

PPL/Env. Mgt. /F-05/2025-26/79

29th November 2025

The Deputy Director General of Forest (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office,
A/3, Chandrasekharpur,
Bhubaneswar -751023

Sub: Half Yearly EC compliance report for the period from April 2025 to September 2025.

- Ref: i. Environment Clearance vide letter No. 11011/17/86-IA-II dated 23rd July 1990.
 - Environment Clearance vide letter No.- J-11011/251/2003-IA.II (I) dated 02nd December 2004.
 - Environment Clearance vide letter No. J-11011/370/2008-IA. II (I) dated 05th October 2010.
 - Environment Clearance vide letter No. J-11011/370/2009-IA-II (I) dated 27th August 2020.

Respected Sir,

With Reference to the above subject & Environment Clearance, we are submitting herewith the half yearly compliance report for the period from April 2025 to September 2025 along with the relevant annexures for your kind perusal.

Thanking you

Yours faithfully,

For M/s Paradeep Phosphates Limited

Palanisamy Velusamy

Chief Manufacturing Officer & Unit Head

Encl: As above.

- CC: 1.The Member Secretary, Central Pollution Control Board, Paribesh Bhawan, East Arjun Nagar, New Delhi -110032.
 - The Rigonal Director, Central Pollution Control Board, South end conclave, 5th Floor 1582, Rajdanga Main Road, Kolkata-700107
 - The Member Secretary, State, Pollution Control Board, Odisha, A/118, Nilkantha Nagar, Unit-VIII, Bhubaneswar -751012.

PARADEEP PHOSPHATES LTD.

CIN No.:L241290R1981PLC001020

P.O:PPL Township Paradeep-754145 Dist. Jagatsinghpur, Odisha, India

Tel.: +06722 259600

www.paradeepphosphates.com, E-mail: info@adventz.com Registered Office: Bayan Bhawan, Pt. J. N. Marg, Bhubaneswar -751001

HALF YEARLY EC COMPLIANCE REPORT

For the period from April 2025 to September 2025



PARADEEP PHOSPHATES LIMITED
PARADEEP, JAGATSINGHPUR, ODISHA -754145

STATUS OF COMPLIANCE OF ENVIRONMENTAL CLEARANCE CONDITIONS REF: LETTER No. 11011/17/86-IA-II; DATED. 23rd JULY 1990

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The project authority must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government of Odisha.	We are strictly adhering to the stipulations made by the State Pollution Control Board, Odisha and the State Government of Odisha.
1.DAP	PLANT:	
i	All stacks shall confirm to the prescribed norms of 150 mg/Nm ³	The stacks emissions (PM) are well within the prescribed limit. Please refer Appendix - A.
ii	In exigency when waste water cannot be recycled shall discharge to effluent drain leading to the Effluent Treatment Plant.	Effluent is recycled to PAP through close pipeline in case of emergency effluent is being sent to ETP through close pipeline.
2.SULI	PHURIC ACID PLANT:	l .
i	Quantification of Sulphur muck generation, its use in DAP plant shall be done and submitted to the Board.	Quantity of Sulphur muck generation and utilization is being submitted to the State Pollution Control Board regularly on monthly basis.
		Please refer Annexure-I.
ii	Sulphur Dioxide emission through stack shall not exceed 2 Kg/Ton of 100% concentrated acid produced.	SO ₂ emission through stack is well within the prescribed limit.
3 PHO	SPHORIC ACID PLANT :	Please refer Appendix – A.
i	No effluent shall be discharged outside the premises of Phosphoric acid plant except Gypsum pond.	PPL has maintained the closed loop system from PAP Plant to Gypsum Pond and vice versa recycled back to PAP. The plant is not discharging any effluent to outside premises.
ii	The unit shall provide scrubbing arrangements for reduction of fluoride from the gaseous emission.	Scrubbing system has been provided for reduction of fluoride from the gaseous emission.
4.CAP	TIVE POWER PLANT :	
1	DM plant waste water to be neutralized before discharge.	DM plant waste water is being recycled to PAP.
2	Any further expansion of the plant either with existing product or any new product can be taken up only with the prior approval of this Ministry.	Noted and Agreed.
3	The project authorities should come with a proposal for bringing the stack emission levels within standards. An action plan in this regard should be prepared and submitted to this Ministry within a period of one year.	Stack emissions level through all the plants are well within the prescribed standards of CPCB/OSPCB. Please refer Appendix – A.
4	Adequate number (a minimum of 3 to 5) of air quality monitoring stations should be set up in the down-	The following online analysers have been installed in PPL. Details are as under:

	wind direction as well as where the maximum ground level concentration is anticipated. Also stack emission should be monitored by setting up automatic stack monitoring units.	Continuous Ambient Air Quality Monitoring Station -1 near Main gate (Time office). Continuous Ambient Air Quality Monitoring Station -2 near Guest House Continuous Ambient Air Quality Monitoring Station -3 near MOP Silo Continuous Ambient Air Quality Monitoring Station -4 near Rock Silo. Continuous stack emission monitoring analysers are installed at Diammonium Phosphate Plant, Sulphuric Acid Plant and Phosphoric acid plant.
5	There should be no change in the stack design without the approval of the State Pollution Control Board.	Noted.
6	A re-examination of the discharge into river should be undertaken at the time of operation of the plant, and if necessary relocation of discharge points into the coastal water should be envisaged.	PPL has installed a recycling arrangement of the treated water from ETP to PAP and for lime slurry preparation. Zero discharge is achieved at both storm drains during non -monsoon.
7	Cooling tower blow down along with spillages, floor washings etc. from Phosphoric acid plant may be fully treated.	Cooling water blow down of Phosphoric acid plant is recycled to Gypsum Pond in a closed circuit. Washings and spillages are re-circulated to reactor through Gypsum Pond.
8	A comprehensive waste water treatment for treating all the liquid effluents including domestic sewage should be set up.	Two numbers of waste water treatment plants namely Effluent Treatment Plant and Sewage Treatment Plant are in place to take care of the industrial effluent as well as domestic sewage respectively.
9	Routine Toxicity – Bioassay based on the effluent with fish and fish food organisms must be carried out at least once a year.	The Bio-assay study is conducted every year. Report for the year 2025 is enclosed as Annexure-II.
10	Fluoride which present in the effluent should be recovered and converted into useful product within a period of two years, in order to meet the effluent standard stipulated by Orissa State Prevention and Control of Pollution Board.	The effluent generated from the PAP is being collected in the Gypsum Pond which is not allowed to go out of the closed circuit of Phosphoric acid plant; it is re-circulated in the process for recovery of P2O5 and fluorine.
11	Slurry water from ponds should be treated for removal of fluoride and phosphate before recycling.	Gypsum Pond water is being re-circulated in the process to recover phosphate and fluoride present in it. The recycling is an integral part of process.
12	The supernatant liquid from Gypsum Ponds at no stage should be allowed to escape into drains.	The water level in gypsum pond is properly maintained with free board to avoid any overflow of liquid and is recycled continuously

		to PAP.		
13	The treated effluent confirming to the prescribed standards should be utilized for green belt development to the maximum extent possible. The green belt should preferably be developed within the plant boundary.	capacity are the prescribeen insta and lawns has plant around morpremises. Green Be of the tot III.	nd treated water bed limit. Water lled in the Tow for utilization of ed massive plore than 7.2 lak colony area a lt coverage are al area. Please	in STP of 150 m ³ /h quality is well within sprinkler system has mship, plant gardens of treated water. PPI antation comprising hs trees within plant and road side. The ea is achieved 40% refer Annexure —
			enclosed as <i>Appe</i>	
14	A plan for complete utilization of gypsum should be worked out within 3 years and in the interim period. The gypsum has to be stored in ponds and a close monitoring of ground water in the vicinity of ponds has to be carried out.	with prope being sold wells have pond and quality are out. The s	er stack manager to outside partie e been construc close monitori ound Gypsum po	in the Gypsum Pond ment. Some of this is es. Ten number of test eted around Gypsum ing of ground water and are being carried opsum /utilization for ws;
		GYPSUM	GENERATION, CO	NSUMPTION & SALE
		MONTH	GENERATION (MT)	CONSUMPTION/ SOLD (MT)
		Apr-25	156100	112986
		May-25	176150	129414
		Jun-25	230950	133367
		Jul-25	200450	130407
		Aug-25	183200	109280
		Sep-25	218150	107407
		TOTAL	1165000	722861
		240 TPD utilization is made by	is installed an of Gypsum. Al Gypsum in cor as a pilot project	nt having capacity of d commissioned for so 1200 meters Road isultation with CPCE t which has approved
15	A preliminary study on the radioactivity level in gypsum and its likely impact on the environment should be carried out within six months.	As per shipment produced of U-238 within the	the MoEF&C of rock phosp gypsum sample & Ra -226. The	C condition every hate along with its sare being analyzed test results are well e is no impact on the Annexure -IV.

Half - Yearly Compliance Report (April 2025 - September 2025)

16	A detailed risk analysis study should be undertaken. Disaster management plan should be prepared after risk assessment within six months.	Already Complied. Please refer Annexure-V.
17	A separate Environment Management Cell with suitable qualified people to carry out various functions related to environmental management should be set up under the control of a Senior Technical Personnel who will report directly to the head of the organization.	A full-fledged Environment Management Section consisting of qualified personnel under a senior technical person has been set up for the periodical monitoring of all environmental related jobs in the plant.
18	The project authorities must set up a laboratory facility for collection and analysis of samples under the supervision of competent technical personnel who will directly report to the Chief Executive.	A well-equipped and full-fledged Environment Management laboratory with NABL accreditation is set up with latest and sophisticated modern analytical instruments for the measurement and analysis of Environmental parameters. The results are informed to the top management as well as the concerned in charge.
19	The project authority will provide adequate funds for environmental control measures along with implementation schedule for all the conditions stipulated above.	Adequate funds have been provided for environmental control measures.
20	The Ministry or any other competent authority may stipulate any further condition after reviewing the impact assessment report or any other reports prepared by the project authority.	Noted.
21	The Ministry may revoke clearance if implementation of the stipulated conditions is not satisfactory.	Noted.
22	The above conditions will be enforced interalia under the Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986 along with their amendments.	Noted.

STATUS OF COMPLIANCE OF ENVIRONMENTAL CLEARANCE CONDITIONS FOR RETROFITING OF PHOSPHORIC ACID PLANT (PAP) FROM 750MTPD TO 1400MTPD & INSTALLATION OF ADDITIONAL TRAIN OF 2000 MTPD SULPHURIC ACID PLANT REF: LETTER No- J-11011/251/2003-IA.II (I); DATED. 02nd DECEMBER 2004

A. Specific Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The gaseous emissions from various process units should conform to the standards prescribed by the concerned authorities from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time, the emission levels should go beyond the prescribed standards. In the event of failure of pollution control system (s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	Being Complied. Gaseous emission level from various process units of the Plant confirms the prescribed norms of CPCB/OSPCB. Adequate air pollution control devices are installed and commissioned to take care of the gaseous emissions. Monitoring report of gaseous emission from various process units is enclosed as Appendix-A.
2	The effluent generation shall not exceed 1860 m3/d in the proposed expansion. The company shall totally utilize the treated effluent by undertaking recycling/ reuse measures. In the existing plant, the waste water generation shall be 1632m3/d. The waste water after treatment after confirming to the prescribed standards shall be discharged into Atharabanki river. The company shall construct guard pond at the outlet of treatment plant before final discharge of effluent into Atharabanki river. The Bio-assay test should be carried out to assess the toxicity of the treated waste water. The treated sewage should be utilized for green belt development.	Effluent generated from plant is treated in ETP and treated water quality is well within the prescribed limit. Treated water is being used in PAP. Zero liquid discharge is maintained during non—monsoon. Treated sewage is being utilized for green belt development. The Bio-assay study is conducted every year. Report for the year 2025 is to be provided in the next Half yearly report.
3	The company shall achieve SO ₂ emission of 1Kg/Ton of Sulphuric acid produced. The acid mist emission should confirm to the prescribed standard of 50 mg/Nm3. The stack height for the Sulphuric acid plant shall be provided as per the guidelines and on the basis of normal plant operations. The scrubbed gases should be let out at the same height of the plant.	The plant is designed to achieve SO ₂ emission less than 1Kg/Ton of Sulphuric acid produced and maintains the same accordingly. The acid mist emission is well within the prescribed limit of 50 mg/Nm3. Pl refer Appendix-A. The stack height for the Sulphuric acid plant has been designed as per the guidelines which is 120 meter height from the ground level. The scrubbed gas passes through the same.
4	To control the total fluoride emission within the prescribed standards of 25mg/Nm3 in the Phosphoric acid plant, the company shall provide fume scrubber system to scrub the fluoride.	Fumes Scrubber has already been installed and commissioned to control the fluoride emission in the Phosphoric acid plant. We are regularly monitoring the fluoride in the stack and results are found well within the prescribed standard. Pl refer Appendix – A.

		Fumes Scrubber
5	The company shall explore the possibility and technical feasibility of treating Hydrofluorosilisic acid and intimate to this Ministry.	The plant has been installed and commissioned the Fluorine Recovery Unit (FRU) to take care of Hydrofluorosilisic acid.
6	The company shall continuously monitor the SO2 emission in both the Sulphuric acid plant streams at the same time. The emission from the Sulphuric acid plant shall be controlled by installation of alkali scrubber. Monitoring of SO2 and fluorine should be carried out continuously as per the Central Pollution Control Board guidelines.	SO ₂ emission level is being monitored through online continuous SO ₂ analyzer and real time data is being transmitted to the OSPCB and CPCB server. Alkali scrubber has been provided to control emission from Sulphuric acid plant. Online HF analyzer has been installed and commissioned in Phosphoric acid plant stack.
7	Waste heat generated during Sulphur burning shall be utilized for power generation	In Sulphuric acid Plant during Sulphur burning, the waste heat is being recovered through waste heat recovery boiler for power generation.
8	The gypsum pond shall be provided with proper lining at the bottom as well as side of the dykes. Accumulated gypsum shall be properly capped. The low —lying areas in the south of gypsum pond should be rehabilitated. The Sulphur muck should be disposed off in the impervious lined pit. The project should take immediate measures to remove the gypsum from the channels in the existing ponds so that adequate space in the channel is available for leachate collection especially during monsoon. The leachate should be sent to ETP for further treatment. Further a new gypsum storage pond properly lined with HDPE along with drainage channel should be constructed for gypsum disposal. The ground water quality around the gypsum disposal area should be monitored and data submitted to the Ministry.	The Sulphur muck is being reused in DAP plant as filler. The old gypsum pond -1 is not in use. Gypsum Pond -2 has been constructed with HDPE lining as per guidelines of CPCB guideline which in operation. PPL is selling gypsum to cement industries and gypsum board factories. In addition to this PPL has been installed and commissioned the 240 TPD Zypmite plant for utilization of gypsum.

9	Green belt of adequate width and density in 25% of the plant area should be provided to mitigate the effects of fugitive emission all around the plant. The development of green belt should be consultation with the DFO as per the CPCB guidelines.	PPL has planted massive plantation comprising around more than 7.2 lakhs trees within plant premises, colony area and road side. The Green Belt coverage area is achieved 40% of the total area. Please refer Annexure-III.
10	The company should take measures for the harvesting of rain water to recharge the ground water.	The average ground water table in the project area is 2 to 3 meters below ground level. During rainy season almost all open area are submerged. PPL has number of open ponds inside PPL Township which naturally receive surface runoff of the township area during rainy season and recharge the ground water.
11	Recommendations made in the Risk Assessment report for the risk mitigation should be strictly complied with.	Already Complied. Please refer Annexure -V.
B. Ger	neral Conditions:	
Sl. No.	CONDITIONS	COMPLIANCE STATUS
1	The project authority shall strictly adhere to the stipulations of the Orissa Pollution Control Board.	The plant is strictly adhering to all stipulations of statutory bodies relevant to the plant.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alteration in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted.
3	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January,2000. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety inspectorate etc. must be obtained.	We are strictly complying with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000.
4	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of Hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003. Authorisation from State	The Plant is being complied with the rules and regulations concerning handling and disposal of Hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.

	Pollution Control Board must be obtained for collection/treatment/storage /disposal of hazardous wastes.	Authorisation obtained from OSPCB, Odisha vide no - IND-IV-HW-02/68/2, dated 31.03.2025 is valid up to 31-03-2027.
5	The overall noise levels in and around the plant area should be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should confirm to the standards prescribed under EPA rules,1989 viz. 75dBA(day time and 70 dBA (night time).	Necessary measures are taken by the Plant to keep the work zone and ambient noise level well within the limit. Noise monitoring report is enclosed as Appendix - A.
6	Occupational health surveillance programme should be undertaken as regular exercise for all the employees, especially for those engaged in handling hazardous substances. The first Aid facility in the occupational health centre should be strengthened and the medical records of each employee should be maintained separately.	Occupational health surveillance of the workers is being carried out on a regular basis and records are being maintained. During the year 2024-25 medical checkup has been done for 669 Nos. of Employees and 2656 Nos. of contract workers.
7	The project proponent should have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education of children festivals, health centre sanitation facilities, drinking water supply community awareness and employment to local people whenever and wherever possible both for technical and nontechnical jobs.	M/s. PPL has taken various initiatives for the socio-economic development of its surrounding villages. CSR report for the year 2025-26 shall be submitted in the next half year report.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and Risk Analysis Report.	Already Complied. Please refer Annexure -V.
9	A separate Environment management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	Environment management cell with full-fledged laboratory facilities is already in place.
10	The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.	M/s. PPL has provided adequate funds and no fund is diverted to any other purpose.

11	The implementation of the project vis-a-vis environmental action plans will be monitored by Ministry's Regional Office at Bhubaneswar / State Pollution Control Board / Central Pollution Control Board A six monthly compliance status report should be submitted to monitoring agencies.	We are submitting six monthly compliance status report to Ministry's regional office at Bhubaneswar/ State Pollution Control Board/ Central Pollution Control Board.
12	The project proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This should be advertised within seven days from the date of issue of the clearance letter at least in two local News papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.	Already Complied.
13	The project authorities should inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work if any.	Already Complied.

COMPLIANCE OF CONDITIONS OF ENVIRONMENT CLEARANCE FOR ENHANCEMENT OF PRODUCTION CAPACITY

REF: LETTER No - J-11011/370/2008-IA.II (I); DATED. 05th OCTOBER 2010

A. Specific Conditions:

Sl. No.	Conditions	Compliance status
1	The company shall comply with all the conditions stipulated in the environmental clearance issued vide letter no. J -11011/17/86-IA-II dated 23 rd July ,1990.	We are submitting herewith the separate compliance status of environmental clearance issued vide letter no. J -11011/17/86-IA-II dated 23 rd July, 1990.
2	On line SO2, NOx and NH3 analyzer shall be installed to monitor ambient air. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. Nom 826(E) dated 16th November, 2009 shall be followed.	On line Ambient Air Quality monitoring stations for SO2, NOx and NH3 have been installed and commissioned. The real time data thus generated is meeting the prescribed standards. Please refer <i>Appendix – A</i> .
3	The gaseous emissions (PM2.5, PM10, SO2, NOx, HCl, and NH3 and urea dust) from various units shall conform to the prescribed standards. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system (s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	We are strictly monitoring the gaseous emissions from various units. It is observed that the emission levels are well within norms. Please refer Appendix – A. Monitoring of parameters like HCL & Urea dust are not applicable to our Industry since we are not manufacturing Urea.
4	As proposed, wet scrubbing system to DAP and Alkali scrubbing system to PAP plant shall be provided to control fluoride and emissions. Cyclones, Venturi scrubbers and mist eliminators along with stack of adequate height shall be provided to DAP plant to control particulate emissions. Alkali scrubber shall be provided to Sap unit to control SO2 and SO3 .V2O5 catalyst and candle filters shall be provided to SAP unit to improve efficiency and reduce emissions. PM2.5, PM10, SO2, NOx, HCl,NH3 and fertilizer dust emissions shall be monitored.	Wet scrubbing system at DAP plant, fumes scrubbing system at PAP Plant have been installed and commissioned to control fluoride and emissions. Cyclones, Venturi scrubbers and mist eliminators along with stack of adequate height have been provided to DAP plant to control particulate emission. Alkali scrubber has been installed and commissioned in SAP Plant to control SO ₂ and SO ₃ .
5	Double Contact Double Absorption (DCDA) process shall be adopted in Sulfuric Acid Plant (SAP). Continuous SO2 monitoring system shall be provided in the stack of SAP unit. Fluorine Recovery Unit (FRU) shall be installed for recovering Fluoro- silicic acid and fluoride levels shall be monitored in ambient air.	Double Contact Double Absorption (DCDA) process has been adopted in Sulfuric Acid Plant (SAP). Continuous SO ₂ monitoring system in stack of SAP unit has been provided. Fluorine Recovery Unit (FRU) has been installed and commissioned.

6	Fugitive emissions from different sources shall be controlled, regularly monitored and reports submitted to the Regional Office at Bhubaneswar. To control fugitive emissions, regular monitoring of sub floor environment shall be carried Leakages in form of gases, liquid and dust emission shall be checked and mitigative measures taken. The company shall provide de-dusting system at all the transfer points in the bagging system.	Bag filters are installed at all the transfer points from Jetty to Plant to control fugitive emissions. We are monitoring fugitive emissions from different sources regularly. The six monthly monitoring report is herewith enclosed as Appendix - A.
7	The company shall upload the status of compliance of the stipulated environmental clearance conditions including results of monitored data on its web site and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF, the respective zonal office of CPCB and the Orissa Pollution Control Board. The levels of RSPM (PM10,PM2.5), NH3 and NOx (ambient levels) and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	Compliance status of the stipulated environmental clearance conditions including results of monitored data is being uploaded on our company web site. The same data is being submitted to Regional office of MoEF, CPCB and State Pollution Control Board Odisha respectively. We are monitoring the levels of RSPM (PM10, PM2.5), NH3 and NOx (ambient levels) and emissions from the stacks. The same data are being displayed at our main gate of the company through electronic digital display board.
8	Specific energy consumption shall not exceed 5.127G.cal/MT of Urea production. Optimization of cycle of concentration (COC) to 6 and blow down frequency from the cooling towers shall be reduced.	This condition is not applicable to our industry since we are not manufacturing Urea.
9	Steam stripping system shall be installed in the ammonia plant to recover ammonia as well as bottom water from condensate.	This condition is not applicable to our industry since we are not manufacturing ammonia
10	Total water requirement from Taladanda Canal shall not exceed 15,000 m3 /day and prior permission shall be obtained for drawl of water from the competent authority. A copy of permission shall be submitted to the Ministry's Regional Office at Bhubaneswar within 3 months of issue of environment clearance letter.	Agreement letter regarding drawl of water from water resources department, Govt. of Odisha is enclosed as <i>Annexure-VI</i> .
11	All the pond water shall be completely recycled and reused. Zero discharge shall be adopted and no waste water shall be discharged outside the premises.	We are recycling all the Gypsum Pond water to process. Effluent Treatment Plant has been installed for treatment of waste water. Zero discharge is adopted and no waste water is being discharged outside the premises.
12	The specific water consumption and waste water generation shall not exceed 5.1 m3/MT of urea and 0.9 m3/MT of urea respectively. Accordingly the company shall undertake measures for water conservation.	This condition is not applicable to our industry since we are not manufacturing Urea.

13	The waste water from Phosphoric acid Plant (gypsum slurry) shall be sent to gypsum pond. The overflow from PAP, DAP plant, Offsite and entire effluent from SAP shall be treated in effluent treatment plant (ETP). The waste water from Captive Power Plant (CPP) shall be treated in neutralization tank. Waste water from the existing Gypsum pond shall be pumped to ETP for further treatment. Treated water from ETP shall be reused in Ball Mill of PAP. The Sewage and all other effluents shall treated in the Sewage treatment plant (STP) and used for green belt development after meeting the norms specified by CPCB and OSPCB.	We are sending the waste water from Phosphoric acid Plant (gypsum slurry) to gypsum pond. The washings from PAP, DAP plant, Offsite and entire effluent from SAP is being treated in effluent treatment plant (ETP) and treated water is used in Ball mill of PAP. The waste water from Captive Power Plant (CPP) is being treated in neutralization tank. STP has been provided for sewage effluent treatment and treated water is being reused for green belt development after meeting the norms specified by CPCB and OSPCB.
14	Ground water shall be monitored in around the project site through peizometer wells as per CPCB guidelines.	Piezometers are installed and ground water is being monitored.
15	Another gypsum pond with protective liner shall be constructed as per recommendations of NEERI as per CPCB guidelines.	New gypsum pond is constructed with protective liner (HDPE) as per CPCB guidelines.
16	Phospho gypsum shall be sold to cement manufacturers or a granulation plant shall be installed as proposed to utilize Phospho gypsum.	Phospho gypsum is sold to cement manufacturers. We have installed Zypmite plant of capacity 240 TPD and received Consent to Operate. The plant is running successfully.
17	Spent Catalyst (V2O5) shall be properly stored as per the CPCB guide lines and disposed off to TSDF. Sulfur muck and ETP sludge shall be reused in-house as filler in DAP plant. Spent resin from DM plant shall be sold to authorized agency. Used or spent oil shall be disposed off to authorized re-processor.	Spent Catalyst and Spent Resin has been properly stored and disposed off in PPL Engineering Landfill area. We are reusing Sulfur muck and ETP sludge in-house in DAP plant. Used oil is being disposed to authorized re-cycler/re-processor.
18	As proposed green belt shall be developed in 854 acres (37%) out of 2282.4 acres.	PPL has planted massive plantation comprising around more than 7 lakhs trees within plant premises, colony area and road side. The plant has installed water sprinkler system in the Township, plant gardens and lawns. The Green coverage area is achieved 40% of the total area. Please refer Annexure-III.
19	Action plan prepared for the complete remediation of the site shall be implemented in consultation with NEERI within 5 years of the issue of this environment clearance and six monthly report submitted to the Ministry and its Regional Office at Bhubaneswar.	Already Complied. Please refer Annexure-VII.

20	All recommendation mentioned in the risk assessment report shall be implemented in a time bound manner and an action plan shall be prepared and submitted to the Ministry and its Regional Office at Bhubaneswar.	Complied. Please refer Annexure -V.
21	Risk analysis shall be done again after one year and report submitted to the Ministry and its Regional Office at Bhubaneswar. Efforts shall also be made to reduce risk mentioned in the risk assessment report.	Complied. Please refer Annexure -V.
22	The ammonia unloading arms in the jetty shall be provide with "Quick release couplings" for automatic disconnection of ships from unloading arm during unloading in case of bad weather.	"Quick release coupling" has already been provided in ammonia unloading arms in the jetty.
23	Total quantity of ammonia storage in the plant shall not exceed 40,000Tons at a time.	Total quantity of ammonia storage in the plant is not exceeding 40,000Tons at a time.
24	The company shall undertake adequate protection measures for handling of ammonia vapor in case of plant upset condition. Safety valve exhaust and drains shall be connected to flare and vent stack. During transfer of materials spillage shall be avoided and garland drains shall be constructed to avoid mixing of accidental spillage with domestic waste and storm drains.	Ammonia flare system is installed and commissioned for handling of ammonia vapor in case of plant upset. Safety valve exhaust and drains has been connected to flare and vent stack. Garland drains have been constructed to avoid mixing of accidental spillage with domestic waste and storm drains.
25	The company shall make the arrangement for protection of possible fire hazards as per OISD 117 during manufacturing process in material handling.	We have full phase Fire & safety department along will state -of -art equipment, facilities to protect all possible fire hazards as per OISD 117 during manufacturing process in material handling.
26	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.	Occupational health surveillance of the workers is being carried out on a regular basis and records are being maintained. During the year 2024-25 medical checkup has been done for 669 Nos. of Employees and 2656 Nos. of contract workers.
27	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for fertilizer industries shall be implemented.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for fertilizer industries have been implemented. Please refer <i>Annexure -VIII</i> .
28	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied.

B. General Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS
1.	The project authority shall strictly adhere to the stipulations of the Orissa Pollution Control Board (OPCB) / State Government or any statutory body.	We are strictly adhering to all stipulations of the statutory bodies relevant to our plant.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alteration in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted and agreed.
3	The gaseous emissions (SO2, HCl, NOx, NH3, fertilizer dust) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time, Emission data shall be periodically monitored and reports submitted to Ministry's Regional office at Bhubaneswar, CPCB and OPCB.	We are strictly monitoring the gaseous emissions (PM25, PM10, SO2, NOx and NH3, fertilizer dust) from various units. Results of the same are well within the prescribed standards. Half yearly reports are being submitted to the Ministry's Regional office at Bhubaneswar, CPCB and OPCB. Monitoring of HCL is not applicable to us.
4	All the waste waters generated from the various processes shall be recycled/reused in the plant and zero discharge shall be maintained. The domestic waste water shall be treated in septic tanks and treated waste shall be used for irrigation in the green belt.	All the waste water generated from DAP plant is recycled to process itself. Further, adequate Effluent Treatment Plant has been provided to treat all the waste water from other processes and the treated water is being used in the plant. STP has also been provided to treat the domestic waste water and treated water is used for greenbelt development.
5	At no time the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	It is being complied.
6	The locations of ambient air quality monitoring stations shall be reviewed in consultation with the OPCB and additional stations shall be installed, if required, in the down wind direction as well as where maximum ground level concentrations are anticipated.	We have already reviewed the existing locations in consultation with the SPCB Odisha officials and four Nos. of online AAQMS (Ambient air quality monitoring station) have been installed.

7	Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.	Scrubber and appropriate height of stacks are provided as per CPCB guidelines for control of emissions. All scrubbed water is taken to ETP for further treatment.
8	All the storage tanks will be under negative pressure to avoid any leakage. Breather valves, N2 Blanketing and secondary condensers with brine chilling system shall be provided for all the storage tanks to minimize vapor losses. All liquid raw materials shall be stored in Storage Tanks and drums.	All the Storage Tanks are operated and maintained as per design parameters & conditions provided by the manufacturer. All liquid raw materials are stored in Storage Tanks and drums.
9	The company shall undertake following Waste Minimization measures: Metering and control of quantities of active ingredients to minimize waste. Reuse of by products from the process as raw materials or as raw material substitute in other processes. Use of automated filling to minimize spillage. Use of closed feed system into batch reactors. Venting equipment through vapor recovery system Use of high pressure hoses for equipment cleaning to reduce waste water generation.	Waste Material taken as filler in DAP plant are Sulphur Muck, Storm water drain sludge & ETP sludge. New initiatives have been implemented to minimize the waste.
10	Fugitive emissions in work zone environment, product and raw material storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/ Central Pollution Control Board.	We are regularly monitoring the fugitive emissions. Results of the same are within the prescribed standards. Last six months data for the same is mentioned under special condition no.6 as above.
11	The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 as amended time to time.	We are abiding by all the rules as mentioned under Manufacture. Storage and Import of Hazardous Chemicals Rules, 1989 and Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 as amended time to time.
12	The overall noise levels in and around the plant area shall be kept well within the standards by noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under Environment (Protection) Act' 1986 Rules' 1989 viz. 75dBA (day time) and 70 dBA (night time).	Stationary noise levels are being monitored at different locations of the plant. Acoustic hoods, silencers, enclosures etc. are provided to control the noise level. Monitoring data of Ambient & Work Zone noise levels is enclosed here with as Appendix – A.

13	The company shall develop rain water harvesting structures to harvest the runoff water for recharge of ground water.	The average ground water table in the project area is 2 to 3 meters below ground level. During rainy season almost all open area are submerged. PPL has number of open ponds inside PPL Township that naturally receive surface runoff of the township area during rainy season and recharge the ground water.
14	The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco development plan should be submitted to the SPCB within three months of receipt of this letter for approval.	Complied
15	A separate Environment management cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and monitoring functions.	Environment management cell is already in place with full-fledged laboratory facilities. It carries out all relevant Environmental Management and monitoring functions. Our Environment laboratory is also NABL accredited.
16	As proposed, Rs 25.02 Crores and Rs 1.24 Crores shall be ear marked towards capital cost and recurring cost / annum for pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State government along with the implementation schedule for all the conditions therein. The funds so provided shall not be diverted for any other purpose.	Noted and being complied.
17	The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry / OPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the company.	We are submitting six monthly compliance status reports to MoEF&CC, OSPCB, CPCB and uploading the same data in website of the company.
18	A copy of the clearance letter shall be sent by the proponent to the Panchayat, Zila Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any from whom suggestions / representations, if any were received while processing the proposal.	Already Complied.
19	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by	It is being complied.

	e mail) to the respective Regional Office of MoEF&CC, the respective zonal office of CPCB and the Orissa Pollution Control Board.	
20	The environmental Statement for each financial year ending 31 st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF by e-mail.	The environmental Statement for each financial year ending 31 st March in Form-V is being submitted to the State Pollution Control Board Odisha and the same is being displayed in the company website.
21	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the OPCB/Committee and may also be seen at website of the Ministry at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.	Complied.
22	The project authority shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Already Complied.

COMPLIANCE TO THE CONDITIONS OF ENVIRONMENT CLEARANCE FOR EXPANSION OF FERTILIZER MANUFACTURING UNIT BY M/s, PARADEEP PHOSPHATE LIMITED AT PPL TOWNSHIP, DISTRICT – JAGATSINGHPUR, ORISSA.

REF: LETTER No - J-11011/370/2009-IA-II (I); DATED. 27th AUGUST 2020

A. Specific Conditions:

Sl. No.	CONDITIONS	COMPLIANCE STATUS	
1.	The Company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented.	It is being complied.	
2.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening /green belt development/horticulture.	Zero Liquid Discharge is being maintained and treated effluent is used reused in the process. No waste/treated water is discharged outside the premises.	
3.	Continuous Online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge & the pollutants concentration and the data to be transmitted to the CPCB & SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Continuous Online (24x7) monitoring system for stack emission, flue gas effluent for the completed projects are installed and real time monitoring data is transmitted to OSPCB/CPCB server.	
4.	Total fresh water requirement shall not exceed 1276 cum/hr, proposed to be met from the Taladanda Canal. Prior permission in this regards shall be obtained from the concerned regulatory authority.	Noted. Total fresh water quantity shall not exceed 1276 cum/hr.	
5.	Process effluent/any waste water shall not be allow to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.		
6.	Occupational health center for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers and employees shall be provided with required safety kits/mask for personal protection.	Occupational health center for surveillance of the worker's health has set up. The health data is used in deploying the duties of the workers. All the required PPE's are provided for workers & employees.	

7.	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.	Training is imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training is also provided to employees on regular basis.	
8.	The unit shall make arrangements for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting systems shall be as per the norms.	Arrangements are made for protection of possible fire hazards. Firefighting systems are implemented as per the norms.	
9.	The Project Proponent shall undertake waste minimization measures as below: (a) metering and control of quantities of active ingredients to minimize waste, (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes, (c) Use of automated filling to minimize spillage, (d) Use of close feed system into batch reactors, (e) Venting equipment through vapor recovery system, (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.	Noted and being complied.	
10.	The green belt of at least 5 -10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of the tree canopy shall be monitored through remote sensing map.	The plant has developed greenbelt more than 40% of the total area with plant species in consultation with the Forest dept.	
11.	As committed Rs. 27.64 Crores shall be allocated for Corporate Environment Responsibility (CER), and shall be utilized for meeting the commitment of issues raised during public consultation / hearing. The CER plan shall be completed before commissioning/expansion of the project.	Noted, allocated fund shall not be diverted for any other purpose.	
12.	A separate Environmental Management Cell (having qualified person with Environmental Science/ Environmental Engineering/ specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions.	A separate Environmental Management Cell (having qualified person with Environmental Science/ Environmental Engineering/ specialization) equipped with full-fledged NABL accredited laboratory is in place to carry out the environmental management and monitoring functions.	
13.	The Project Proponent shall implement site specific conservation plan and wild life management plan for the presence of Schedule - 1 species in the study area. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.	Noted.	

14.	The Project Proponent has agreed to install 1 MW Solar Power Unit.	Noted and agreed, presently 256 KW Solar Power Unit has installed and 1 MW solar power in under process.	
B. Gen	eral Conditions:	E AFR	
Sl. No.		COMPLIANCE STATUS	
1.	No further expansion or modifications in the plant other that mentioned in EIA Notification, 2006 and its amendments shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alternations in the project proposal from those submitted to the Ministry/SEIAA, as applicable, to access the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable.	
2.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Complied.	
3.	The overall noise levels in and around shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under the Environment (Protection) Act, 1986, Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	It is being maintained. Pl refer Appendix -A	
4.	The company shall undertake all relevant measures for improving the Socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administrations and shall be implemented. The company shall undertake eco- developmental measures including community welfare measures in the project area for the overall improvement of the environment.	ic es es d. al	
5.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management pollution control measures shall not be diverted for any other purpose	It is being complied. The earmarked funds for environment management pollution control measures are not diverted for any other purpose.	

	project proponent to the concerned Panchayat, Zila parishad/municipal corporation, urban local body and the NGO, if any from whom suggestions/ representations, if any, were received while processing the proposal.	Complied.
7.	The project proponent shall also submit six monthly on the status of compliance of the stipulated Environmental Clearance conditions including result of monitoring data (both in hard copies as well as e-mail) to the respective Regional Office of MOEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Being complied.
8.	The Environmental Statement for each financial year ending 31st March in FORM - V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of the Environmental Clearance conditions and shall also be sent to the respective Regional Offices of MOEF&CC by e-mail.	Being complied.
9.	The project proponent shall inform the public that the project has been accorded Environmental Clearance by the Ministry and the copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of Ministry and at https://parivesh.nic.in/. This shall be advertise within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Already published in newspaper as under PARADEEP PHOSPHATES LIMITED PL Javaharlal Notro Marg. Brubaneswal 2751 001 PUBLIC NOTICE This has to inform all that Me Paradese Phosphates Limited has received Environment Clearance from Ministry of Environment, Forest and Climate Change for expansion of like Fertilizer manufacturing unit for existing DAP Plant from 1.5MMTPA to 1.9MMTPA and now Coal Handling Plant of 7.0MMTPA Lammonium Nitrate Plant of 0.35MMTPA. Nitric Abid Plant of 0.33(0.05MMTPA Cond.Nit Abort GBSP Plant of 0.34MTPA and Atuminium Fluoride Plant of 9500 MMTPA. The copy of the clearance letter is available with OSPCB / Control end also may be seen at website of the Ministry www.mosf.gov.in and at https://parivesh.nic.in/
		PARADEEP PHOSPHATES LIMITED Pt. Jawahada Nahru Marg. Bhubanaswar - 751 001।

Half - Yearly Compliance Report (April 2025 - September 2025)

10.	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied, already informed.	
11.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Noted.	

LIST OF ENCLOSURES

APPENDIX - A	SIX MONTHLY MONITORING REPORT
ANNEXURE - I	SULPHUR MUCK GENERATION & UTILIZATION
ANNEXURE - II	BIO -ASSAY (TOXICITY) STUDY
ANNEXURE - III	PLANTATION & GREEN BELT
ANNEXURE - IV	RADIOACTIVITY REPORT
ANNEXURE - V	RISK ANALYSIS REPORT
ANNEXURE - VI	WATER WITHDRAWAL AGRREMENT
ANNEXURE - VII	NEERI COMPLIANCE REPORT
ANNEXURE - VIII	CREP INITIATIVES
	ANNEXURE - II ANNEXURE - III ANNEXURE - IV ANNEXURE - V ANNEXURE - VI ANNEXURE - VI



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Phone: (033) 4044-3380 / 3381 / 3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-26/054		Issue Date: May 03, 2025	Page 1 of
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address : Paradeep, Odisha			
Your Ref. No. : 5500007609, dtd. 16.08.2024			
Sample Description	: Ambient Air	Equipment used:	
Sample ID No.	: AP-AAQ/25-26/054	Ambient Fine Dust Sampler	
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 2 Resperible Dust Sampler	0.01.26
Sampling Location	: Near AAQMS # 01	ID No.: RVB/RDS/APM460/BL/05, Cal. Valid up	to: 02.11.25
Date & Time of sampling	: 25.04.2025 (10:15 A.M.)-26.04.2025 (10:15 A.M.)	Environmental conditions	1

: 25.04.2025 (10:15 A.M.)-26.04.2025 (10:15 A.M.)

Duration of Sampling : 24Hrs. Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr. Souvik Banerjee

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 26.04.2025 : 03.05.2025 Analysis Completed on

Barometric Presure: 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, C₆H₆, BaP

Weather Condition: Clear

Temperature: Max: 37.0°C & Min: 27.0°C

TEST FINDINGS:

SI. No.	110-27-20-20-20-20-20-20-20-20-20-20-20-20-20-	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L	µg/m³	57.1	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m³	60.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.30	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	15.16	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	13.71	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVB/SCP/01/10 (indephenol Method) issue No. 04, Issue Date: 10.01.2018	µg/m³	15.01	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDR) spectroscopy	mg/m³	0.743	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.091	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	0.371	6.0
11.	Benzene as C ₈ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.27	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit Nickel 5 ng/m3, Arsenic: 0.25 ng/m3, Benzene 1 µg/m3 & Benzo(a)Pyrene: 0.5 ng/m3

Report Verified by

Reviewed & Authorised by

Klar (Dr. R. KARIM)

Technical Manager **Authorised Signatory**

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

Results relate only to the parameters tested.

The test report shall not be reproduced, except in full, without written approval of the Company.



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9. BENTINCK STREET, KOLKATA - 700 001

Phone: (033) 4044-3380 / 3381 / 3382 / 3383, Website: www.rvbriggs.com

E-mail ; rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25	-26/055	Issue Date : May 03, 2025	Page 1 of 1
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address	: Paradeep, Odisha		
Your Ref. No.	: 5500007609, dtd. 16.08.2024		
Sample Description	: Ambient Air	Equipment used:	
Sample ID No.	: AP-AAQ/25-26/055	Ambient Fine Dust Sampler	THE STATE OF THE S
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid up Resperble Dust Sampler	to: 20.01.26
Sampling Location	: Near AAQMS # 02	ID No.: RVB/RDS/APM460/BL/05, Cal. Val.	d upto: 02.11.25
Date & Time of sampling	: 24.04.2025 (10:00 A.M.)-25.04.2025 (10:00 A.M.)	Environmental condit	ions
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	191
Sampling Plan :	: RVB/FM/45	Temperature : Max: 37.0°C & Min: 27.0°	С
Sampling Carried out by	; Mr. Souvik Banerjee	Barometric Presure : 755 mmHg	
Method of Sampling	: As per CPCB guidelines (Volume-I)		
Analysis Started on	: 26.04.2025	Parameters Tested: PM _{2.5} , PM ₁₀ , S	O2, NO2, O3, NH3,
Analysis Completed on	: 03.05.2025	CO, Pb, Ni, As, C ₆ H ₆ , BaP	

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	54.2	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	59.1	100 (24 Hourly.)
3,	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.66	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	19.49	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	15.92	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV8/SOP:01/10 (Indophenol Method) issue No. 04, Issue Date: 10.01.2018	µg/m³	13.53	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.760	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22); 2004	µg/m³	0.075	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10,01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SCP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10,01,2018	ng/m³	0.371	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.67	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m², Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Gayen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

* Results relate only to the parameters tested.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25	-26/056	Issue Date : May 03, 2025	Page 1 of 1
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address	: Paradeep, Odisha		
Your Ref. No.	: 5500007609, dtd. 16.08.2024		
Sample Description	: Ambient Air	Equipment used:	
Sample ID No.	: AP-AAQ/25-26/056	Ambient Fine Dust Sampler	
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 2 Resperible Dust Sampler	20.01.26
Sampling Location	: Near AAQMS # 03	ID No.: RVB/RDS/APM460/BL/05, Cal. Valid up	nto: 02.11.25
Date & Time of sampling	: 22.04.2025 (09:30 A.M.)-23.04.2025 (09:30 A.M.)	Environmental conditions	1
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	
Sampling Plan :	: RVB/FM/45	Temperature: Max: 36.0°C & Min: 27.0°C	
Sampling Carried out by	: Mr. Souvik Banerjee	Barometric Presure : 755 mmHg	
Method of Sampling	: As per CPCB guidelines (Volume-I)	100 - 100 100 100 100 100 100 100 100 10	
Analysis Started on	: 26.04.2025	Parameters Tested: PM25, PM10, SO2,	NO ₂ , O ₂ , NH ₃ ,

TEST FINDINGS:-

Analysis Completed on

: 03.05.2025

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	52.5	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	57.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.21	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	20.45	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	14.81	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indophenol Method) issue No. 94, Issue Date: 10.01.2018	µg/m³	14.82	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Inha-Red (NDIR) spectroscopy	mg/m ³	0.800	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.087	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Insue No. 04, Issue Sute: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SCP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Cate: 10.01,2018	ng/m ³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m ³	<0.5	1.0

Minimum detection Limit: Nicket: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 µg/m²& Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Reviewed & Authorised by

CO, Pb, Ni, As, CoHe, BaP

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25-26/057	Issue Date : May 03, 2025	Page 1 of 1
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issued to : M/S.

: M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-26/057

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location : Near AAQMS # 04
Date & Time of sampling : 23.04.2025 (09:45 A.M.)-24.04.2025 (09:45 A.M.)

Date & Time of sampling : 23:04:2025
Duration of Sampling : 24Hrs.

Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr. Souvik Banerjee

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 26.04.2025 Analysis Completed on : 03.05.2025 Equipment used:

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/20, Cat. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/BL/05, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature : Max: 37.0°C & Min: 27.0°C

Barometric Presure: 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3.

CO, Pb, Ni, As, CeHe, BaP

TECT		un ii	NGS:-
100	-	MID JUI	

SI. No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	45.0	60 (24 Hourly.)
2.	PM _{t0} (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	63.2	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.37	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	21.17	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.73	180 (1 Hourly.)
6,	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indophenol Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	15.50	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispensive Infra-Red (NDIR) spectroscopy	mg/m ³	0.821	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.066	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₅ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.00	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Gayer.

Reviewed & Authorised by

(Dr. R. KARIM)
Technical Manager
Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



B1931PTC007007

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	PORT
11	

Certi	ficate No. AP-FG/25-26/163	Issue Date: April 28, 2025		Page 1 o
	ed to	: M/S. M/S. PARADEEP PHOSPHATE LTD.		,ge 1 0
Addr	ess	: Paradeep, Odisha.		
Your S.O. No.		: 5500007609, dtd. 16.08.2024		
Samp	le Description	: Stack Gas / Flue Gas	E	quipment used:
	le ID No.	: AP-FG/25-26/163	Stack Monitoring	
Vame	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMR	U07 (Cal. Validity: 30.04.2025
		Paradeep, Odisha.		rameters Tested
	k time of sampling	: 22.04.2025 (03:30 P.M. to 04:15 P.M.)	Physical & General	al c
	ling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, C	ias flow, O2, CO2 & CO
	ling Carried out by	: Mr. Souvik Banerjee	Chemical :	
	sis Started on	: 26.04.2025	SO2 & Acid Mist	
_	sis Completed on	: 28.04.2025	1-0-ceepsawwinistro-	
Α.	General information about stack		- 17	
2.	Stack connected to	: SAP - A		
3.	Emission due to	: Process Emmision		
4.	Material of construction of stack Shape of stack	; M.S.		
5.	Whather stack is provided with	: Circular,		
В.	Whether stack is provided with per Physical characteristics of stack	manent platform & ladder : Yes.		
1.	Height of the stack from ground le	<u>. 120</u>		
2	Sampling Point			
3.	Diameter of the stack at sampling p	Chimney		
4.	No. of Traverse point	: 2.7 m		
5.	Height of the sampling point from	GL : 35 m		
C.	Analysis / Characteristic of stack	Gas / Flue Gas :		
1.	Fuel used :	2. Fuel consumption :		
D,	Environmental conditions :	2. 7 der consumption ; ***	3.Log	nd :
1.	Barometric pressure: 755 mmHg		120-22000 VIV. 100 CO	SEC. 1
E.	Results of Physical Parameters of	of Flue Gas :	2. Temperature :	36 °C
I No				
1.	Temperature of emission	Test Method	Unit	Results
2.	Mark Control of the C	IS 11255 : Part 3 : 2008	°C	55
	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	13.12
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	230013
F.	Results of gaseous emission:		7.4147 5110	230013
l No	Test Parameters	Test Method	11.0	
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	Unit	Results
2.	Carbon monoxide		mg/Nm³	689.5
	College and William College	IS 13270 (By Orsat): 1992	96 v/v	<0.2
3.	Carbon dioxide	IS 13270 (By Orsat); 1992	% v/v	0.2
4.	Oxygen	1S 13270 (By Orsat): 1992	% v/v	19.6
5.	Acid Mist	SOP No.: RVB/SQP/01/20.		
	Pollution control device	Issue No.: 04, Issue Date: 10.01.2018	mg/Nm ²	36,94

Report Verified by

Grayen_

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST DEDODT

Certificate No. AP-FG/25-26/		25	Page 1
Issued to	: M/S. M/S. PARADEEP PHOSPHATE L'	TD.	rager
Address	: Paradeep, Odisha.	5-T-10	
Your S.O. No.	: 5500007609, dtd. 16.08.2024		
Sample Description	iption : Stack Gas / Flue Gas		Equipment used:
Sample ID No.	: AP-FG/25-26/164	Stack Monitorin	
Name of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMF	C/07 (Cal. Validity: 30.04.2025)
	Paradeep, Odisha,		arameters Tested
Date & time of sampling	: 22.04.2025 (04:25 P.M. to 05:10 P.M.)	Physical & General	
Sampling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, C	ias flow, O2, CO2 & CO
Sampling Carried out by Analysis Started on	: Mr. Souvik Banerjee	Chemical:	
Analysis Started on Analysis Completed on	: 26.04.2025	SO ₂ & Acid Mist	
A. General information abo	: 28.04.2025		
Stack connected to			
Emission due to	: SAP - B		
Material of construction o	f stack : M.S.		
4. Shape of stack	: M.S.		
5. Whether stack is provided	with permanent platform & ladder : Yes,		
B. Physical characteristics	of stack :		
1. Height of the stack from g	round level : 120 m		
2. Sampling Point	: Chinney		
Diameter of the stack at sa	mpling point : 2.7 m		
 No. of Traverse point 	: 30 Nos		
Height of the sampling poi	nt from GL + 35 m		
C. Analysis / Characteristic	of stack Gas / Flue Gas :		
1. Fuel used :	2 Firel consumption :	21-	900
 Environmental condition 	5:	3.L02	d ;
 Barometric pressure: 755 	mmHg	0.000000000000000000000000000000000000	
E. Results of Physical Parar	meters of Flue Gas :	2. Temperature : 3	66 °C
SI No Test Parameters	Test Method	12.0	
I . Temperature of emission	15 11255 : Part 3 : 2008	Unit	Results
2. Velocity of gas in duct		°C	58
and or gar in duci	IS 11255:Part 3:2008	m/sec	12.95
3. Quantity of gas flow	IS 11255:Part 3:2008	NM³/hr	222787
F. Results of gaseous emiss	sion ;	1.3301.711	222101
I No Test Parameters	Test Method	Unit	D
1 , Sulphur dioxide	IS 11255 : Part 2 : 1985		Results
2. Carbon monoxide	그 그렇게 되는 그 아이지 않는 아이지 않는 것이 없는 것이다.	mg/Nm³	713.88
Carbon dioxide	IS 13270 (By Orsat): 1992	% v/v	< 0.2
	IS 13270 (By Orsat): 1992	96 v/v	0.2
4. Oxygen	IS 13270 (By Orsat): 1992.	96 v/v	19.4
5. Acid Mist	SOP No.: RVB/SOP/01/20, Issue No.: 04, Issue Date: 10.01.2018		
	Tenno Mary 1944 Comments of the second second	mg/Nm ³	41.99

Report Verified by

Reviewed & Authorised by (Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

	ificate No. AP-FG/25-26/16	5 Issue Date: April 28, 20	25		Page '
	ed to	: M/S. M/S. PARADEEP PHOSPHATE LTI	D.		raye
777	ress	: Paradeep, Odisha.			
	S.O. No.	: 5500007609, dtd. 16.08.2024			
	le Description	: Stack Gas / Flue Gas		Equip	ment used:
	le ID No.	: AP-FG/25-26/165	Stack Mor	nitoring Kit	
same	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			al. Validity: 30.04.2025
20 U 10 U		Paradeep, Odisha.		Parame	ters Tested
	& time of sampling	: 23.04,2025 (03:30 P.M. to 04:06 P.M.)	Physical &	General :	
	ling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)			v, O ₂ , CO ₂ & CO
	ling Carried out by	: Mr. Souvik Banerjee	Chemical:		
	sis Started on	: 26.04.2025	PM & TF		
	sis Completed on	: 28.04.2025			
A.	General information about	stack:			
1.	Stack connected to	: PAP # 2			
3.	Emission due to	2 Process Emmission			
4.	Material of construction of st Shape of stack	* 4740-00			
5.		: Circular.			
В.	Obvioled about 15 provided wi	th permanent platform & ladder : Yes.			
1.	Physical characteristics of	stack:			
2.	Height of the stack from grou Sampling Point				
3.	Diameter of the stand	: Chimney			
4.	Diameter of the stack at samp No. of Traverse point	1000 - 200 Units			
5.	Height of the second	: 12 Nos.			
C.	Height of the sampling point	from GL : 45 m			
1.	Analysis / Characteristic of Fuel used :				
D.	Environmental conditions :	2. Fuel consumption :		3.Load :	
1.	Burometria massage 255			articular ;	
E.	Barometric pressure : 755 mm	Hg	2 Temporo	ture: 36 °C	
l No	Results of Physical Paramet Test Parameters	ers of Flue Gas :	z. rempera	ime: 30 C	
_	- minimization	Test Method	Unit		6
1.	Temperature of emission	iS 11255 : Part 3 : 2008	°C -		Results
2.	Velocity of gas in duct	IS 11255:Part 3:2008	370		50
3.	Quantity of gas flow	IS 11255-Days 3-2009	m/sec		14.17
F.	Results of gaseous emission	1:	NM ³ /hr		35285
No	Test Parameters	Test Method			
		rest Method	Unit	Results	Norms
	Carbon monoxide	W Mare . P			as per CPCB
.	Carbon dioxide	15 11255 : Part 1 : 1985 By Orsat	% v/v	< 0.2	Not Specified
		IS 11255 : Part 1 : 1985 By Orsat	% v/v	0.2	
	Oxygen	IS 13270 (By Orsat): 1992	% v/v	19.8	Not Specified
	Particulate Matters	IS 11255 : Part 1 : 1985			Not Specified
	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm3 mg/Nm ³	37,30 4,59	150 max.
_	Pollution control device				

Report Verified by

@jayer

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

	ficate No. AP-FG/25-26	/166	Issue Date STriPa	-3026/T		Page 1 of	
Issued to		: M/S. M/S. PARADEEP PHOSPHATE LTD.					
Address		: Paradeep,	A to the first free and the second se				
	S.O. No.		o, dtd. 16.08.2024				
_	le Description	Stack Gas /			Fou	pment used:	
Sample ID No. AP-FG/25-26/			Description of the second seco	Stack Monitoring Kit			
Name of Industry / Site		M/S. M/S. PARADEEP PHOSPHATE LTD.		ID No.: RVB/SMK/07 (Cal. Validity: 30.04.2025)			
		Paradeep, Od		1491, 36, 26		meters Tested	
		: 24.04.2025 (12:40 P.M. to 01:10 P.M.)		Physical & General :			
	ling Plan & Method		5 & IS: 11255 (Part-1,2 & 3)	Temp, Veloci		CO 4 CO	
	ling Carried out by	Mr. Souvik		Chemical:	y, Gas 110W, C	2,002400	
	sis Started on	: 26.04.2025	Bancijec				
	rsis Completed on	: 28.04.2025		SO ₃ , NO ₃ ,HO	a PM		
A.	General information ab	out stack					
1	Stack connected to	OUL STOCK	: Diesel Generator	0			
2.	Emission due to		Burning of H.S.D				
3	Material of construction	of stark	M.S.	9.			
4	Shape of stack	Us attack	: Circular.				
5.		d with permaner	nt platform & ladder : Yes				
6.	Generator capacity	- series permanen	: 1 MVA				
B.	Physical characteristic	s of stack :	.1844				
1.	Height of the stack from	ground level	: 30.0 m				
2	Sampling Point	Brown to the	Chimney				
3.	Diameter of the stack at a	sampline point	: 0.46 m				
4.	No. of Traverse point	respond from	: 08 Nos				
C.	Analysis / Characteristi	c of stack Gas	/ Flue Gas :				
1.	Fuel used : H.S.D 2. Fuel consumption :						
D.							
1.	Barometric pressure: 755	5 mmHg		2. Temperatur	24.50		
E.	Finding of Physical Par		e Gas :	2. remperatur	e:35 C		
SI No			Test Method	Unit		D. I	
1.	Temperature of emission	1	IS 11255 : Part 3 : 2008	"C		Results	
2.	Velocity of gas in duct		IS 11255 : Part 3 : 2008	m/sec		430	
3.	Quantity of gas flow		15 11255 : Part 3 : 2008	7775 3000 0	11.33(20)(20)		
				N/N A C Acce		49.62	
F.	Results of gaseous emi	ssion:	12 11455 - Part 5 - 2008	NM³/hr		49.62 12216	
F.	Results of gaseous emi	ission :			D	12216	
l No	Test Parameters	ission :	Test Method	NM²/hr Unit	Results	12216 Nurms as per Environment	
l No	Test Parameters Oxygen	ission :				Norms as per Environment (Protection) Amendment Rules 200; for > 800 km	
1 No	Test Parameters Oxygen Sulphur dioxide	ission :	Test Method 1S 13270 (By Orsat): 1992 IS 11255: Part 2: 1985	Unit % v/v	10.8	Norms as per Environment (Protection) Amendment Rules 200; for > 800 km Not Specified	
l No	Test Parameters Oxygen	ission :	Test Method 1S 13270 (By Orsat): 1992	Unit % v/v mg/Nm³	10.8 94.79	Norms as per Environment (Protection) Amendment Rules 200; for > 800 km	
1 2 3	Oxygen Sulphur dioxide Nitrogen dioxide		Test Method 1S 13270 (By Orsat): 1992 IS 11255: Part 2: 1985	Unit % v/v	10.8 94.79 183.49	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified	
l No	Test Parameters Oxygen Sulphur dioxide		Test Method 1S 13270 (By Orsat): 1992 IS 11255: Part 2: 1985	Unit % v/v mg/Nm³ mg/Nm³ gm/kw-hr	10.8 94.79 183.49 2.80	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified	
1 2 3	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005	Unit % v/v mg/Nm³ mg/Nm³ gm/kw-hr gm/kw-hr	10.8 94.79 183.49 2.80 0.07	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified	
1 2 3	Oxygen Sulphur dioxide Nitrogen dioxide		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005	Unit % v/v mg/Nm³ mg/Nm³ gm/kw-hr gm/kw-hr mg/Nm³	10.8 94.79 183.49 2.80 0.07 4.64	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified	
1 2 3	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005 EPA Method 18	Unit % v/v mg/Nm³ mg/Nm³ gm/kw-hr gm/kw-hr mg/Nm³ mg/Nm³	10.8 94.79 183.49 2.80 0.07 4.64 140	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified 4.0	
1 2 3 4	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005 EPA Method 18 USEPA 10:2017	"% v/v mg/Nm² mg/Nm² gm/kw-hr gm/kw-hr mg/Nm² mg/Nm²	10.8 94.79 183.49 2.80 0.07 4.64 140 2.14	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified	
1 2 3	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005 EPA Method 18 USEPA 10:2017 IS 13270 (By Orsat): 1992	"% v/v mg/Nm² mg/Nm² gm/kw-hr gm/kw-hr mg/Nm² mg/Nm² gm/kw-hr	10.8 94.79 183.49 2.80 0.07 4.64 140 2.14 <0.2	Norms as per Environment (Protection) Amendment Rules 200: for > 800 km Not Specified Not Specified 4.0 3.5	
1 2 3 4	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC Carbon monoxide Carbon dioxide		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005 EPA Method 18 USEPA 10:2017 IS 13270 (By Orsat): 1992 IS 13270 (By Orsat): 1992	"% v/v mg/Nm² mg/Nm² gm/kw-hr gm/kw-hr mg/Nm² mg/Nm² gm/kw-hr % v/v	10.8 94.79 183.49 2.80 0.07 4.64 140 2.14 <0.2 7.8	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified 4.0	
1 2 3 4 5	Oxygen Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC Carbon monoxide		Test Method IS 13270 (By Orsat): 1992 IS 11255: Part 2: 1985 IS 11255: Part 7: 2005 EPA Method 18 USEPA 10:2017 IS 13270 (By Orsat): 1992	"% v/v mg/Nm² mg/Nm² gm/kw-hr gm/kw-hr mg/Nm² mg/Nm² gm/kw-hr	10.8 94.79 183.49 2.80 0.07 4.64 140 2.14 <0.2	Norms as per Environment (Protection) Amendment Rules 2003 for > 800 km Not Specified Not Specified 4.0 3.5	

Report Verified by

Reviewed & Authorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-12347

Page 1 of 1

TEST REPORT Issue Date: June 03, 2025

Certificate No. AP-AAQ/25-26/0127 : M/S. PARADEEP PHOSPHATE LTD.

Issued to : Paradeep, Odisha Address

5500007609, dtd. 16.08.2024

Your Ref. No.

Ambient Air Sample Description. : AP-AAQ/25-26/0127

Sample ID No. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha Name of Industry / Site

: Near AAQMS # 01

Sampling Location 23.05.2025 (10:30 A.M.)-24.05.2025 (10:30 A.M.)

Date & Time of sampling Duration of Sampling

RVB/FM/45 Sampling Plan:

Sampling Carried out by : Mr. Partha Pratim Mandal

: As per CPCB guidelines (Volume-I) Method of Sampling

27.05.2025 Analysis Started on 03.06.2025 Analysis Completed on

Equipment used:

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/20, Call. Valid upto: 20.01.28

Resperible Dust Sampler

D No.: RV6/RDS/APM460/BL/15, Call, Velid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature : Max: 36.5°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM_{2.5}, PM₁₀, SO₂, NO₂, O₃, NH₃,

CO, Pb, Ni, As, CoHe, BaP

TEST SINDINGS.

SL No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
4	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	59.0	60 (24 Hourly.)
111	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	66.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO	iS 5182 (Part - 2): 2001	µg/m³	6.30	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₃	IS 5182 (Part - 6): 2006	hā/w _p	15.00	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m ³	14.00	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: PV5/SOP/G1/10 (Indeptend Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	13.70	400 (24 Hourly.)
7.	Carbon Monoxide as CO	S 5182 (Part. 10), 1999 Non Disposive Intra-Red [NOISI) specimosopy	mg/m ³	0.680	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.006	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RYS/SOP/01/15 (AAS Minhod) lanua No. 04, lanua Data: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01 2018	ng/m³	<0.25	6.0
	Benzene as C ₅ H ₅	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
-	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ²	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

KOR (Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD,

END OF TEST REPORT :-

* Results relate only to the parameters of the item tested.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-26/0128

Issue Date : June 03, 2025

Page 1 of 1

Issued to

: M/S. PARADEEP PHOSPHATE LTD.

Address

; Paradeep, Odisha

Your Ref. No.

5500007609, dtd. 16.08.2024

Sample Description

Ambient Air

Sample ID No.

: AP-AAQ/25-26/0128

Name of Industry / Site

M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location

: Near AAGMS # 02

: 22.05.2025 (10:15 A.M.)-23.05.2025 (10:15 A.M.) Date & Time of sampling

Duration of Sampling

: 24Hrs.

Sampling Plan:

RVB/FM/45

Method of Sampling

Sampling Carried out by : Mr. Partha Pratim Mandal : As per CPCB guidelines (Volume-I)

Analysis Started on Analysis Completed on 03.06:2025

Equipment used:

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2 5/20, Call. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/BL/15, Cal. Valid uplo: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27.0°C

Barometric Presure: 755 mmHg

Parameters Tested: PM26, PM10, SO2, NO2, O3, NH3

CO. Pb. Ni, As. CaHa, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	48.8	60 (24 Hourly.)
	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	56.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.70	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	19.60	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	15.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No.: RVS/SCP/01/10 (indepheno/Method) lame No. 04, lauer Date: 10.01.2018	µg/m³	12.80	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IB : 5182 (Plat + 10), 1999 Non Dispersive Into-Rod (NDR) spectroscopy	mg/m ³	0.720	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.070	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RV6/SOP/01/15 (AAS Memod) toxice No. 04, Issue Cate: 10.01.2018	ng/m ³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) leave No. 04. leave Dete: 10.01.2018	ng/m ³	<0.25	6.0
11	Benzene as C _e H ₆	18 5182 (Part - 11): 2006.	µg/m³	1.25	5.0
-	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic. 0.25 ng/m³, Benzene. 1 μg/m³ & Benzo(a)Pytene. 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.. END OF TEST REPORT :-

* Results relate only to the parameters of the item tested.

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R. V. BRIGGS & CO. PRIVATE LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Page 1 of 1

TEST REPORT

Certificate No. AP-AAQ/25-26/0129 : M/S. PARADEEP PHOSPHATE LTD.

: Paradeep, Odisha Address

5500007609, dtd. 16.08.2024 Your Ref. No.

Ambient Air Sample Description

: AP-AAQ/25-26/0129

Sample ID No. M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site

Paradeep, Odisha

: Near AAGMS # 03 Sampling Location

20.05.2025 (09:40 A.M.)-21.05.2025 (09:40 A.M.) Date & Time of sampling

: 24Hrs. Duration of Sampling RVB/FM/45 Sampling Plan :

Sampling Carried out by : Mr. Partha Pratim Mandal

: As per CPCB guidelines (Volume-I) Method of Sampling

Analysis Started on : 03.06.2025 Analysis Completed on

Equipment used:

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/20, Call. Valid upto: 20.01.28

Recognible Dust Sampler

Issue Date: June 03, 2025

ID No.: RVB/RDS/APM460/BL/15, Cal. Valid upto: 92.11.25

Environmental conditions

Weather Condition: Clear

Temperature : Max: 36.0°C & Min: 27.0°C

Barometric Presure: 758 mmHg

Parameters Tested: PM215 PM10, SO2 NO2, O3, NH3,

CO. Pb. Ni, As, CaHa, BaP

TEST PHONICS

SI. No.	T FINDINGS:- Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	55	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	57.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.20	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	20.30	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m ³	14.80	180 (1 Hourly.)
	Ammonia as NH ₃	SCP No.: RVB/SCP(01/10 (Indephanol Melhod) lauve- No. 04, lauve Dalai, 10:01:2018	µg/m²	13.50	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS - 5182 (Part - 10), 1999 Non Dispersive into Red (NDR) spectroscopy	mg/m³	0.750	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.820	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) leave No. 04. Issue Date: 10:01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOF No.: RVB/SOF/01/15 (AAS Method) Issue No. 04, issue Dalin 10 01:2018	ng/m ³	0.3	6.0
11	Benzene as C ₀ H ₆	(S 5182 (Part - 11): 2006,	µg/m³	1.02	5.0
-	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

Results relate only to the parameters of the item tested.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25-26/0130 Issue Date : June 03, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address Paradeep, Odisha

Your Ref. No. 5500007609, dtd. 16.08 2024

Sample Description Ambient Air
Sample ID No. AP-AAQ/25-25/0130 Ambient

Sample ID No. : AP-AAQ/25-26/0130

Name of Industry / Site : M/S, PARADEEP PHDSPHATE LTD.

Name of Industry / Site : M/S. PARADEEP PHOSPHATE Paradeep, Odisha

Sampling Location : Near AAQMS # 04

Date & Time of sampling : 21.05.2025 (10:00 A.M.)-22.05.2025 (10:00 A.M.)

Duration of Sampling : 24Hrs. Sampling Plan : RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 27.05.2025 Analysis Completed on : 03.06.2025 Equipment used:

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/20, Call. Valid upto: 20.01.26

Resperble Dust Sampler

ID No.: RVB/RDS/APM460/BL/15, Cal. Velid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 36.0°C & Min: 27.0°C

remperature : Max: 30.0 C a: Mill. 27.0

Barometric Presure: 756 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, CoHo, BaP

TEST FINDINGS:-

SI. No.	T FINDINGS;- Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.6} (Size ≤ 2.5μm)	USEPA 1997a 40 CFR Part 50, Appendix L.	µg/m³	47,0	80 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	6.3	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.40	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	(S 5182 (Part - 6): 2006	µg/m³	21,00	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	12.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RIVE/SOP(01/10 (Indephenol Method) Issue No. 04, Issue Date: 10.01-2018	h8 _l m _g	15.00	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IB : 5162 (Part - 10), 1999 Non Dispersive into-Red (NDR) specioscopy	mg/m³	0.800	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.950	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No: RVB/SOP/01/15 (AAS Method) Issue No. 04; Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVBSCFi01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.3018	ng/m²	<0.25	6.0
11	Benzene as C ₆ H ₆	IS 5162 (Part - 11): 2006,	µg/m³	<1.0	5.0
45	Benzo (a) Pyrene	is 5182 (Part - 12): 2004.	ng/m ⁿ	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 ug/m² & Benzo(a)Pyrene: 0.5 ng/m²

Report Verified by

Apyen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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TC-12347

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

	ficate No. AP-FG/24-25/		125	Page 1 of
Issued to		: M/S. M/S. PARADEEP PHOSPHATE	LTD.	
Address		: Paradeep, Odisha.		
	S.O. No.	: 5500007609, dul. 16.08.2024		
	e Description	: Stack: Gas / Flue Gus	Eq	uipment used:
	e ID No.	: AP-FG/24-25/0299	Stack Monitoris	
Name	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha.	II) No.: RVB/SN	K/07 (Cal. Validay: 30.04.2 umeters Tested
Date &	time of sampling	: 22.05.2025 (11:30 A.M. to 12:09 P.M.)	Physical & Gene	
	ing Plan & Method	: RVB/FM/45 & 1S: 11255 (Part-1,2 & 3)		
	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:	Gas flow, O2, CO2 & CO
	sis Started on	: 27.05.2025	SO ₂ & Acid Mis	
	sis Completed on	27.05.2025	SUS OF ACID MIS	
A	General information abo	ut stack		
1.	Stack connected to	SAP - A		
2	Emission due to	: Process Emmision		
3	Material of construction of	f stack : M.S.		
4.	Shape of stack	: Circular.		
5.		with permanent platform & ladder; Yes.		
B.	Physical characteristics	of etack :		
1	Height of the stack from g	round level : 120 m		
3.	Diameter of the stack at sa	molino solist 2.7		
4.	No. of Traverse point			
5.	Height of the sampling po	: 30 Nos.		
C.	Analysis / Characteristic	of stack Gas / Flue Gas :		
1.	Fuel used			
D.	Environmental condition	2. Fuel consumption :	3.1.	oad :
1.				
	Harometric pressure: 756	mining	2. Temperature	32°C
Ĕ.	Results of Physical Para	meters of Flue Gas :		
SI No	The state of the second second	Test Method	Unit	Results
1 -	Temperature of emission	IS 11255 : Part 3 : 2008	*C	63
2.	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec	
3.	Quantity of gas flow		2000000	14.15
F.	Results of gaseous emis	IS 11255 Part 3-2008	NM ² /hr	253596
SI No				
1	Sulphur dioxide	Test Method IS 11255 : Part 2 : 1985	Unit	Results
2	Carbon monoxide		mg/Nm ³	679.20
3.		IS 13270 (By Orsat): 1992	76 v/v	< 0.2
	Carbon dioxide	15 13270 (By Orsat): 1992	26 x/x	0.2
4.	Oxygen	IS 13270 (By Cirsut): 1992	96 v/v	19.6
5.	Acid Mist	SGP No.: RVIJ/SGP/91/20, Issue No.: 04, Junie Date: 10.01.3018	mg/Nm [†]	41.59
	Pollution control device			

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



Certificate No. AP-FG/24-25/	TEST REP	W111	
ssued to	: M/S. M/S. PARADEEP PHOSPHATE	025	Page 1
Address	Paradeep, Odisha.	LID.	
Your S.O. No.	: 5500007609, dtd. 16.08.2024		
sample Description	: Stack Gas / Flue Gas		
ample ID No.	: AP-FG/24-25/0300	Small Marries	julpment used:
lame of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	Stack Monitor	30g 5.0 MK/07 (Cal. Validity: 30.0
and Mr. Committee and Committee	Panideep, Odisha.	Pa	rameters Tested
ate & time of sampling	: 22.05.2025 (12:20 P.M. to 01:02 P.M.)	Physical & Gen	eral
ampling Plan & Method ampling Carried our by	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		Gas flow, O ₅ , CO ₂ & CO
nalysis Started on	; Mr. Partha Pratim Mandal	Chemical:	
nulysis Completed on	27.05.2025	501 & Acid Mi	st
A. General information abou	: 27.05.2025		
Stack connected to			
2. Emission due to	: SAP » B : Process Emmision		
3. Material of construction of	ratack : M.S.		
 Shape of stack 	: Circular.		
5. Whether stack is provided	with permanent platform & ladder - V		
characteristics (of stack :		
 Height of the stack from gr 	postarial Taxanda and a same		
Property of the Property of th	ound level : 120 m		
Diameter of the stack at sar			
 Diameter of the stack at sar No. of Traverse point 	mpling point : 2.7 m		
 Diameter of the stack at sar No. of Traverse point Height of the sampling point 	mpling point : 2.7 m : 30 Nos.		
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point C. Analysis / Characteristic of the sampling point C. Analysis / Characteristic of the sampling point C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the stack at sar C. Analysis / Characteristic of the sampling point C. Analysis / Characterist of the sampling point C. Analysis / Characterist of the sampling	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas :		
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point C. Analysis / Characteristic of Fuel used 1. Fuel used	mpling point : 2.7 m : 30 Nos. or from GL : 35 m of stack Gas / Flue Gas :	3.1.	oud :
3. Dinmeter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : D. Environmental conditions	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption :	3.1.	oud :
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : D. Environmental conditions 1. Barometric pressure : 756 r	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption :	-	
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used 7. Environmental conditions 8. Barometric pressure: 756 r 6. Results of Physical Param	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption :	3.1. 2. Temperature	
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of 6. Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption : : mmHg neters of Flue Gas : Test Method	-	: 32 °C
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 6. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 8. Temperature of emission	mpling point : 2.7 m : 30 Nos. mt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption :	2. Temperature Unit	: 32 °C Results
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 8. Temperature of emission	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption : : mmHg neters of Flue Gas : Test Method	2. Temperature Unit	: 32 °C Results 68
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 6. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 9. Temperature of emission 1. Velocity of gas in duct	mpling point : 2.7 m : 30 Nos. nt from GL : 35 m of stack Gas / Flue Gas : 2. Fuel consumption : i: mmHg neters of Flue Gas : Test Method IS 11255 Part 3: 2008 IS 11255 Part 3: 2008	2. Temperature Unit "C m/sec	: 32 °C Results 68 12.81
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of 6. Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 7. Temperature of emission 8. Velocity of gas in duct 9. Quantity of gas flow	### 12.55 Part 3:2008	2. Temperature Unit	: 32 °C Results 68
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : D. Environmental conditions 1. Barometric pressure : 756 r E. Results of Physical Param No Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission	### 1255 Part 3:2008	2. Temperature Unit "C m/sec NM*/hr	: 32 °C Results 68 12.81
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 6. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 8. Temperature of emission 9. Velocity of gas in duct 9. Quantity of gas flow 9. Results of gaseous emiss 9. Results of gaseous emiss 9. Test Parameters	### 1255 Part 3:2008 Test Method 15 11255 Part 3:2008 15 1125	2. Temperature Unit "C m/sec NM*/hr Unit	: 32 °C Results 68 12.81
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of 6. Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 7. Test Parameters 7. Temperature of emission 7. Velocity of gas in duct 7. Quantity of gas flow 7. Results of gaseous emission 8. Results of gaseous emission 9. Test Parameters 9. Sulphur dioxide	### 1255 Part 2: 1985	2. Temperature Unit "C m/sec NM*/hr	Results 68 12.81 226586
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 6. Environmental conditions 6. Barometric pressure : 756 r 6. Results of Physical Param 7. Results of Physical Param 8. Temperature of emission 9. Velocity of gas in duet 9. Quantity of gas flow 9. Results of gaseous emiss 9. Results of gaseous emiss 9. Suiphur dioxide 9. Curbon monoxide	### 130 Nos. Int from GL 135 m of stack Gas / Flue Gas : 2. Fuel consumption : 2. Fuel consumption : ################################	2. Temperature Unit "C m/sec NM*/hr Unit	Results 68 12.81 226586 Results
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 7. Test Parameters 7. Temperature of emission 7. Velocity of gas in duct 7. Quantity of gas flow 7. Results of gaseous emission 8. Results of gaseous emission 9. Test Parameters 9. Sulphur dioxide 9. Carbon monoxide 9. Carbon dioxide 9. Carbon dioxide	### 1255 Part 2: 1985	2. Temperature Unit "C m/xec NM*/hr Unit mg/Nm³	Results 68 12.81 226586 Results 638.83 <0.2
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of Fuel used : 6. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 8. Test Parameters 9. Temperature of emission 9. Velocity of gas in duct 9. Quantity of gas flow 9. Results of gaseous emiss 9. Results of gaseous emiss 9. Sulphur dioxide 9. Curbon monoxide	### 130 Nos. Int from GL	2. Temperature Unit "C m/sec NM*/hr Unit mg/Nm³ % v/v % v/v	Results 68 12.81 226586 Results 638.83 <0.2 0.2
3. Diameter of the stack at sar 4. No. of Traverse point 5. Height of the sampling point 6. Analysis / Characteristic of 6. Fuel used : 7. Environmental conditions 7. Barometric pressure : 756 r 7. Results of Physical Param 7. Test Parameters 7. Temperature of emission 7. Velocity of gas in duct 7. Quantity of gas flow 7. Results of gaseous emission 8. Results of gaseous emission 9. Test Parameters 9. Sulphur dioxide 9. Carbon monoxide 9. Carbon dioxide 9. Carbon dioxide	### 130 Nos. Int from GL	2. Temperature Unit "C m/sec NM ³ /hr Unit mg/Nm ³ % v/v	Results 68 12.81 226586 Results 638.83 <0.2

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT Certificate No. AP-FG/24-25/0301 Issue Date: May 27, 2025 Page 1 of 1 Issued to : M/S. M/S. PARADEEP PHOSPHATE LTD. Address : Paradeep, Odisha. Your S.O. No. : 5500007609, dtd. 16.08.2024 Sample Description : Stack Gas / Flue Gas Equipment used: Sample ID No. : AP-FG/24-25/0301 Stack Monitoring Kit Name of Industry / Site : M/S. M/S. PARADEEP PHOSPHATE LTD. ID No.: RVB/SMK/07 (Cal. Validity: 30,04.202) Paradeep, Odisha. Parameters Tested Date & time of sampling : 22.05.2025 (04:05 P.M. to 04:41 P.M.) Physical & General Sampling Plan & Method : RVB/FM/45 & IS: 11255 (Part-1.2 & 3) Temps, Velocity, Gas flow, O₂, CO₂ & CO Sampling Carried out by : Mr. Partha Pratim Mandal Chemical: Analysis Started on : 27.05.2025 SO2 & Acid Mist Analysis Completed on : 27.05.2025 General information about stack : Boiler connected to SAP-C 2. Emission due to : Process Emission Material of construction of stack 3. : M.S. 4. Shape of stack : Circular. Whether stack is provided with permanent platform & ladder: Yes. B. Physical characteristics of stack: 1. Height of the stack from ground level : 120 m. 3. Diameter of the stack at sampling point : 2.7 m 4. No. of Traverse point : 30 Nos. Height of the sampling point from GL : 35 m C. Analysis / Characteristic of stack Gas / Flue Gas : Fuel used :--2. Fuel consumption : --3.Load: --D. Environmental conditions: L Barometric pressure: 756 mmHe 2. Temperature: 32 °C E. Results of Physical Parameters of Flue Gas: Test Parameters SI No Test Method Unit Results 1. Temperature of emission IS 11255 : Part 3 : 2008 °C 71 2. Velocity of gas in duct IS 11255 Part 3 2008 m/sec 6.69 3: Quantity of gas flow IS 11255:Part 3:2008 NM /hr 115654 Results of gaseous emission: F. SINo Test Parameters Test Method Unit Results

Report Verified by

Pollution control device

Sulphur dioxide

Carbon dioxide

Oxygen

Acid Mist

Carbon monoxide

1.

2:

3.

4.

3.

Reviewed & Authorised by

558.59

<0.2

0.2

19.8

41.26

(Dr. R. KARIM) Technical Manager

mg/Nm

% v/v

% V/V

% V/V

mij/Nm3

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

- END OF TEST REPORT -

IS 11255 : Part 2 : 1985

IS 13270 (By Oran): 1992

IS 13270 (By Orsat): 1992

(S 13270 (By Oreat): 1992

SOP No.: RVB/SOP/01/20.

Issue No. 04, Issue Date: 10:01:2018

Details of pollution control devices attached with the stack: Alkaline scrubber

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CIN: U51109WB1931PTC007007



TC-12347

Certif	icate No. AP-FG/24-25/0	1302	Issue Date: May 27, 20		Process of the
ssue			PARADEEP PHOSPHATE L	TD	Page 1
Addre	ess	: Paradeep,		1164	
Your S	i.O. No.	: 5500007609	, dtd. 16.08.2024		
Sample	e Description	: Stack Gas/		Eau	ipment used:
	e ID No.	: AP-FG/24-2	5/0302	Stack Monitorin	
Name	of Industry / Site	: M/S. M/S. PA	RADEEP PHOSPHATE LTD.	ID No.: RVB/SMI	E/07 (Cal. Validity: 30.04
		Paradeep, Odi			imeters Tested
	time of sampling	: 24.05.2025	(11:30 A.M. to 12:06 P.M.)	Physical & Gener	wt:
	ng Plan & Method	: RVB/FM/45	& 18: 11255 (Part-1,2 & 3)	Temp., Velocity, C	ins flow, O ₂ , CO ₂ & CO
	ng Carried out by		Pratiro Mandal	Chemical:	
	is Started on	: 27.05,2025		PM	
	is Completed on	: 27.05.2025			
	General information abo	ut stack:	00200000		
1.	Stack connected to Emission, due to		: Zypmite - I		
3.	Material of construction of	WOMONDS IN	: Process Emmision		
4.	Shape of stack	I STRCK	: M.S.		
5.	Whether stack is provided	and the second second	: Circular.		
В.	Physical characteristics	of stack :	piatiorm & indder : Yes.		
1.	Height of the stack from g		: 30 m		
3.	Diameter of the stack at sa		: 1.03 m		
4.	No. of Traverse point	111001111000 0111111111	: 12 Nos.		
C.	Analysis / Characteristic	of stack Gas /	Flue Gas :		
1.	Fuel used :		2. Fuel consumption :	3.16	ad:
D.	Environmental condition	5.1			3142.2
1.	Barometric pressure: 756	mmHg		2. Temperature :	10.90
E.	Results of Physical Para	meters of Flue	Gas:	- sumparature	34.0
SI No			Test Method	Unit	Results
1.	Temperature of emission	1	S 11255 : Part 3 : 2008	°C	46
2	Velocity of gas in duct	1 9	S 11255 : Part 3 : 2008	m/sec	14.53
3.	Quantity of gas flow			10000000	
	Results of gaseous emis		S 11255 : Part 3 : 2008	NM ³ /hr	39963
F.		sion:			
SINO	Test Parameters		Test Method	Unit	Results
1	Carbon monoxide	IS	13270 (By Orsat): 1992	% v/v	<0.2
2,	Carbon dioxide	IS	13270 (By Orsat): 1992	% v/v	0.2
3.	Oxygen		13270 (By Orsai): 1992	16 v/v	19.8
	100 miles		5 11255 : Part 1 : 1985	29 VIV.	13/9

Reviewed & Authorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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Results relate only to the parameters of the item tested.



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TC-12347

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Sample III. Name of I. Name of I. Sampling Sa	. No. escription		TD. Stack Munitoria ID No.: RVB/SMI Particular & Gener	COT (Cal. Validity: 30 04 2026 rameters Tested
Your S.O. Sample D. Sample JD. Sample JD. Sample JC. Sample JC. Sampling Sa	No. escription O No. industry / Site ne of sampling Plan & Method Carried out by Started on Completed on ineral information about iok connected to	Paradeep, Odisha. 5500007609, dtd. 16.08.2024 Stack: Gas / Flue Gas AP-FG/24-25/0303 M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha. 24.05.2025 (12:15 P.M. to 12:51 P.M.) RVB/FM/45 & IS: 11255 (Part-1,2 & 3) Mr. Partha Pratim Mandal. 27.05.2025 27.05.2025 stack:	Stack Monitoria ID No.: RVB/SMI PayMed & Gener Temp., Velocity, C Chemical:	g Kit G07 (Cnt. Validay: 30 04:2026 rameters Tested at::
Sample Do Sample ID Name of L Date & tin Sampling Sampling S Analysis S Analysis C A Ge 1. Sta 2. Em	escription) No. Industry / Site ne of sampling Plan & Method Carried out by Started on Completed on ineral information about tok connected to	: Stack: Gas / Flue Gas : AP-FG/24-25/0303 : M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha : 24.05.2025 (12:15 P.M. to 12:51 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack:	Stack Monitoria ID No.: RVB/SMI Plysical & Gener Temp., Velocity, C Chemical:	g Kit KJO7 (Cal. Validity: 30 04 202) rameters Tested at:
Sample III. Name of I. Name of I. Sampling Sa	D No. Industry / Site Industry / Site Ine of sampling Plan & Method Carried out by Starried on Completed on Ineral Information about tok connected to	: AP-FG/24-25/0303 : M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha : 24.05.2025 (12:15 P.M. to 12:51 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack :	Stack Monitoria ID No.: RVB/SMI Plysical & Gener Temp., Velocity, C Chemical:	g Kit KJO7 (Cal. Validay: 30 04 202) rameters Tested at:
Date & tin Sampling Sampling Sampling Analysis S Analysis C A Ge 1. Sta 2. Em	ndustry / Site ne of sampling Plan & Method Carried out by Starried on Completed on neral information about tok connected to	: M/S. M/S. PARADEEP PHOSPHATE LTD. Parudeep, Odisha : 24,05,2025 (12:15 P.M. to 12:51 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27,05,2025 : 27,05,2025 ut stack:	Stack Monitoria ID No.: RVB/SMI Plysical & Gener Temp., Velocity, C Chemical:	g Kit KJO7 (Cal. Validity: 30 04 202) rameters Tested at:
Date & tin Sampling Sampling of Analysis S Analysis C A. Ge 1. Sta 2. Em	ne of sampling Plan & Method Carried out by Starred on Completed on Ineral information about	Paradeep, Odisha : 24.05.2025 (12:15 P.M. to 12:51 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack:	ID No.: RVB/SMS Pa Physical & Gener Temp, Velocity, C Chemical:	GIO7 (Cal. Validity: 30 04 202) rameters Tested al :
Sampling Sampling Analysis S Analysis C A. Ge 1. Sta 2. Em	Plan & Method Carried out by Started on Completed on Internal information about tok connected to	: 24.05.2025 (12:15 P.M. to 12:51 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack:	Physical & Gener Temp., Velocity, C Chemical:	nt :
Sampling (Analysis S Analysis C A. Ge I. Sta 2. Em	Carried out by Started on Completed on oneral information about tok connected to	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3) : Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack:	Temp., Velocity. C Chemical:	Gas flow, O ₂ , CO ₂ & CO
Analysis S Analysis C A. Ge 1. Sta 2. Em	Started on Completed on ineral information about tels connected to	: Mr. Partha Pratim Mandal : 27.05.2025 : 27.05.2025 ut stack:	Chemical:	an now, O ₂ , CO ₂ & CO
A. Ge 1. Sta 2. Em	Completed on oneral information about tok connected to	: 27.05.2025 : 27.05.2025 ut stack :	THE STATE OF THE STATE OF	
A. Ge 1. Sta 2. Em	neral Information about tok connected to	ut stack :	A AVE	
 Sta Em 	tok connected to			
 Sta Em 	tok connected to			
	tission due to	: Zypmite - 2		
77		: Process Emmission		
	sterial of construction of	stack : M.S.		
	ape of stack	: Circulay,		
5. WI	nether stack is provided	with permanent platform & ladder: Yes.		
B. Ph	ysical characteristics of	of stack :		
L He	ight of the stack from gr	round level : 30 m		
3. Dia	ameter of the stack at sai	mpling point : 0.85 m		
4. No.	of Travense point	: 12 Nos.		
		of stack Gas / Flue Gas :		
	el used :	2. Fuel consumption :	31.0	nd:-
	vironmental conditions	1.		110
L. Bur	rometric pressure: 756 r	nml Ig	2. Temperature :	10.50
	sults of Physical Param	neters of Flue Gas :	and the state of t	32 0
	est Parameters	Test Method	Unit	Results
I Te	inperature of emission	15 11255 : Part 3 : 2008	"C	49
2. Ve	locity of gas in duct	15 11235 : Part 3 : 2008	m/see	
	antity of gas flow	IS 11255 Part 3 : 2008	17.57.75.75	14,99
	sults of gaseous emiss		NM*/hr	27523
	est Parameters	Test Method	I was a	
2000		rest Method	Unit	Results
L. Car	rbon monoxide	IS 13270 (By Orsal): 1992	96 v/v	< 0.2
Z. Car	rbon dioxide	IS 13270 (By Orsat): 1992	26 v/v	
3. Ox	ygen	IS 13270 (By Orsar): 1992	500000	0.4
4. Par	ticulate Matters	15.11253 ; Part 1 ; 1983	96 v/v	19,4
	ution control device	77.712.22.1301.1.1202	mg/Nm3	31

Report Verified by

Reviewed & Authorised by

Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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TEST REPORT

ertific	ate No. AP-FG/24-25/03	04	Issue Date: May 27, 202	25	Page 1 of 1
sued t		: M/S. M/S. PA	RADEEP PHOSPHATE L	TD.	
ddres	5	: Paradeep, Od			
our S.C		: 5500007609, da		Fauln	ment used:
	Description	: Stack Gas / Fl		Stack Monitoring	Street & Contract of the Contr
ample l		: AP-FG/24-25/	ADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/	37 (Ca). Vishdity: 30.04.20
lame of	Industry / Site	Paradeep, Odish			eters Tested
Value III of	Torre of committees	· 24.05.2025 (0)	2:00 P.M. to (2:32 P.M.)	Physical & General	
hate et i	lime of sampling g Plan & Method	: RVB/FM/45 &	IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Ga	s flow, O ₅ , CO ₂ & CO
	g Carried out by	: Mr. Partha Pra		Chemical:	
	Started on	: 27.05.2025		PM.	
	Completed on	: 27.05.2025			
A. (General information abou	t stack:			
	Stack connected to		: Zypmite - 3		
	Emission due to		: Process Emmision		
	Material of construction of	stack	; M.S.		
4.	Shape of stack	8	: Circular,		
5.	Whether stack is provided	with permanent	piatform & ladger ; ves.		
В.	Physical characteristics	of stack :	: 30 m		
1.	Height of the stack from g	round level	: 0.5 m		
	Diameter of the stack at sa No. of Traverse point	tubung boun	: 8 Nus.		
4. C.	Analysis / Characteristic	of stack Gas / F			
	Fuel used :-	or attion out	2. Fuel consumption :	- 3.Lo	id :
	Environmental condition	s:			
	Barometric pressure: 756			2. Temperature :	30 °C
E.	Results of Physical Para	meters of Flue C	Sas :		
SI No	Test Parameters		Test Method	Unit	Results
1.	Temperature of emission		11255 : Part 3 : 2008	°C	32
11000	miles . And the second state of the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11255 : Part 3 : 2008	m/sec	3.78
2.	Velocity of gas in duct	41.55	11255 : Part 3 : 2008	NM ³ /hr	2585
3.	Quantity of gas flow		5 11/225 : FMR 3 : 41/08	PO91./INF	1000
F.	Results of gaseous emir			Date	Results
Si No	Test Parameters		Test Method	Unit	resum
L	Carbon monoxide	15	13270 (By Orsat): 1992	96 V/V	<0.2
2.	Carbon dioxide	1S	13270 (By Gran): 1992	% v/v	0.2
3.	Oxygen		13270 (By Orant): 1992	95 v/v	20.0
	Particulate Matters		S 11255 : Part 1 : 1985	mg/Nm3	33
4	1 Particulate Watters	,			

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

COLU	ficate No. AP-FG/24-25/0	0305 Issue Date: May 27, 202	245		-
ssue		: M/S. M/S. PARADEEP PHOSPHATE L	TD:	_	Page 1 of
Addr	ess	: Paradeep, Odisha.	10.		
	S.O. No.	5500007609, dtd. 16.08/2024			
	le Description	: Stack: Gas / Flue Gas		Equipment	Allered Co.
Sampl	le ID No.	: AP-FG/24-25/0305	Stack Moni		HSCH-
Name	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odista.	ID No.: RVE	V5MK/07 (Cr	Validity: 30.04.
Date &	k time of sampling	: 21.05.2025 (12:10 P.M. to 12:46 P.M.)	Physical & (Parameters	Lasted
Sampl	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)			O ₃ , CO ₂ & CO
Sampl	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:	city, Gas Have	01,002,600
	sis Started on	: 27.05.2025	PM. NH. &	THE	
Analy	sis Complesed on	: 27,05,2025	1		
A.	General information abo	ut stack :			
1.	Stack connected to	: DAP - A			
2.	Emission due to	: Process Emmision			
3.	Material of construction of	stack: : M.S.			
4.	Shape of stack	: Circular,			
5.	Whether stack is provided	with permanent platform & ladder: Yes.			
В.	Physical characteristics	of stack :			
3.	Height of the stack from gr	ound level : 50 m			
4.	Diameter of the stack at say				
5.	No. of Traverse point Height of the sampling point	: 30 Nos.			
C.	Analysis / Characteristic	nt from GL : 35 m			
1	Fuel used :				
D.	Environmental condition	2. Fael consumption :		3.Lond : -	
1.	Barometric pressure : 756-1		202000000000		
E.	Results of Physical Parar	materia of Eliza Can :	Temperat	ис: 36 °С	
SI No					
1.	Temperature of emission	Test Method 18 11255 : Part 3 : 2008	Unit		Cesults
2.	Velocity of gas in duct	The state of the s	°C		58
3.		IS 11255:Part 3:2008	m/sec		15.56
E.	Quantity of gas flow	IS 11235 Part 3:2008	NM³/hr		85430
_	Results of gaseous emiss				
51 No	Test Parameters	Test Method	Unit	Results	Norms
_					as per CPCB
L	Carbon monoxide	IS 11255 : Part 1 : 1985 By Orant	Sicviv.	< 0.2	Not Specified
2.	Carbon dioxide	IS 11255 : Part 1 : 1985 By Orsat	% v/v	0.2	Not Specified
3.	Oxygen	IS 13270 (By Onut): 1992	26 v/v	19.8	Not Specified
4.	Particulate Matters	1S 11255 : Part 1 : 1985	mg/Nm3	65	150 max
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm ³	2.82	
6.	Ammonia us NH _k	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm	177.06	< 10 300 max.

Report Verified by

Reviewed & Aarthorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT |-

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CIN: U51109WB1931PTC007007



TEST REPORT

Certii	icate No. AP-FG/24-25/0	306 Issue Date: May 27, 202	5		Page 1 of
ssue	d to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		raye ror
Addre	155	: Paradeep, Odisha.			
	S.O. No.	: 5500007609, dtd. 16:08:2024			
	e Description	: Stack Gas / Flue Gas		Equipment	used:
	e ID No.	: AP-FG/24-25/0306	Stack Monit	toring Kit	
Name	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB	SMK/07 (Cal	Validity: 30.04.20
		Paradeep, Odisha.		Parameters .	
	time of sampling	: 21.05.2025 (01:00 A.M. to 01:36 P.M.)	Physical & C		
	ing Plan & Method	RVH/FM/45 & IS: 11255 (Part-1,2 & 3)		ity, Gas flow,	0,00,800
Sampa	ing Carried out by is Started on	: Mr. Partha Pratim Mandal	Circmical :		
	in Started on is Completed on	27.05.2025	PM, NH, &	TF	
A.	General information abo	: 27.05.2025			
T.	Stack connected to	111200000000000000000000000000000000000			
2	Emission due to	: DAP - B			
3.	Material of construction of	: Process Eliminision stack : M.S.			
4.	Shape of stack	Circular.			
5.		with permanent platform & ladder : Yes.			
В.	Physical characteristics	of stack :			
1.	Height of the stack from gr				
3.	Diameter of the stack at sur				
4.	No. of Traverse point	: 30 Nos			
5.	Height of the sampling pois	nt from GL : 35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		3.Load :	
D.	Environmental condition	S :			
1,	Barometric pressure: 756:		2. Temperat	urs : 36 %	
E.	Results of Physical Parar	maters of Flue Gas :			
SI No		Test Method	Unit	1	Cesults
1_	Temperature of emission	IS 11255 : Part 3 : 2008	%C		@
2	Velocity of gas in duct	15 11255:Part 3:2008	m/sec		16.12
3.	Quantity of gas flow	15 11255:Part 3:2008	NM ³ /hr		86590
E.	Results of gaseous emis-		1 204 //11	-	-003.90
SINo	Test Parameters	Test Method	Unit	Results	Norms
	SECTION ASSESSED.	A.C. A.	15 MIL	resums.	3.00
1.	Carbon monoxide	IS 11255 Part 1 1985 By Omat	% v/v	<0.2	as per CPCB
2.	Carbon dioxide	1S 11255 - Part 1 : 1985 By Orsat			Not Specified
3.	Oxygen	18 13270 (By Cesar): 1992	% v/v	0.4	Not Specified
4	Particolate Matters	11 (C) (C) (C) (F) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	%x/v	19.8	Not Specified
	CONTRACTOR INVESTOR	IS 11255 : Part 1 : 1985	mg/Nm3	69.8	150 max.
3	Total Fluoride	IS 11255 (Part - 5) = 1990	mg/Nm ³	3.56	< 10
50		Methods of Air Sampling & Analysis, 3rd Ed.	mg/Nm ³		1

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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TEST REPORT

	ficate No. AP-FG/24-25/	0307 Issue Date: May 27, 202	25		Dage 1 of
ssue		: M/S. M/S. PARADEEP PHOSPHATE L	TD		Page 1 of
Addr	055	Paradeep, Odisha.			
	S.O. No.	5500007609, dtd. 16.08.2024			
Samp	d Description	: Stack Gas / Flue Gas	T	Equipment	usad:
	le ID No.	: AP-FG/24-25/0307	Stack Moni	toring Kir.	MACIN-
Vinne	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB	PSMK/07 (Ca	Validity: 30.04.2
		Paradeop, Odishu.		Parameters	
	k time of sampling	: 21.05.2025 (05:10 P.M. to 05:43 P.M.)	Physical & C		
samp	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Pmr-1,2 & 3)	Temp., Veloc	city, Gas flow,	0,00,400
Sampl	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:	//	
Analy	sis Started on	: 27.05.2025	PM, NH, &	TF	
	sis Completed on	: 27,05,2025	100 Becchin #655		
A.	General information about	The second of the second			
2.	Stack connected to	1DAP - C			
3.	Emission due to	Process Emmission			
4.	Material of construction of Shape of stack				
5.		: Circular.			
В.	Physical characteristics	with permanent platform & ladder : Yes.			
1	Height of the stack from gr	or stack			
2	Sampling Point				
3.	Diameter of the stack at sa	: Chimney mpling point : 2.8 m			
	N. Carlotte and Assessment Control of the Control o				
(0.1	DOC OF THEVOLUE DOIDE	- TO Niew			
5.	No. of Traverse point Height of the sampling poi	at from GL 35 m			
	Height of the sampling poi	nt from GL : 35 m			
5.	Height of the sampling poi Analysis / Characteristic	nt from GL : 35 m of stack Gas / Flue Gas ;		711	
5. C.	Height of the sampling poi Analysis / Characteristic Foel used :	nt from GL : 35 m of stack Gas / Flue Gas ;		3.Lond :	
5. C.	Height of the sampling poi Analysis / Characteristic Focl used : Environmental condition	of stack Gas / Flue Gas; 2. Fuel consumption:			
5. C. 1. D.	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental condition Barometric pressure : 756 :	of stack Gas / Flue Gas; 2. Fuel consumption: 5:	2. Temperat		
5. C. 1. D. 1. E.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition Barometric pressure : 756 : Results of Physical Parar	of stack Gas / Flue Gas ; 2. Fuel consumption : s : mmHg neters of Flue Gas :	2. Temperat	ure: 36 °C	
5. C. 1. D. 1. E.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition Barometric pressure : 756 pt Results of Physical Parar Test Parameters	of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg neters of Flue Gas; Test Method	2. Temperat	ure: 36 °C	Results
5. C. 1. D. 1. E. SI No	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental condition Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission	of stack Gas / Flue Gas; 2. Fuel consumption:— 5: mmHg meters of Flue Gas; Test Method IS 11255 Part 3: 2008	2. Temperat	ure : 36 °C	65
5. C. 1. D. 1. E. SI No	Height of the sampling poi Analysis / Characteristic Fuel used : — Environmental conditions Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Method IS 11235 Part 3: 2008 IS 11235 Part 3: 2008	2 Temperat Unit C m/sec	ure : 36 °C	65 17.31
5. C. 1. D. 1. E. SI No 1 2 3	Height of the sampling poi Analysis / Characteristic Foel used : — Environmental condition: Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow	of stack Gas / Flue Gas; 2. Fuel consumption:— 5: mmHg meters of Flue Gas; Test Method IS 11255-Part 3: 2008 IS 11255-Part 3:2008	2. Temperat	ure : 36 °C	65
5. C. 1. D. 1. E. SI No 1. 2. 3. E.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss	of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Method IS 11255 Part 3:2008 IS 11255 Part 3:2008 IS 11255 Part 3:2008	2 Temperat Unit C m/sec	ure : 36 °C	65 17.31
5. C. 1. D. 1. E. SI No 1. 2. 3. E.	Height of the sampling poi Analysis / Characteristic Foel used : — Environmental condition: Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow	of stack Gas / Flue Gas; 2. Fuel consumption:— 5: mmHg meters of Flue Gas; Test Method IS 11255-Part 3: 2008 IS 11255-Part 3:2008	2 Temperat Unit C m/sec	ure : 36 °C	65 17.31
5. C. 1. D. 1. E. SI No 1. 2. 3. E. SI No	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental condition Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas: Test Method IS 11255-Purt 3: 2008	2. Temperat Unit °C m/sec NM³/hr	uro: 36°C	65 17.31 12505 Norms
5. C. 1. D. 1. E. Si No 1. 2. 3 E. Si No	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental conditions Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Method IS 11255 Part 3: 2008	2. Temperat Unit °C m/sec NM³/hr	uro: 36°C	65 17.31 12505 Norms as per CPCB
5. C. 1. D. 1. E. Si No 1. 2. 3. E. Si No 1. 2. 2.	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental condition Barometric pressure : 756 : Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas: Test Method IS 11255-Purt 3: 2008	2. Temperat Unit C m/sec NM ³ /hr Unit	Results	17.31 12505 Norms as per CPCB Not Specified
5. C. 1. D. 1. E. 11 No 1. 2. 3 E. 11 No 1. 1.	Height of the sampling poi Analysis / Characteristic Fuel used : Environmental conditions Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Method IS 11255 Part 3: 2008	2. Temperat Unit °C m/sec NM³/hr Unit % u/v % v/v % v/v	Results <0.2	Norma as per CPCB Not Specified Not Specified
5. C. 1. D. 1. E. Si No 1. 2. 3. E. Si No 1. 2. 2.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition: Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Carbon dioxide	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Methed IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 1: 1985 By Ornat IS 13270 (By Ornat): 1992	2. Temperat "C m/sec NM³/hr Unit % v/v % v/v % v/v	Results = 0.2	Norms as per CPCB Not Specified Not Specified Not Specified
5. C. 1. D. 1. E. 3. E. E. Sti No. 1. 2. 3. 4.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition: Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Curbon dioxide Oxygen	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — 8: mmilg neters of Flue Gas: Test Method IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 1: 1985 By Orsat IS 11255 Part 1: 1985 By Orsat IS 13270 (By Orsat): 1992 IS 11255 : Part 1: 1985	2. Temperat "C m/sec NM*/hr Unit "k v/v % v/v % v/v mg/Nm3	Results <0.2 0.2 19.6 59	Norms as per CPCB Not Specified Not Specified Not Specified Not Specified 150 max.
5. C. 1. D. 1. E. Si No 1. 2. 3. E. Si No 1. 2. 3. 3.	Height of the sampling poi Analysis / Characteristic Foel used : Environmental condition: Barometric pressure: 756: Results of Physical Parar Test Parameters Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Carbon dioxide Oxygen Particulate Matters	nt from GL : 35 m of stack Gas / Flue Gas; 2. Fuel consumption: — s: mmHg meters of Flue Gas; Test Methed IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 3: 2008 IS 11255 Part 1: 1985 By Ornat IS 13270 (By Ornat): 1992	2. Temperat "C m/sec NM³/hr Unit % v/v % v/v % v/v	Results = 0.2	Norms as per CPCB Not Specified Not Specified Not Specified

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Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

centi	ficate No. AP-FG/24-25/0	1308 Issue Date: May 27, 202	15		
Issue		: M/S. M/S. PARADEEP PHOSPHATE L'	TD.		Page 1 of
Addre	e55	: Paradeep, Odisha.			
	S.O. No.	5500007609, dtd. 16 08 2024			
	e Description	: Stock Gas / Flue Gas		Equipment	used:
	e ID No.	: AP-FG/24-25/0308	Stack Moni		MACM
Name	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha.	ID No.: RVE	NSMK/07 (Ca	l. Validity: 30.04.2
Onto &	time of sampling	: 21.05.2025 (06:00 P.M. to 06:36 P.M.)	Physical & C	Parameters	Lested
Sampl	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)			0,00,800
Sampl	ing Carried out by	: Mr. Partha Pratim Mandal	Chemical:	city, Con How.	05.005.80.00
Analys	sis Started on	: 27.05.2025	PM. NH, &	THE	
Analys	sis Completed on	; 27.05.2025	1 1111111111111111111111111111111111111		
A.	General information about	ut stack :			
1_	Stack connected to	DAP - D			
2.	Emission due to	: Process Emmision			
3.	Material of construction of	stack : M.S.			
4.	Shape of stuck	: Circular,			
5.	Whether stack is provided	with permanent platform & ladder : Yes.			
В.	Physical characteristics				
3.	Height of the stack from gr	nund level : 50 m			
4.	Diameter of the stack at sur				
5	No. of Traverse point	: 30 Nos.			
C.	Height of the sampling poir Analysis / Characteristic	nt from GL ; 35 m			
L	Fuel used :			US: 10	
D.	Environmental conditions	2. Fuel consumption :		3.Load:	
1.	Barometric pressure : 756 x		dem on the A	S. S. C. P. D. G. P. C.	
E.	Results of Physical Parar	notage of Fluo Con :	2. Temperat	ure:34 °C	
SINo					
1	Temperature of emission	Test Method	Unit	- 1	Results
2		15 11255 : Part 3 : 2008	°C		60
	Velocity of gas in duct	IS-13255-Part 3:2008	m/sec		16.65
3.	Quantity of gas flow	IS-11255:Part.3:2008	NM ³ /hr		03632
E.	Results of gaseous emiss		110		
SINo	Test Parameters	Test Method	Unit	Results	Norms
					as per CPCB
F.	Carbon monoxide	15 11255 : Part 1 : 1985 By Onat	56 v/v	< 0.2	Not Specified
2.	Carbon dioxide	IS 11255: Part 1: 1985 By Orsat	% v/v	0.2	Not Specified
3.	Oxygen	IS 13270 (By Ornat): 1992	% v/v	19.6	Not Specified
4.	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	72	150 max.
35	Total Pluoride	(S 11255 (Part - 5): 1990	mg/Nm ¹	3.62	< 10
	Ammonis as NH ₄	Methods of Air Sampling & Analysis, 3rd Ed.	mg/Nm ³	144.35	300 max.

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Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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TEST REPORT

Certif	icate No. AP-FG/24-25/	0309 Issue Date: May 27, 202	25		Page 1 of
ssue	d to	: M/S. M/S. PARADEEP PHOSPHATE L	TD.		Page 1 of
Addre		Paradeep, Odisha.			
	S.O. No.	: 5500007609, did. 16.08.2024			
	e Description	: Stack Gas / Flore Gas		Equipment	used:
	e ID No.	: AP-FC/24-25/0309	Stack Moni		macus.
lame	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 30.04.2
	CONTRACTOR OF THE PROPERTY OF THE PARTY OF T	Paradeep, Odisha.		Parameters	
	time of sampling	: 20.05.2025 (04:35 P.M. to 05:20 P.M.)	Physical & C		
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Veloc	ity, Gas flow;	02, 002 & 00
	ing Carried out by	: Mr. Partha Prutim Mandal	Chemical:		
	sis Started on	: 27.05.2025	PM & TF		
	is Completed on	: 27.05.2025			
A.	General information abo				
2.	Stack connected to Emission due to	: PAP # 1			
3.	Material of construction o	: Process Emmision			
4.	Shape of stack				
5.		: Circular. with permanent platform & ladder: Yes.			
B.	Physical characteristics	of stock			
1.	Height of the stack from g	round level : 50 m			
3.	Diameter of the stack at sa	impling point : 2.7 m			
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling po-	int from GL :35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		3.Loud:-	
D.	Environmental condition	9;		-1-E-MINE	
1.	Barometric pressure: 756		2. Temperat	100 - 24 PM	
E.	Results of Physical Param		ac (emperii	me, 30 C	
INo	Test Parameters	Test Method	Unit	-	tesults
1.	Temperature of emission	IS 11255 : Part 3 : 2008	"C		The state of the s
2.	Velocity of gas in duct	IS 11255 Part 3-2008			45
3.	Quantity of gas flow	IS 11255 Part 3:2008	m/sec		5.15
F.	Results of gaseous emis	The state of the s	NM ³ /hr		94991
I No	Test Parameters				
11.40	1est Parameters	Test Method	Unit	Results	Norms
	20.1				as per CPCB
1.	Carbon monoxide	IS 11255 : Part 1 : 1985 By Orsal	54.575	< 0.2	Not Specified
2.	Carbon dioxide	IS 11255 : Part 1 : 1985 By Orsat	% v/v	0.2	Not Specified
3.	Oxygen	1S 13270 (By Orgat): 1992	% v/v	19.6	Not Specified
4.	Particulate Matters	1S 11255 : Part 1 : 1985	mg/Nm3	44	150 max.
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm ³	5.30	20 max.
G.	Pollution control device		1116/1400	47.427.60	250 H100C

Report Verified by

Reviewed & Apthorised by

Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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Phone : (033) 4044-3380 / 3381 / 3382 / 3383, Website : www.rvbriggs.com

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CIN: U51109WB1931PTC007007



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	ificate No. AP-FG/24-25/ ed to	TO O OF STREET, INITIALLY ELL, EUL	25		Page 1
Addr	m - m - m - m - m - m - m - m - m - m -	: M/S. M/S. PARADEEP PHOSPHATE L'	TD.		
11 11 11 11 11	S.O. No.	Paradeep, Odisha.			
	de Description	: 5500007609, dtd. 16:08:2024 : Stack Gas / Flue Gas			
	ile ID No.	: AP-FG/24-25/0310		Equipmen	nt used:
	of Industry / Site	MS. MS. PARADEEP PHOSPHATE LTD.	Stack Mon	itoring Kit	
		Paradeep, Odisha	ID Not RV	B/SMK/07 (C)	al. Validity: 30.04 2
	& time of sampling	: 20.05.2025 (12:16 P.M. to 12:58 P.M.)	Physical &	<u>Parameter</u>	3 Tested
	ling Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Toron Valo	General :	, O ₂ , CO ₂ & CO
	ling Carried out by	Mr. Partha Pratim Mandal	Chemical :	city, this now	02,002,800
	sis Started on	: 27,05.2025	PM & TF		
	sis Completed on	: 27.05.2025	1 111 60 11		
Α.	General information abo	ut stack :			
L	The second secon	: PAP # 2			
2.	Emission due to	: Process Emmision			
4.	Material of construction of Shape of stack				
5.		: Circular,			
B.	Physical characteristics	with permanent platform & ladder : Yes.			
L	Height of the stack from a	of Stack :			
2 District Co.					
4.	No. of Traverse point : 1.0 m				
5,	Height of the sampling poi	nt from GL - 45 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1,	Fuel used :	2. Fuel consumption -		3.Lond :	
D.	Environmental conditions	3 :		J.L.OHU.;	
L	Barometric pressure: 756	mmHg	2. Temperat	non 1 20 2/2	
E.	Results of Physical Paran	neters of Flue Gas :	== 1 emperar	mrc : 38 C	
l No	Test Parameters	Test Method	Unit		D Iv
1.	Temperature of emission	IS 11255 : Part 3 : 2008	#C		Results
2.	Velocity of gas in duet	IS 11255 Part 3 2008	m/sec		49
3.	Quantity of gas flow	IS 11255 Part 3:2008	0.0110,400	12.82	
F.	Results of gaseous emiss	ion :	NM ³ /hr		32545
LNo	Test Parameters	Test Method	1		
		rest meernoa	Unit	Results	Norms
1.	Carbon monoxide	SS 11255 - Part 1 - 1985 By Orsat			as per CPCB
2.	Carbon dioxide		56 V/V	< 0.2	Not Specified
3.	Oxygen	IS 11235 : Part 1 : 1985 By Orsat	% v/v	0.4	Not Specified
4.	Particulate Matters	75 13270 (By Onur): 1992	% v/v	19,4	Not Specified
5.	Total Fluoride	IS 11255 : Part 1 : 1985	mg/Nm3	39.7	150 max.
	LOTH LIBOURGE	IS 11255 (Part - 5) : 1990	mg/Nm ³	4.20	20 max.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

- END OF TEST REPORT :-

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^{*} Results relate only to the parameters of the item tested.



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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25-26/0209

Issue Date : June 30, 2025

Page 1 of 1

issued to

: M/S. PARADEEP PHOSPHATE LTD.

Address

Your Ref. No.

: Paradeep, Odisha

5500007609, dtd. 16.08.2024

Sample Description

: Ambient Air

Sample ID No.

: AF-AAQ/25-26/0209

Name of Industry / Site

: M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location Date & Time of sampling : Near AAQMS # 01

: 23.06.2025 (10:40 A.M.)-24.06.2025 (10:40 A.M.)

Duration of Sampling

Sampling Plan:

: 24Hrs

: RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal.

Method of Sampling

: As per CPCB guidelines (Valume-I)

Analysis Started on

24.06.2025

Environmental conditions

ID No.: RVB/AFDS/PM2.5/14, Call. Velid upto: 12.07.25

D No.: RVB/RDS/AP\$M60/BL/15, Call Valid upto: 02:11:25

Weather Condition: Clear

Ambient Fine Dust Sampler

Raspenble Dust Sampler

Temperature: Max: 31°C & Min: 27.0°C

Barometric Presure: 755 mmHg

Analysis Completed on

: 30.06.2025

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH2,

Equipment used:

CO, Pb, Ni, As, CaHa, BaP

TEST FINDINGS:

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L	µg/m³	52.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5162 (Part - 23): 2006	µg/m ³	59.6	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS-5182 (Part + 2): 2001	µg/m³	6.00	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13.00	80 (24 Hourly.)
5.	Ozone as O ₃	(S 5182 (Part - 9) : 1974	µg/m ³	12.00	180 (1 Hourly.)
6	Ammonia as NH ₃	SOF No.: RVS/SOF/01/10 (Indephendi Mathod) issue No. 54, Issue Date: 10.01.2018	µg/m³	16.00	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS : 5182 (Part - 10), 1999 Non Dispersive infra Red (NDIR) specimosopy	mg/m ³	0.600	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.282	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No:: RV9/SOP/01/15 (AAS Method) issue No. 04/ Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RV8/90P/01/16 (AAS Method) Issue No. 04.	ng/m³	< 0.25	6.0
11.	Benzene as C ₀ H ₀	IS 5182 (Fart - 11): 2006.	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit. Notes: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³.6 Benzo(µ)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

Certificate No. AP-AAQ/25-26/0210

Page 1 of 1

Issued to

: M/S. PARADEEP PHOSPHATE LTD.

Address

: Paradeep, Odisha

Your Ref. No.

5500007609, dtd. 16.08.2024

Sample Description

Ambient Air

Sample ID No.

: AP-AAQ/25-26/0210

Name of Industry / Site.

: M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location

: Near AAQMS # 02

Date & Time of sampling Duration of Sampling

: 22.06.2025 (10:35 A.M.)-23.06.2025 (10:35 A.M.)

: 24Hrs.

Sampling Plan:

: RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal

Method of Sampling Analysis Started on

: As per CPCB guidelines (Volume-I)

Analysis Completed on

: 24.06.2025 : 30.06.2025

Equipment used:

Ambient Fine Dust Sampler

Issue Date : June 30, 2025

ID No.: RVB/AFDS/PM2.5/14, Cal. Valid upto: 12.07.25

Resperble Dust Sampler

D No.: RVB/RDS/APM460/BL/15, Cal. Valid upto: 02.11.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 31.0°C & Min: 27.0°C

Barometric Presure: 756 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, C,Ha, BaP

TEST FINDINGS:

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MCE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m ³	42.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2005	µg/m³	51.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.20	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m²	15.40	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	13.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOF No.: RVBrSOP/01/10 (indephanel Mathod) lause No. 04, insue Dale: 10/01/2018	µg/m²	16.80	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispursive Infra Red (NDIR) ejectroscopy	mg/m³	0.700	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m²	0.008	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15-(AAS Method) insue No. 64, Issue Date: 10.01.2018	ng/m³	<0.5	20
10.	Arsenic as As	SOP No.: RVB-SDP101/16 (AAS Method) base No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₀ H ₀	IS 5182 (Part - 11): 2005,	µg/m ⁰	<1.0	5.0
12	Benzo (a) Pyrene	IS-5182 (Part - 12): 2004.	ng/m³	< 0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzola)Pyrene: 0.5 ng/m²

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST DEDODT

Ce	rtificate No. AP-AAQ/25-	20/024	TEST REPOR	The section of the latter		
-	ntricate No. AP-AAQ/25- ued to			Issue Date	: June 30, 2025	Page 1 of
. MIG. PAIONDEEL PHOSPHATE ETD.						
r draubap, Odistia			0007609, dtd. 16.08.2024			
Sample Description : Ambient Air				Equipment	ugad:	
San	nple ID No.	: AP-A	AQ/25-26/0211	Ambient Fine	Dust Sampler	useu.
Nac	ne of Industry / Site	MIS. F	PARADEEP PHOSPHATE LTD.	ID No.: RVB	AFDS/PM2.5/14, Cal. V	alid upto: 12.07.25
San	npling Location		deep, Odisha AAQMS#83	Resperble D	ust Sampler	
			2025 (10:00 A.M.)-21.06 2025 (10:00 A.M.)	ID NOT MADE	RDS/APM450/BL/15, C Environmental of	
	ation of Sampling	24Hrs		Weather Co.	ndition: Clear	omotoms
		: RVB/F	177D-1777	Temperature	: Max: 31.0°C & Min:	27.0°C
	mpling Carried out by			Barometric F	Presure: 758 mmHg	
_	TANK TO THE PROPERTY OF THE PARTY OF THE PAR		er CPCB guidelines (Volume-I)			
Analysis Started on : 24.06.2025					Mo SO NO, O, NH	
Analysis Completed on : 30,06,2025			CO, Pb, Ni	As, C ₆ H ₆ , BaP		
	ST FINDINGS:-					
SI. No.	Parameters		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	5	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	47.6	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)		IS 5182 (Part - 23): 2006	μg/m²	52.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SC	02	IS 5182 (Part - 2): 2001	µg/m³	4.96	80 (24 Hourly.)
4,	Nitrogen Dioxide as N	02	IS 5182 (Part - 6): 2006	µg/m²	18.00	80 (24 Hourly.)
5.	Ozone as O ₃		IS 5182 (Part - 9) : 1974	µg/m ³	13.00	180 (1 Hourly.)
6.	Ammonia as NH ₂		SOP No : RVB/SOP/01/10 (Indephenol Method) lesse No : 04, lesse Date: 10.01.2018	hã/w ₃	20.00	400 (24 Hourly.)
7.	Carbon Monoxide as (00	15 : 5182 (Part - 10), 1999 Not Dispursive Infra-Red (NDIR) spectroscopy	mg/m ³	0.720	04 (1 Hourly.)
8.	Lead as Pb		IS 5182 (Part - 22): 2004	µg/m³	0.810	1.0 (24 Hourly.)
9.	Nickel as Ni		SOP No.: RVB/SOP/01/15 (AAS Method) lique No. 04, lique Date: 10.01,2018	ng/m ³	<5.0	20
10.	Arsenic as As		SOP No : RVB/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2016	ng/m ³	0.28	6.0
11.	Benzene as C ₆ H ₆		IS 5182 (Part - 11): 2006,	µg/m²	1.03	5:0
12	Benzo (a) Pyrene		IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m³, Arsenic: 0.25 ng/m³, Berozene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

	ILUI INLI U	PA I		
Certificate No. AP-AAQ/25	-26/0212	Issue Date : June 30, 2025	Page 1 of 1	
Issued to Address Your Ref. No.	: M/S. PARADEEP PHOSPHATE LTD. : Paradeep, Odisha : 5500007609, dtd. 16.08.2024			
Sample Description Sample ID No. Name of Industry / Site Sampling Location Date & Time of sampling Duration of Sampling Sampling Plan : Sampling Carried out by Method of Sampling	Ambient Air AP-AAQ/25-26/0212 M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha Near AAQMS # 04 21.06.2025 (10:15 A.M.)-22.06.2025 (10:15 A.M.) 24Hrs. RVB/FM/45 Mr. Partha Pratim Mandal As per CPCB guidelines (Volume-I)	Equipment used: Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/14, Cal. Valid upto Respenble Dust Sampler ID No.: RVB/RDS/APM460/SL/15, Cal. Valid Environmental condition Weather Condition: Clear Temperature: Max: 30.0°C & Min: 27.0°C Barometric Presure: 756 mmHg	upto: 02.11.25 ons	
Analysis Started on	: 24.06.2025	Parameters Tested: PM _{2.5} , PM ₁₀ , SO	NO2 O1 NH2	

TEST FINDINGS:-

Analysis Completed on

: 30.06,2025

SI, No.		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m ³	39.8	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	49.0	100 (24 Hourly.)
3,	Sulphur Dioxide as SO ₂	IS:5182 (Part - 2): 2001	µg/m ³	5.60	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part +6): 2006	µg/m³	19.50	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.70	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indephano) Methody turue No. 94, Issue Date: 10,01.2018	µg/m³	18.20	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (First - 10), 1999 Non Dispersive into Red (NDR) spectroscopy	mg/m ³	0.760	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.880	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) lease No. 04, lease Date: 10:01:2018	ng/m³	<5.0	20
10.	Arsenic as As	SCP No.: RVB/SCP/01/16 (AAS Method) leave No. 04, insue Cate: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C _e H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m ³	<0.5	10

Minimum detection Limit: Nickel: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzoja)Pyrana: 0.5 ng/m²

Report Verified by

Reviewed & Authorised by

CO, Pb, Ni, As, CoHo, BaP

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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 Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007



TC-12347

ortific	ate No. AP-FG/24-25/0	TEST REF	25	Page 1 of 1
ssued		: M/S. M/S. PARADEEP PHOSPHATE L'	TD.	
Address		Paradeep, Odisha.		
our S.C		: 5500007609, dtd. 16.08.2024		
	Description	: Stack Gas / Flue Gas		ment used:
ample l		: AP-FG/24-25/0524	Stack Monitoring	Kit
same of	Industry/Site	: M/S, M/S, PARADEEP PHOSPHATE LTD.		06 (Cal. Vulidity: 04.05.26
		Paradeep, Odisha.		neters Tested
	time of sampling	: 23.06.2025 (10:40 A.M. to 11:19 A.M.)	Physical & General	
	g Plan & Method	: RVB/FM/45 & IS: 11255 (Purt-1,2 & 3)		is flow, O ₃ , CO ₂ & CO
	g Carried out by	: Mr. Partha Pratim Mandal	Chemical:	
	s Started on	: 24.06.2025	SO ₂ & Acid Mist	
knalysis	s Completed on	: 30.06.2025		
	General information abou	it stack:		
	Stack connected to	: SAP - A : Process Emmision		
	Emission due to			
	Material of construction o	Circular.		
4.	Shape of stack	with permanent platform & ladder : Yes.		
5.	Physical characteristics	of stock		
В.	Physical characteristics	round level : 120 m		
1.	1. Height of the salest state grant and a			
	No. of Traverse point	: 30 Nos.		
5.	Height of the sampling po			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :		
	Fuel used :	2. Fuel consumption :	3.Lo	ad :
	Environmental condition	s:		
	Barometric pressure: 752		2. Temperature :	32 °C
E.	Results of Physical Para	meters of Flue Gas :		
SI No		Test Method	Unit	Results
	Temperature of emission		°C	65
1.		IS 11255 Pars 3:2068	m/sec	14.31
2.	Velocity of gas in duct		10.000	251152
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM³/hr	231132
F.	Results of gaseous emit	ssion :		
SINo	Test Parameters	Test Method	Unit	Results
1.	Sulphur dioxide	19 11255 : Part 2 : 1985	mg/Nm	665.05
	Carbon monoxide	IS 13270 : 1992 (By Orsat)	26.575	<0.2
2		15 13270 : 1992 (By Orait)	96 v/v	0.2
2.		THE RESERVE OF THE PARTY OF THE PARTY.		
3.	Carbon dioxide	10 17220 - 1002 (D. Cherry)	MG 41707	19.4
12371	Oxygen	1S 13270 : 1992 (By Orsat) SOP No.: RVB/SOP/01/20,	% v/v mg/Nm ³	19.4

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

ertifica	ate No. AP-FG/24-25/00	TEST RED 525 Issue Date: June 30, 20	25	Page 1 of 1		
ssued t		: M/S. M/S. PARADEEP PHOSPHATE L	TD.			
ddress		Paradeep, Odisha.				
our S.O		: 5500007609, dtd. 16.08:2024	Fault	ment used;		
	Description	: Stack Gas / Flue Gas	Stack Monitoring			
iample I	D No.	: AP-FG/24-25/0524 : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No: RVB/SMK/	6 (Cal. Validity: 04.05.26		
same of	Industry / Site	Paradeep, Odisha.		eters Tested		
	and the second lines	: 23.06.2025 (10:30 A.M. to 12:12 P.M.)	Physical & General	2		
	ime of sampling g Plan & Method	: RVB/FM/45 & 1S: 11255 (Part-1,2 & 3)	Temp., Velocity, On	s flow, O ₂ , CO ₂ & CO		
	g Carried out by	: Mr. Partha Pratim Mandal	Ciremical :			
	Started on	: 24,06,2025	SO ₂ & Acid Mist			
	Completed on	: 30.06.2025				
A. 0	General information abou	it stack;				
	Stack connected to	: SAP - B				
2 1	Emission due to	: Process Emmission				
	Material of construction of	f stack : M.S.				
4, 5	Shape of stack	: Circular.				
5.	Whether stack is provided	with permanent platform & ladder : Yes.				
В.	Physical characteristics	of stack:				
1. 1	Height of the stack from g	cound sever 120 m				
3.	Distinctes of the states of sampling point					
4.	No. of Traverse point Height of the sampling po					
5. C.	Analysis / Characteristic	of stack Gas / Flue Gas :				
	Fuel used 1-	2. Fuel consumption :	3.1.0	nd :		
	Environmental condition	15 1				
	Barometric pressure : 752		2. Temperature:	34 °C		
E.	Results of Physical Para	meters of Flue Gas :				
SINo	Test Parameters	Test Method	Unit	Results		
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	66		
		IS 11255 Part 3:2008	m/sec	12.84		
2.	Velocity of gas in duct	mineral grant comp.	NM ³ /hr	227029		
3.	Quantity of gas flow	1S 11255:Part 3:2008	NW (III	A		
F.	Results of gaseous emi-		10.5	Results		
SINO	Test Parameters	Test Method	Unit	625.47		
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³			
2.	Carbon monoxide	15 13270 : 1992 (By Orsat)	% v/v	<0.2		
1	Carbon dioxide	15 13270 : 1992 (By Otsat)	96 V/V	0.2		
3.	A STREET STREET STREET STREET	IS 13270 1992 (By Onat)	36 V/V	19.0		
4	Oxygen	SIOP No.: HVB/SOP/01/20.	mg/Nm²	32.35		
	Acid Mist	Imur No: 04, Issue Date: 10:01:2018	HISZ/CNIN	-		

Report Verified by

Reviewed & Authorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

- with the second size.	No. AP-FG/24-25/05	26 Issue Date: June 30, 202	25	Page 1 of 1
sued to	NO. AP-POIZA-ZOIGO	M/S. M/S. PARADEEP PHOSPHATE LT	TD.	
ddress		Paradeep, Odisha.		
our S.O. N	6	: 5500007609, dtd. 16.08.2024	Faning	ent used:
ample Desc	en etion	: Stuck: Gas / Flue Gas	Stack Monitoring K	f
ample ID N	Ph. I	AP-FG/24-25/0526	ID No. RVH/SMK/06	(Cal. Validity: 04.05.2)
lame of Ind	lustry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	Parame	ters Tested
		Paradeep, Odisha.	Physical & General	
late & time	of sampling	: 22.06.2025 (02:20 P.M. to 03:02 P.M.)	Temp., Velocity, Gms	flow, O ₃ , CO ₂ & CO
Sampling Pi	ian & Method	: RVB/FM/45 & IS; 11255 (Pwt-1,2 & 3)	Chemical:	
Sampling Co	arried out by	: Mr. Partha Pratim Mandal	SO ₂ & Acid Mist	
Analysis Str	arted on	: 24.06.2025	70.M. 20.000	
Analysis Co	ampleted on	: 30.06.2025		
A. Gen	neral information abou	stack:		
	ler connected to	: Process Emission		
2. Emi	ission due to			
	terial of construction of	· Circular.		
4. Shii	ipe of stack	with permanent platform & ladder : Yes.		
	vsical characteristics	of stack :		
B. Phy	ight of the stack from g	round level : 120 m		
1. He	ameter of the stack at se	suppling point : 2.7 m		
3. Dis	of Traverse point	: 30 Nos.		
4.0	to the of the government me, no	sint from GL : 35 m		
C. An	alveis / Characteristic	of stack Gas / Flue Gas	3.Los	A comme
1 Fu	el used :	2. Fuel consumption :	2,1.09	0.17
D. En	nvironmental conditio	ns:	and the second second second second	n Acc
) Bo	represente pressure : 752	mmHg	2. Temperature :	14 (
E Re	esults of Physical Par	ameters of Flue Gas :		Results
	Test Parameters	Test Method	Unit	69
	emperature of emission	IS 11255 : Part 3 : 2008	°C	150
		15 11255;Part 3:2008	m/sec	5.94
	elocity of gas in duct	IS 11255 Part 3:2008	NM ³ /hr	102695
3. 0	Quantity of gas flow		1550 130	
F. R	lesuits of gaseous em	ission:	Unit	Results
SINo	Test Parameters	Test Methed		532.50
	Sulphur dioxide	15 11255 : Part 2 : 1985	mg/Nm ³	<0.2
	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% V/V	
		15 13270 : 1992 (By Orsat)	56 v/v	0.2
	Carbon dioxide	(S 13270 : 1992 (By Crist)	% v/v	19.4
	DAY SECULIAR DE	D DEW - 11/2 (2) Annua		40.00
	Oxygen	SOP No.: RVE/SOP/01/20, Issue Not: 04, Issue Date: 10.01.2018	mg/Nm	38.82

Report Verified by

Reviewed & Authorised by

Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007 TEAT DEDADT



TC-12347

	TEST RE	PORT
Certificate No. AP-FG/24-2	5/0527 Issue Date: June 30, 20	25 Page 1 of 1
Issued to Address Your S.O. No.	: M/S. M/S. PARADEEP PHOSPHATE L' : Paradeep, Odisha. : \$500007609, dtd. 16.08.2024	TD.
Sample Description Sample ID No. Name of Industry / Site Date & time of sampling Sampling Plan & Method	Stack Cins / Flue Cim : AP-FG/24-25/0527 : M/S. M/S. PARADIEEP PHOSPHATE LTD Paradeep, Odisha : 21.06.2025 (03:30 P.M. to 04:06 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Equipment used: Stack Monitoring Kit ID No.: RVB/SMK/06 (Cal. Validity: 04.0526) Parameters Tested Physical & General: Temp., Velocity, Gas flow, O ₃ , CO ₂ & CO
Sampling Carried out by	: Mr. Partha Pratim Mandal	Chemical: PM, NH, & TF
Analysis Started on Analysis Completed on	: 24.06.2025 : 30.06.2025	Em. (vi)
A. General information of the Stack connected to 2. Emission this to	about stack : : DAP - A : Process Emmission	

Material of construction of stack : M.S. : Circular.

Shape of stack Whether stack is provided with permanent platform & ladder : Yes.

Physical characteristics of stack;

1. Height of the stack from ground level : 50 m -2.8 m 3. Diameter of the stack at sampling point : 30 Nos. 4. No. of Traverse point

Height of the sampling point from GL 135 m Analysis / Characteristic of stack Gas / Flue Gas;

3.Loud : --2. Fuel consumption : --Fuel used :--

Environmental conditions:

2. Temperature: 34 °C Barometric pressure: 752 mmHg

Results of Physical Parameters of Flue Gas:

E. Results of Frigure	Test Method	Unit	Results
SI No Test Parameters 1 Temperature of emission 2 Velocity of gas in duct	IS 11255 : Part 3 : 2008 IS 11255 : Part 3:2008 IS 11255 : Part 3:2008	"C m/sec NM*/hr	56 15.32 282528
3. Quantity of gas flow	15 11453 PMT 3-4600	23702.750	

SI No	Results of gaseous emis Test Parameters	Test Method	Unit	Results	Norms us per CPCB
1 - 2 - 3 - 4 - 5 : 6 -	Carbon monoxide Carbon dioxide Oxygen Particulate Matters Total Fluoride Ammonia as NH ₃	IS 13270 : 1992 (By Christ) 1S 13270 : 1992 (By Christ) 1S 13270 : 1992 (By Christ) IS 13275 : Part 1 : 1985 IS 13255 : Part 1 : 1985 IS 13255 (Part - 5) : 1990 Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	% v/v % v/v mg/Nm3 mg/Nm3	<0.2 0.4 19.6 57 2.24 (55.18	Not Specified Not Specified Not Specified 150 max. < 10 300 max.

Pollution control device

Details of pollution control devices attached with the stack : Wet Scrubber

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT >

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CIN: U51109WB1931PTC007007



TC-12347

TEST REPORT

OCH III	ficate No. AP-FG/24-25/0	0528 Issue Date: June 30, 20				
SSUB	d to	: M/S. M/S. PARADEEP PHOSPHATE LTD	3		Page 1	
Addre		: Paradeep, Odisha.	50			
	S.O. No.	3500007609, dtd. 16.08.2024				
	e Description	: Stack Gas / Flue Gas Equipment us			ment weed:	
	e ID No.	: AP-FG/24-25/0528	Stack Mon		MICHIEL WINGS	
lame	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVE	B/SME/06 (Ca	L Validity: 04.05.26)	
2002	V-3-5	Paradoep, Odishu.		Param	eters Tested	
	time of sampling	: 21.06.2025 (04:20 P.M. to 04:59 P.M.)	Physical A (General :		
	ing Plan & Method	: RVB/FM/45 & 1S: 11255 (Pars-1,2 & 3)	Temp., Velo	city, Gas flow,	02,002,4:00	
	ing Carried out by sis Started on	: Mr. Partha Prutim Mandid	Chemical z			
	sis Completed on	: 24.06.2025	PM, NH, &	LTF:		
A.	General information abo	: 30.06.2025				
1.	Stack connected to					
2	Emission due to	: DAP + B : Process Ummission				
3.	Material of construction of	stuck M.S.				
4.						
5.		with permanent platform & ladder: Yes.				
B.	Physical characteristics	of stack :				
1.	Height of the stack from gr	ound level : 50 m				
2	Diameter of the stack at sm	mpling point : 2.8 m				
4.	No. of Traverse point	: 30 Nov.				
5.	Height of the sampling poi	nt from GL 35 m				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :				
1.	Fuel used :	2. Fuel consumption :		3.Lead :		
D.	Environmental condition					
1.	Barometric pressure: 752 :		2. Temperat	ture - 34 %		
E.	Results of Physical Parar	meters of Flue Gas :	es rendered	MELDY &		
SI No	Control of the Contro	Test Method	Unit		Results	
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C		60	
2.	Velocity of gas in duct	15: 11255:Past 3:2008	m/sec		15.53	
3.	Quantity of gas flow	15 11253: Part 3:2008	NM ¹ /hr	281444		
E.	Results of gaseous emis-	sion :	1 SOME ARE		281999	
I No	Test Parameters	Test Method	Unit	Disease		
	The state of the s	Test Method	K. Hitt	Results	Norms	
1.	Carbon monoxide	15 13270 - 1992 (By Orian)	95.555	cult to	us per CPCB	
2.	Carbon dioxide	IS 13270 : 1992 (By Oran)	% v/v	< 0.2	Not Specified	
3.	Oxygen	15 13270 : 1992 (By Orian)	96 V/V	0.4	Not Specified	
4.	Particulate Matters		96 x/v	19.2	Nor Specified	
	Total Fluoride	IS 11255 : Part 1 : 1985	mg/Nm3	-62	150 max.	
		18 11255 (Part - 5) : 1990	mg/Nm	2.71	100000000000000000000000000000000000000	
5.	COURT THEFTOE	Methods of Air Sampling & Analysis, 3rd Ed.	1000	(5) (4)	< 10	

Report Verified by

Reviewed & Authorised by

(Dr. R. WARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



o-on-traffic	TO FORM OF THE	200	Issue Date: US 30, 202	PORT		Page 1 of 1
	te No. AP-FG/24-25/05	MIC MIC D	ARADEEP PHOSPHATE LT	D.		
sued to		: Paradeep, C	Micha	-		
ddress		: 5500007609, d	tot 16 08 2024			
our S.O		: Stack Gas / F		Eq	aipment us	ed:
	Rescription	: AF-FG/24-25		Stack Monitori	ng Kit	
umple II	Industry:/ Site	MS MS PAI	LADEEP PHOSPITATE LTD.			alidity: 04.05.26)
artic or	indian's and	Paradeep, Odis	fra.		rameters Tes	ted
ate & ti	me of sampling	:21.06.2025 (11:35 A.M. to 12:11 P.M.)	Physical & Gen	eral .	700 × 700
	Plun & Method	: RVB/FM/45	& 1S: 11255 (Part-1,2 & 3)	Temp., Velocity	Gas Bow, Oy	10070000
ampling	Carried out by	: Mr. Partha Pr	ratim Mandal	Chemical:		
unlysis	Started on	: 24.06.2025		PM, NH, & T		
nalysis	Completed on	: 30.06.2025				
	General information abou	ut stack:	Carlo Carlo Carlo			
	itack connected to		: DAP - C : Process Emmision			
100	imission due to					
	Auterial of construction of	stack	: M.S. : Circular.			
4. 5	shape of stack					
5. 1	Whether stack is provided	of otpok	Printitutii de industr - 1 co.			
	Physical characteristics Teight of the stack from gr	of Stack ;	: 50 m			
1.00	Height of the stack from go Sumpling Point	toland sever	Chimney			
	Sampling Folia Diameter of the stack at sa	moline point	: 2.8 m			
4.	No. of Traverse point		: 30 Nos.			
5.	Height of the sampling por	int from GL	: 35 m			
C.	Analysis / Characteristic	of stack Gas	Flue Gas :		and large en-	
	Fuel used :		Fuel consumption :	3	Load:	
D.	Environmental condition	ns:			O'S TURBON TO	
1	Barometric pressure: 752	mmHg		2. Temperatu	re:36 °C	
E.	Results of Physical Para	meters of Flue	Gas:			
SLNo	Test Parameters		Test Method	Unit	Н	esults
1.	Temperature of emission		IS 11255 : Part 3 : 2008	°C	10	64
2.	Velocity of gas in duct		1S 11255 Part 3:2008	m/sec		6.95
3.	Quantity of gas flow		IS 11255:Part 3:2008	NM ³ /hr	3	03651
E.	Results of gaseous emi	ssion :				
_	Test Parameters		Test Method	Unit	Results	Norms
St No	1650 Parameters					as per CPCB
-	Carbon monoxide	1	S 13270 : 1992 (By Orsir)	% v/v	< 0.2	Not Specifies
1.			S 13270 : 1992 (By Ornat)	% v/v	0.4	Not Specifie
2.	Carbon dioxide		S 13270 : 1992 (By Ornat)	% v/v	19.4	Not Specific
3-	Oxygen		IS 11255 : Part 1 : 1985	mg/Nm3	51	150 max.
4.	Particulate Matters			mg/Nm ³	3.33	< 10
	Total Fluoride		15 11255 (Part - 5) : 1990			22200
5		Methods	of Air Sampling & Analysis, 5rd Fo	mg/Nm ³	165.00	300 max.
5., 6.	Ammonia as NH, Pollution control device		ophenol Method), Method 401	111965.77	Markon.	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

	A NO FOIR SEINE	TEST REP 30 Issue Date: June 30, 2025			Page 1 of
ertifica	ate No. AP-FG/24-25/05	M/S. M/S. PARADEEP PHOSPHATE LTD.			
		Paradeep, Odisha.			
ddres		5500007609, drd. 16.08.2024			
our S.C	F1 4 4614	Stack Gas/Flue Gas	T	Equipmen	t used:
	September 18 months	AP-FCV24-25/0530	Stack Monitor		
ample I		M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05.26)
ame or	industry (Site	Paradeep, Odisha.		Parameters	
total St. A	ime of sumpling	: 21.06.2025 (12:30 P.M. to 01:06 P.M.)	Physical & Ger	neral	
nine ee t	g Plan & Method	: RVB/FM/45 & IS: 11255 (Pan-1,2 & 3)	Temp., Velocity	y, Gas flow, O	5, CO ₇ & CO
ampine ampin	g Carried out by	: Mr. Partha Pratim Mandal	Chemical:		
mationis	Started on	: 24.06.2025	PM, NH, & T	Ŧ	
	Completed on	: 30.06.2025	III//Common too		
	General information abou				
	Stack connected to	: DAP - D			
	Emission due to	: Process Emmision			
	Material of construction of				
	Shape of stack	: Circular			
3.	Whether stack is provided v	vith permanent platform & ladder : Yes.			
В.	Physical characteristics of	f stack :			
1.	Height of the stack from gre	and level : 50 m			
	Diameter of the stack at san				
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling pair	n from GL : 35 m			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		Load :	
D.	Environmental conditions	5:			
	Barometric pressure: 752 r		2. Temperatu	re:36°C	
E	Results of Physical Parar	neters of Flue Gas :			
SLNo	Test Parameters	Test Method	Unit		Results
1.	Temperature of emission	18 11255 : Part 3 : 2008	*C		63
2.	Velocity of gas in duct	2S 11255/Part 3:2008	m/sec		16.45
100	Quantity of gas flow	15 11255:Part 3:2008	NM ³ /hr		289952
3	Results of gaseous emis		1 1525 700		
E.	And the second s	Test Method	Unit	Results	Norms
SINo	Test Parameters	Test Method			as per CPCB
1	Carbon monoxide	(\$ 13270 : 1992 (By Onar)	94 v/v	<0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	96 v/v	0.2	Not Specified
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.6	Not Specified
4.	Particulate Matters	15 11255 : Part 1 : 1985	mg/Nm3	63.5	150 max.
100		18 11255 (Part - 5) : 1990	mg/Nm ²	2.17	< 10
5.	Total Fluoride Ammonia as NH ₁	Methods of Air Sampling & Analysis, 3rd Ed.	mg/vm*	123.07	300 may.

Report Verified by

Reviewed & Authorised by

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.: END OF TEST REPORT :-

* Results relate only to the parameters of the item tested.

Details of pollution control devices attached with the stack: Wet Scrubber

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TEST REPORT

				25		Page 1 of 1
	ste No. AP-FG/24-25/0	531	Issue Date: June 30, 202	TD.		7 2290
sued t	0		PARADEEP PHOSPHATE LT	10,		
ddress		: Paradeep,	Odisha.			
our S.O	L.No.		9, dut. 16.08.2024	Ea	nipment us	ed:
	Description	: Stack Gas		Stack Monitori		Lake
ample I		: AP-FG/24-	ARADEEP PHOSPHATE LTD.	ID No - RVB/SA	#K/06/Cul. V	plidity: 04.05.26)
ame of	Industry / Site				rameters Te	
	200	Puradeep, O	5 (03:50 P.M. to 04:32 P.M.)	Physical & Gen		
tate & ti	ime of sampling	120,00,202	15 & 1S: 11255 (Part-1,2 & 3)	Temp., Velocity	Gas flow, O	CO, & CO
ampling	g Plan & Method	: KVB/ENU	Pratim Mandal	Chemical:		
ampling	g Carried out by	: 24.06.2025		PM & TF		
	Started on	: 30.06.202		**************************************		
unalysis	Completed on Seneral information about		2.			j)
10111		ul black -	- PAP # 1			1
77	stuck connected to		: Process Emmision			
	Emission due to Material of construction o	Cerneli	: M.S.			
		, state	: Circular.			
4.	Shape of stack	with nerman	ent platform & ladder : Yes.			
5.	Physical characteristics	of stack	ette principalities of the same			
В. 1	Height of the stack from g	ground level	: 50 m			
3.	Diameter of the stack at st	ampline noint				
	No. of Traverse point	madinion to	: 30 Nos.			
5	Height of the sampling po	oint from GL	: 35 m			
C.	Analysis / Characteristic	of stack Gas				
I.	Fuel used :		Fuel consumption : —	- 3	1.ond :	
D.	Environmental condition	ns:				
	Barometric pressure: 752			2. Temperatu	re: 36 °C	
E.	Results of Physical Para	ameters of FI	ue Gas :			
SINo			Test Method	Unit	R	esults
	Temperature of emission		IS 11255 : Part 3 : 2008	°C		47
1.	Velocity of gas in duct	20	IS 11255 Part 3:2008	m/sec		5.63
2.			IS 11255 Part 3:2008	NM ³ /br	1	04234
3.	Quantity of gas flow	neion :	2011			
F.	Results of gaseous emi	551011	Test Method	Unit	Results	Norms
SINO	Test Parameters		lest Methon	CAR	31,000,000	as per CPCB
		_	IS 13270 : 1992 (By Orsat)	56.979	<0.2	Not Specified
1.	Carbon monoxide			% v/v	0.2	Not Specific
2	Carbon dioxide		IS 13270 = 1992 (By Chraut)		19.8	Not Specific
3.	Oxygen		IS 13270 = 1992 (By Orsit)	96.070		100000
4.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	35	150 mm.
11.50	Total Fluoride		(S 11255 (Part - 5): 1990	mg/Nm ²	3.58	20 max.
5.	A STREET STREET STREET					

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



ertifica	ate No. AP-FG/24-25/05	532	Issue Date: Sime 30, 262	SORI		Page 1 of 1
ssued t		: M/S, M/S, P/	ARADEEP PHOSPHATE LT	D.		
ddres		: Paradeep, C				
Cour S.C	The state of the s	: 5500007609, 6	ltd. 16.08.2024			
Sample I	Description	: Stack Gas / F	Tue Gas	17.	quipment	ised:
sample I	D No.	: AP-FG/24-25		Stack Monitor		/alidity: 04.05.26)
Sume of	Industry / Site		ADEEP PHOSPHATE LTD.		Parameters 1	Address of the contract of the
		Paradeep, Odisi		Physical & Gen		ENTER.
	ime of sampling		2:15 P.M. to 12:57 P.M.)	Temp., Velocity		rm a m
Sampling	g Plan & Method	: RVB/FM/45	& IS: 11255 (Part-1,2 & 3)	Chemical :	Committee o	100100
Samplin	g Carried out by	: Mr. Partha Pr	atim Mindal	PM & TF		
	Started on	: 24.06.2025		PALCE IT		
Analysis	s Completed on	: 30.06.2025				
	General information abou	it stack :	: PAP#2			
40.00	Stack connected to		: Process Emmision			
	Emission due to	and the	: M.S.			
	Material of construction of	Stack.	: Orcular.			
4,	Shape of stack	college as a second construction of	- 10 10 10 10 10 10 10 10 10 10 10 10 10			
5.	Whether stack is provided	with permanent	platform & fadder , s.cs.			
	Physical characteristics		: 50 m			
	TATAL					
	Triumcted of the inner at certifining prince					
	No. of Traverse point Height of the sampling poi	int from CII	: 45 m			
5. C.	Analysis / Characteristic	of stack Gas /				
	Fuel used :-	or stack sest	2. Fuel consumption :	3	Load:-	
	Environmental condition	s:				
	Barometric pressure: 752			2. Temperatu	re:34 °C	
E.	Results of Physical Para	moters of Flue	Gas :			
SI No	The second secon	T T	Test Method	Unit		Results
-	Temperature of emission		S 11255 : Part 3 : 2008	°C		55
1			15 11255:Part 3:2008	m/sec		13.38
2.	Velocity of gas in duct		IS 11255 Part 3:2008	NM ³ /hr		33014
3.	Quantity of gas flow	Contract of	18 11235 Fait 5:2006	North T		33014
F.	Results of gaseous emis	ssion	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 12-54	Results	Norms
SLNo	Test Parameters		Test Method	Unit	Results	as per CPCB
1.	Carbon monoxide	28	13270 : 1992 (By Orsai)	%rv/v	< 0.2	Not Specified
2.	Carbon dioxide	19	13270 : 1992 (By Orsat) -	36 v/v	0.2	Not Specified
200	Oxygen	100	13270 : 1992 (By Orsat)	96 v/v	19.4	Not Specified
3.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	33.2	150 max.
4.	The second secon		S 11255 (Part - 5) : 1990	mu/Nm²	2.84	20 max.
5.	Total Fluoride		2 11422 (Fall - 2) (1990	10000000000	W-10-1	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007 TEST REPORT



TC-12347

		issue Date: June 30, 20	25	Page 1 of 1
	ste No. AP-FG/24-25/05	: M/S. M/S. PARADEEP PHOSPHATE L	TD.	
sued t		Paradeep, Odisha.	mess	
ddress		: 5500007609, did. 16.08.2024		
our S.O	Description	: Stack Gas / Flue Gas	Equip	ment used:
ample I. ample I		: AP-FG/24-25/0533	Stack Monitoring !	Sit
umpie ti	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		6 (Cal. Validity: 04-05.26
mine or	111111111111111111111111111111111111111	Paradeep, Odisha		eters Texted
inte Acti	ime of sampling	: 22.06.2025 (03:30 P.M. to 04:06 P.M.)	Physical & General	
amolins	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		flow, O ₂ , CO ₂ & CO
ampling	g Carried out by	: Mr. Partha Pratim Mandal	Chemical:	
nalysis	Started on	: 24.06.2025	PM	
mulvsis	Completed on	: 30.06.2025		
	Seneral information abou	it stack :		
	Stack connected to	: Zypmite - 1 : Process Emmision		
	Emission due to			
	Material of construction of	stack : M.S. : Circular.		
4. 5	Shape of stack			
5. 1	Whether stack is provided	with permanent platform & ladder: Yes.		
B. 1	Physical characteristics	or stack:		
1. 1	Height of the stack from g	2001110		
	Diameter of the stack at so	: 12 Nos.		
4.	No. of Traverse point	of stack Gas / Flue Gas ;		
	Fuel used :	2. Fuel consumption : ~	3.Lo	KI :
	Environmental condition			
3.50	Barometric pressure: 752		2, Temperature :	32 °C
1.	Results of Physical Para	ematers of Flue Gas :	A CONTRACTOR	
	Test Parameters	Test Method	Unit	Results
SINo	And the second s		*C	51
1.	Temperature of emission		m/soc	15.05
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	W-555-	40523
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM ² /hr	40323
F.	Results of gaseous emi	ssion:		Results
Si No	Test Parameters	Test Method	Unit	Results
L	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% V/V	< 0.2
2.	Carbon dioxide	1S 13270 : 1992 (By Orsat)	% 5/6	0.2
		IS 13270 : 1992 (By Oreat)	% v/v	19.6
3	Oxygen Particulate Matters	18 11255 : Part I : 1985	mg/Nm3	31
4		100 F 1 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TC-12347

		TEST REP 34 Issue Date: June 30, 20	ORT	Page 1 of
	te No. AP-FG/24-25/05	: M/S. M/S. PARADEEP PHOSPHATE L	TD	
ssued to			ALTER.	
Address		: Paradeep, Odisha. : 5500007609, ad. 16.08.2024		
our S.O		: Stack Gas / Flue Gas	Equip	ment used:
ample D	Pescription	: AP-FG/24-25/0534	Stack Monitoring Ki	1
Sample II	D No.	: M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/06	(Cal. Validity: 04.05.26)
vante of	Industry / Site	Paradeep, Odisha.		eters Tested
	ime of sampling	: 22.06.2025 (04:15 P.M. to 04:51 P.M.)	Physical & General	TO THE WORLD
Jaco et u	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas 1	low, D ₂ , CO ₂ & CO
Sampiini	Carried out by	: Mr. Partha Pratim Mandal	Chemical:	
Analucie	Started on	: 24.06.2025	PM	
	Completed on	: 30.06.2025		
Δ 6	Seneral information abou	it stack :		
I. S	Stack connected to	: Zypmite - 2		
	Emission due to	: Process Emmission		
3. 1	Material of construction of	istack : M.S.		
14 4	Shows of stuck	: Circulur.		
5. 1	Whether stack is provided	with permanent platform & ladder : Yes.		
B. I	Physical characteristics	of stack:		
1.	Height of the stack from g	round level : 30 m		
3.	Diameter of the stack at si	impling point : 0.85 m		
4.	No. of Traverse point	: 12 Nos.		
C.	Analysis / Characteristic	of stack Gas / Flue Gas :	3.Loo	7
	Fuel used :	2. Fuel consumption:	W.10000	
	Environmental condition		2. Temperature : 3	2.9/1
11.	Barometric pressure: 752	mmHg	2. remperature -	
E.	Results of Physical Para	imeters of Flue Gas :	Unit	Results
Si No	Test Parameters	Test Method		53
1.	Temperature of emission	IS 11255 : Part 3 : 2008	"C	
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	15.98
		IS 11255 : Part 3 : 2008	NM ⁷ /hr	28682
3.	Quantity of gas flow			
F.	Results of gaseous em	ssion;	Unit	Results
SLNo	Test Parameters	Test Method	Cun	
	Carbon monoxide	IS 13270 : 1992 (By Orsin)	% v/v	< 0.2
T		IS 13270 : 1992 (By Onsat)	% v/v	0.4
1 -			0% v/v	19.6
2.	Carbon dioxide	19 13250 - 1992 HV ORUEL		
13.7	Oxygen Particulate Matters	18 13270 : 1992 (By Orant) 18 11255 : Part 1 : 1985	mg/Nm3	35.0

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Technical Manager

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CIN: U51109WB1931PTC007007



TC-12347

and of the	ate No. AP-FG/24-25/05		REPORT 9 30, 2025	Page 1 of 1
ssued t		: M/S. M/S. PARADEEP PHOSP	HATE LTD.	
		: Paradeep, Odisha.		
Address Your S.O.		: 5500007609, dtd. 16.08.2024		
	Description	: Stack Gas / Flue Gas	Eq	uipment used:
Sample I		: AP-FG/24-25/0535	Stack Monitoria	ig.Kit
	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE		K/06 (Cal. Validity: 04.05.26
Marine Or	succession 2 il conso	Paradeep, Odisha.	Par	ameters Tested
Inte & t	ime of sampling	: 22.06.2025 (05:00 P.M. to 05:32 P	P.M.) Physical & Gene	ral :
nitami	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2	2 & 3) Temp_Velocity,	Gas flow, O2, CO2 & CO
Samplin	g Carried out by	: Mr. Partha Pratim Mandal	Chemical 2	
	Started on	: 24,06.2025	PM	
Analysis	Completed on	: 30.06,2025		
A. (General information abou	it stack :		
1. 5	Stack, connected to	: Zypmite - 3		
	Emission due to	: Process Emmision	on	
	Material of construction of	stack : M.S.		
4.	Shape of stack	: Circular.	N	
5.	Whether stack is provided	with permanent platform & ladder:	Y esc	
B.	Physical characteristics	of stack:		
1_	Height of the stack from g	round level : 30 m		
	Diameter of the stack at si	umpling point : 0.5 m : 8 Nos.		
4.	No. of Traverse point			
		of stack Gas / Flue Gas : 2. Fuel consum	etion : 3.	Load :
	Fuel used : — Environmental condition		parties -	
			2. Temperatur	e : 30 °C
	Barometric pressure: 752	mming	2. Pumperatur	
	Results of Physical Para		Unit	Results
SINO	Test Parameters	Test Method		33
1.	Temperature of emission	IS 11255 : Part 3 : 2008		
2.	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec	3.74
3.	Quantity of gas flow	IS 11255 Part 3 2008	NM ³ /hr	2532
F.	Results of gaseous emi-			
special district		Test Method	Unit	Results
SINo	Test Parameters	Test Metast		
1.	Carbon monoxide	18 13270 : 1992 (By On	at) % v/v	< 0.2
2.	Carbon dioxide	15 13270 : 1992 (By On	at) % v/v	0.2
		IS 13270 : 1992 (By On	224	19.2
3.	Oxygen	18 11255 : Part 1 : 198	2.6 12	28
	Particulate Matters	15:11222:1/81 1:176	A HARCEMONE	

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST DEDODT

			TEST REP	ORI				
Cert	ificate No. AP-AAQ/25-	26/PPL	/01	Issue Date	: July 26, 2025	Page 1 of 1		
Addı	ed to ress r Ref. No.	: Para	PARADEEP PHOSPHATE LTD. deep, Odisha 0007609, dtd. 16.08.2024					
Sample Description : Ambien Sample ID No. : AP-AAI Name of Industry / Site : M/S. P/ Paradi		Ambie AP-AA M/S. P Parac	bient Air AAQ/25-26/PPL/01 S. PARADEEP PHOSPHATE LTD. ID radeep, Odisha R.		Equipment used: Antibient Fine Dust Sampler ID No.: RVBrAFDS/PM2.5/20, Cal. Valid upto: 20.01.26 Respendie Dust Sampler ID No.: RVBrROS/APIM460/NL/05, Cal. Valid upto: 26.96.26			
Date Dura Sam San	& Time of sampling ation of Sampling pling Plan : npling Carried out by thod of Sampling	: 22.07. : 24Hrs : RVB/F : Mr. 5	2025 (11:10 A.M.)-23:07:2025 (11:10 A.M.) M/45	Environmental conditions Weather Condition: Clear Temperature : Max: 34°C & Mirc. 27.0°C Barometric Presure : 748 mmHg				
Analysis Started on : 24.07			24.07.2025 26.07.2025		Parameters Tested: PM _{2,5} , PM ₁₀ , SO ₂ , NO ₃ , O ₅ , NH, CO, Pb, Ni, As, C ₈ H ₈ , BaP			
SI. No.	T FINDINGS:- Parameters		Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE 8 F Notification New Delhi, 16th November 2009		
1.	PM _{2.5} (Size s 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	44.2	60 (24 Hourly.)		
2.	PM ₁₀ (Size ≤ 10µm)		IS 5182 (Part - 23): 2006	µg/m ³	51.0	100 (24 Hourly.)		
3.	Sulphur Dioxide as S	O ₂	IS:5182 (Part - 2): 2001	µg/m ³	5.36	80 (24 Hourly.)		
4.	Nitrogen Dioxide as	NO ₂	IS 5182 (Part - 6): 2006	µg/m³	14.57	80 (24 Hourly.)		
5.	Ozone as O ₃		IS 5182 (Part - 9) : 1974	µg/m³	18.00	180 (1 Hourly.)		
6.	Ammonia as NH ₃		SOP No.: RVB/SOP/01/10 (indephenal Method) Issue No. 04, Issue Date: 10.01.2018	µg/m²	22.01	400 (24 Hourly)		
7,	Carbon Monoxide as	co	(S : S182 (Part - 10), 1999 Non Emperative Infra-Rad (NOIR) spectroscopy	mg/m ³	0.762	04 (1 Hourly.)		

Minimum detection Limit. Nickell, 5 rig/m³, Arsenic: 0.25 ng/m³, Benzarie: 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m²

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Lead as Pb

Nickel as Ni

10. Arsenic as As

11 Benzene as CoHo

12. Benzo (a) Pyrene

Reviewed & Authorised by

0.080

<5.0

< 0.25

<1.0

< 0.5

µg/m°

ng/m²

ng/m²

µg/m"

ng/m

1.0 (24 Hourly.)

20

6.0

5.0

1.0

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

IS 5182 (Part - 22): 2004

SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04.

tesue Date: 10.01.2018 SOP No.: RV8/SOP(01/16 (AAS Method) Issue No. 04,

New Date: 10.01.2018

IS 5182 (Plant - 11): 2006.

IS 5182 (Part - 12); 2004,

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CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 1 Issue Date : July 26, 2025 Certificate No. AP-AAQ/25-26/PPL/02 : M/S. PARADEEP PHOSPHATE LTD. Issued to Address Paradeep, Odisha 5500007609, dtd. 16.08.2024 Your Ref. No. Equipment used: Ambient Air Sample Description: Ambient Fine Dust Sampler Sample ID No. : AP-AAQ/25-25/PPL/02 ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20 01.26 M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site Paradeep, Odisha Resperible Dust Sampler ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26 : Near AAQMS # 02 Sampling Location

: 21.07.2025 (10:50 A.M.)-22:07.2025 (10:50 A.M.) Date & Time of sampling

Duration of Sampling Sampling Plan : RVB/FM/45 Sampling Carried out by : Mr.S. Roy

: As per CPCB guidelines (Volume-I) Method of Sampling

24.07.2025 Analysis Started on : 26.07.2025 Analysis Completed on

Environmental conditions

Weather Condition: Clear

Temperature: Maic 34.5°C & Min: 26.5°C

Barometric Presure: 748 mmHg

Parameters Tested: PM_{2.5}, PM₁₀, SO₂, NO₂, O₃, NH₁,

CO. Pb. Ni. As, C.H. BaP

TEST EINDINGS

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 18th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	36.3	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	48.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m ³	6.61	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m ^l	12.92	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	15.02	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV9/SGP/01/10 (Indephend Method) Issue No. 04, Issue Date: 10.01/2018	µg/m³	19.62	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: ST62 Part - 10], 1999 Non Dispersive Infra-Red (NDIR) apertroscopy	mg/m³	0.820	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.065	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10:01:2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RV6/SOP/01/15 (AAE Method) Issue No. 04. Issue Date: 10:01.2018	ng/m ³	<0.25	6.0
11	Benzene as C ₆ H ₀	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit. Nickel 5 ng/m³. Arsenic: 0.25 ng/m³. Berszehe: 1 µg/m³ & Berszola:Pyrene: 0.5 ng/m

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-26/PPL/03 Issue Date: July 26, 2025 Page 1 of 1 Issued to : M/S. PARADEEP PHOSPHATE LTD. Address : Paradeep, Odisha 5500007609, dtd. 16.08.2024 Your Ref. No. Sample Description Equipment used: Ambient Air Sample ID No. AP-AAC/25-26/PPL/03 Ambient Fine Dust Sampler M/S. PARADEEP PHOSPHATE LTD. ID No.: RVB/AFDS:PM2.5/20, Cal. Valid upto: 20.01.26 Name of Industry / Site Paradeep, Odisha Resperible Dust Sampler ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26 Near AAQMS # 03 Sampling Location Date & Time of sampling : 19.07.2025 (10:00 A.M.)-20.07.2025 (10:00 A.M.) Environmental conditions Duration of Sampling Weather Condition: Clear Temperature: Max: 34.0°C & Min: 26.5°C Sampling Plan ; RVB/FM/45 Sampling Carried out by : Mr. S. Roy Barometric Presure : 748 mmHq Method of Sampling As per CPCB guidelines (Volume-I) Parameters Tested: PM25, PM15, SO2, NO2, O3, NH3, Analysis Started on : 24.07.2025 CO, Pb, Ni, As, C₄H_e, BaP : 26.07.2025 Analysis Completed on

TEST FINDINGS:

Si. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size s 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	32.1	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m³	43.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.14	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	ha/m ₃	14.10	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	15.71	180 (1 Hourly.)
6.	Ammonia as NH ₃	50P No.: RVSISOPIOV10 (indephenal Method) filmus No. 04, Issue Cate: 10-01-2016	µg/m³	18.65	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: \$182 (Part - 10), 1999 Non Dispersive Info-Red (NDR) spectroscopy	mg/m ²	0.751	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.750	1.0 (24 Hourly.)
9.	Nickel as Ni	SCP No.: RVB-SDP101/15 (AAS Method) lissue No.: 04, tissue Date: 10.01.2018	ng/m ³	<5.0	20
10	Arsenic as As	SOP No.: RVB:SOP/01/16 (AAS Method) Insue No. 04, Issue Date: 10.01.2018	ng/m³	< 0.25	6.0
11.	Benzene as C ₅ H ₅	IS 5182 (Part - 11): 2006,	hã/m _y	1.06	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Amenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzola)Pyrene: 0.5 ng/m²

Report Verified by

Mayen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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ANALYTICAL CONSULTING & TECHNICAL CHEMISTS

(AN ISO 9001:2015 & ISO 45001: 2018 CERTIFIED COMPANY)

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Phone: (033) 4044-3380 / 3381 / 3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Certificate No. AP-AAQ/25-26/PPL/04		Issue Date : July 26, 2025	Page 1 of 1
Issued to	: M/S. PARADEEP PHOSPHATE LTD.		
Address	: Paradeep, Odisha		
Your Ref. No.	5500007609, dtd. 16.08.2024	45	
Sample Description	: Ambient Air	Equipment used:	
Sample ID No.	AP-AAC/25-26/PPL/04	Ambient Fine Dust Sampler	
Name of Industry / Site	: M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha	ID No.: RVB/AFDS/PM2.5/20, Cell Valid upto Respendie Dust Sampler	20.01.26
Sampling Location	Near AAQMS # 04	ID No.: RVB/RDS/APM450/NL/05, Cal. Valid	upto: 26.06.26
Date & Time of sampling	20.07 2025 (10:30 A.M.)-21.07 2025 (10:30 A.M.)	Environmental condition	ons
Duration of Sampling	: 24Hrs.	Weather Condition: Clear	
Sampling Plan :	RVB/FM/45	Temperature: Max: 35.0°C & Min: 27.0°C	
Sampling Carried out by	: Mr.S. Roy	Barometric Presure : 748 mmHg	
Method of Sampling	: As per CPCB guidelines (Volume-I)		
Analysis Started on	24.07.2025	Parameters Tested: PM25, PM16, SO	, NO ₂ , O ₃ , NH ₃ ,

TEST FINDINGS:-

Analysis Completed on

: 26.07.2025

SL No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.9} (Size ≤ 2.5µm)	USEPA 1997s,40 CFR Part 50, Appendix L.	µg/m³	34.6	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	44.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	4.99	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	16.45	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m [®]	11.99	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV9/SOP/01/12 (Indophenol Mothod) Issue- No. 04, Issue Date: 10.01.2016	µg/m³	19.49	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Hori Disparates Info-Red (NOIR) spectroscopy	mg/m ³	0.879	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	hā,w,	0.800	1.0 (24 Hourly.)
9.	Nickel as Ni	SCP No.: RVB/SORO1/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2019	ng/m ³	<5.0	20
10	Arsenic as As	SCP No: AVE/SOP/01/16 (AAS Method) Issue No. 04. Issue Date: 10:01.2018	uð/m ₃	<0.25	6.0
11	Benzene as C ₆ H ₈	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 rigim², Arsenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzolaj Pyrene: 0.5 ng/m

Report Verified by

Glayer

Reviewed & Authorised by

CO, Pb, Ni, As, CoHe, BaP

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmall.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



TEST REPORT

Certific	ate No. AP-FG/24-25/P			Page 1 of 1		
ssued t	to	: M/S. M/S, PARADEEP PHOSPHATE L	TD.			
Address		: Paradeep, Odisha.				
our S.C		: 5500007609, dtd. 16.08.2024				
Sample Description		: Stack Gas / Flue Gas		Equipment used:		
Sample I		: AP-FG/24-25/PPL/01	Stack Monitoring Kit			
Sume of	Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB/SMK/04 (Cal. Validity: 04 05:26			
	MONTH SMALLS DISSANSSIS	Paradeep, Odisha.	Parameters Tested Physical & General			
Date & time of sampling		: 22,07,2025 (03:00 P.M. to 03:42 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas flow, O ₂ , CO ₂ & CO Chemical: SO ₂ & Acid Mist			
Sampling Plan & Method		: Mr. S. Banerjee				
Sampling Carried out by Analysis Started on		: 28.07.2025				
	Completed on	: 30.07.2025	DOMEST STREET, STREET,			
	General information abou					
	Stack connected to	: SAP - A				
	Emission due to	: Process Emmisian				
3. 1	Material of construction of	stuck : M.S.				
	Shape of stack	: Circular.				
		with permanent platform & ladder: Yes.				
	Physical characteristics					
	Height of the stack from g					
	Sumeter of the stack at su					
	No. of Traverse point	: 32 Nos.				
	leight of the sampling po					
	Fuel used :	of stack Gas / Flue Gas : 2. Fuel consumption :	310	od :		
	Environmental condition		244	AND .		
	Barometrie pressure : 748		2. Temperature :	24 %		
	Results of Physical Para		z. remperature.	24. 0		
SINO	Test Parameters	Test Method	Unit	Results		
	Temperature of emission	IS 11255 : Part 3 : 2008	*C	60		
00.0		IS 11255:Part 3:2008	m/sec	14.24		
	Velocity of gas in duct	NA CLEANING BANKS	D.W. Achie			
	Quantity of gas flow	IS 11255-Part 3:2008	NM³/fir	243452		
-	Results of gaseous emis		110000000000000000000000000000000000000	441 477		
SINo	Test Parameters	Test Method	Unit	Results		
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³	699.74		
2.	Carbon monoxide	IS 13270 : 1992 (By Omat)	% v/v	<0.2		
3.	Carbon diexide	JS 13270 : 1992 (By Orsin)	76 V/V	0.2		
	Oxygen	IS 13270 : 1992 (By Oran)	56 V/V	19.8		
		SOPNe: RVI/SOP/01/20,	mg/Nm	27.12		
5.	Acid Mist	Tesse No.: 04, Issue Date: 10.01.2018				

Report Verified by

Gayen

Reviewed &/Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT >

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TEST REPORT

Certificate No. AP-FG/24-28 Issued to		5/PPL/02 Issue Date: July 30, 2025 Page 1 of 1 : M/S, M/S, PARADEEP PHOSPHATE LTD.					
Address		Paradeep, Odisha.					
Your S	KO. No.	- 5500007609, dtd. 16.08.2024					
Sample Description		: Stack Gas / Flue Gas	Equ	Equipment used:			
	t ID No.	: AP-FG/24-25/PPL/02		Stack Monitoring Kit			
Name of Industry / Site		M/S. M/S. PARADEEP PHOSPHATE LTI	The second secon	ID No.: RVB/SMK/04 (Cal. Validity: 04.05.2)			
		Paradeep, Odistra.	798869	Parameters Tested Physical & General: Temp., Velocity, Gas flow, O ₂ , CO ₂ & CO Chemical: SO ₂ & Acid Mist			
Date & time of sampling		: 22.07.2025 (04:00 P.M. to 04:45 P.M.					
Sampling Plan & Method		: RVB/FM/45 & IS: 11255 (Part-1,2 &					
Sampling Carried out by		: Mr.S. Bancrjee : 28.07.2025					
Analysis Started on Analysis Completed on		: 30.07.2025	SOLOC ACID MIST				
I.	Stack connected to	: SAP - 11					
2.	Emission due to	: Process Emmision					
3.	Material of construction of						
4.	Shape of stack	; Circular.					
5	Whether stack is provided	with permanent platform & ladder : Yes.					
B.	Physical characteristics						
L	Height of the stack from g						
3,							
4.	No, of Traverse point	; 32 Nos.					
5,	Height of the sampling po-						
C.	Analysis / Characteristic						
D.	Fuel used : Environmental condition	2. Fuel consumption	5.Li	nd:			
			2.7	2190			
1.	Barometric pressure : 748		2. Temperature :	34 °C			
E.	Results of Physical Para		1				
SINo		Test Method	Unit	Results			
I_{α}	Temperature of emission	IS 11255 : Part 3 : 2008	"C	62			
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	13.65			
3.	Quantity of gas flow	IS 13255:Part 3:2008	NM ³ /hr	220901			
F.	Results of gaseous emis	sion:					
SINe	Test Parameters	Test Method	Unit	Results			
1.	Sulphur diexide	IS 11255 : Part 2 : 1985	mg/Nm ²	657.34			
2.	Carbon monoxide	1S 13270 : 1992 (By Orsat)	% v/v	<0.2			
3.	Carbon dioxide	1S 13270 : 1992 (By Omit)	96 v/v	0.2			
4.	Oxygen	18 13270 : 1992 (By Ossat)	96 v/v	19.8			
	Acid Mist	50P No. RVB/S0P/01/20, Issue No. 04, Jesue Date: 10/01/2019	mg/Nm ³	25.32			
5.			1111077791111				

Report Verified by

@fayer

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

	cate No. AP-FG/24-25/		Issue Date: July 30, 20		Page 1 of	
ssued			PARADEEP PHOSPHATE L	TD,		
Addre		: Paradeep,				
	O. No. Description		P. dtd. 16.08.2024		Barton Contract Contract	
	4 - 1 (A. C.	: Stack Gas / Flue Gas		Equipment used:		
Sample ID No. Name of Industry / Site		: AP-FG/24-25/PPL/03		Stack Monitoring Kit ID No. RVB/SMK/04 (Cal. Validity: 04.05.2)		
value of maustry (Site		: M/S. M/S. PARADEEP PHOSPHATE LTD; Paradeep, Odisha		Purameters Tested		
Sate &	time of sampling	: 19.07.2025 (12:05 P.M. to 12:43 P.M.)		Physical & General		
Sampling Plan & Method		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		Temp., Velocity, Gas flow, O2, CO2 & CO		
Sampling Carried out by		: Mr. S. Bancrice		Chemical: SOs & Acid Mist		
Analysis Started on		: 28.07.2025				
Analysis Completed on		: 30.07.2025		The state of the s		
A.	General information about	ut stack:				
L	Boiler connected to		; SAP - C			
2.	Emission due to		: Process Emission			
3,	Material of construction o	f stack	; M.S.			
4.	Shape of stack	: Circular.				
5.			nt platform & ladder : Yes.			
В.	Physical characteristics		1.00			
1.	Height of the stack from g		: 120 m			
3.	Diameter of the stack at so No. of Traverse point	mpting point	; 2.7 m ; 30 Nos.			
5.						
C.	Height of the sampling po Analysis / Characteristic	of stack Gas I	: 35 m			
L	Fuel used :	or stack das i	2. Fuel consumption :	3.19	and :	
D.	Environmental condition	S:	a consumption	5.00	ing -	
1	Barometric pressure: 748	economic contracts		2. Temperature :	22.50	
E.	Results of Physical Para		Gas:	a. remperature.	32.0	
SINo	Test Parameters	1	Test Method	Unit	Results	
I.	Temperature of emission	-	IS 11255 : Part 3 : 2008			
				"C	76	
2.	Velocity of gas in duct		1S 11255;Part 3:2008	m/sec	6.52	
3.	Quantity of gas flow		IS 11255:Part 3:2008	NM ³ /hr	110019	
F.	Results of gaseous emis-	sion :				
SI No	Test Parameters		Test Method	Unit	Results	
1.	Sulphur dioxide		IS 11255 : Part 2 : 1985	mg/Nm ³	567.64	
2	Carbon monoxide	18	13270 : 1992 (By Onat)	96.V/V	<0.2	
3	Carbon dioxide		13270 : 1992 (By Ornat)	96 V/V	0.2	
4.:	Oxygen		13270 : 1992 (By Orsat)	56 v/v	19.6	
5 Acid Mist			5OP No.: RVII/SOP/01/30.	1-000		
			No.: 04, Isma Dine: 10.01-2019	mg/Nm3	22.48	

Report Verified by

Clayer

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

	cate No. AP-FG/24-25/P	PL/04 Issue Date: July 30, 202	5		Page 1 of	
ssued		: M/S. M/S. PARADEEP PHOSPHATE LT			1000101	
Address		Paradeep, Odisha.				
	O. No.	5500007609, dtd. 16.08.2024				
Sample	Description	: Stack: Gas / Flue Gas		Equipment	used:	
	ID No.	: AP+FG/24-25/PPL/04	Stack Monit	oring Kit		
lame o	f Industry / Site	: M/S, M/S, PARADEEP PHOSPHATE LTD.			Validity: 04.05.26	
		Paradeep, Odisha.	9	Parameters:	Tested	
	time of sampling	: 20.07.2025 (11:50 A.M. to 12:24 P.M.)	Physical & G	eneral :		
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		ity, Cas flow.	0,00,800	
	ng Carried out by	: Mr.S. Bancrice	Chemical:			
	s Started on	: 24.07.2025	PM, NH, &	TE		
	s Completed on	: 30.07.2025				
	General information abou					
	Stack connected to	: DAP - A				
	Emission due to	: Process Emmision				
	Material of construction of					
	Shape of stack	: Circular.				
5.	Whether stack is provided v	with permanent platform & ladder; Yes.				
	Physical characteristics of					
	Diameter of the stack at sar					
	No, of Traverse point					
2	Height of the sampling poir	st from GI. : 35 m				
	Analysis / Characteristic					
	Environmental conditions	2. Fuel consumption :		3.Loud :		
			0707			
	Barométric pressure : 748 r		2. Temperat	are: 34 °C		
	Results of Physical Paran					
SI No	Test Parameters	Test Method	Unit	1	tesults	
1_	Temperature of emission	18 11255 Part 3 2008	°C		58	
2_	Velocity of gas in duct	IS 11255.Part 3:2008	m/sec		16.69	
3	Quantity of gas flow	(S 11255:Part 3:200%	NM ³ /hr	2	99894	
E	Results of gaseous emiss	sion :				
SI No	Test Parameters	Test Method	Unit	Results	Norms	
1.	Carbon monoxide	18 13278 : 1992 (By Oryat)	% v/v	< 0.2	as per CPCB Not Specified	
2.	Carbon dioxide	IS 13278 : 1992 (By Oreat)	% v/v	0.2	Not Specified	
3.					A CANADA STATE OF COLUMN	
	Oxygen	IS 13270 : 1992 (By Ornat)	2 v/v	19.2	Not Specified	
4.	Particulate Matters	IS 11255 Part 1 1985	mg/Nm3	46.45	150 mux.	
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm ³	1.55	< 10	
6.	Ammonia as NH ₂	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm ³	134.00	300 max.	

Report Verified by

Clayen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007





TEST REPORT

	icate No. AP-FG/24-25/F	PPL/05	Issue Date: July 30, 202	5		Page 1 of
ssue	d to	: M/S, M/S	PARADEEP PHOSPHATE L'			1090101
Addre	55	Paradeep				
Your S	.O. No.		9, dtd. 16.08-2024			
Sample	Description:	: Stack Gar			Equipment	used:
	ID No.	: AP-FG/24	-25/PPL/05	Stack Monit		and the same of th
Same i	of Industry / Site		PARADEEP PHOSPHATE LTD.			Validity: 04.05.2
		Paradeep, C	disha.	-	Parameters	And the last of th
hate &	time of sampling.	20.07.202	5 (12:35 P.M. to 01:09 P.M.)	Physical & G		
ampli	ng Plan & Method	: RVB/FM/	45 & 15: 11255 (Pan-1,2 & 3)	Temp., Veloc	ity, Gas flow,	O2, CO2 & CO
	ng Carried out by	: Mr. S. Bar	nerjee	Chemical:		
	is Started on	: 28.07.202	5	PM, NH, &	TF	
knalys	is Completed on	: 30:07:202	S:	North Choese		
A.	General information abou	ut stack :		-		
1	Stack connected to		: DAP - B			
2.	Emission due to		: Process Emmision			
3.	Material of construction of	stack	: M.S.			
4.	Shape of stack		: Circular.			
5.	Whether stack is provided	with permane	nt platform & ladder : Yes.			
В.	Physical characteristics	of stack :				
1.	Height of the stack from gr	round level	= 50 m			
3.						
4.	I. No. of Traverse point : 32 Nos.					
5	Height of the sampling poi	nt from GL	; 35 m			
C.	Analysis / Characteristic	of stack Gas	/ Flue Gas :			
.1.	Fuel used 1		2. Fuel consumption :		3.Lond:	
D.	Environmental conditions	S.				
1.	Barometric pressure: 748	mmHg		2. Temperati	ure - 34 °C	
E.	Results of Physical Parar	meters of Flu	e Gas :	a rempetiti	HARVEN TO STATE OF THE STATE OF	
SI No		T	Test Method	Unit	3	Results
1.	Temperature of emission		IS 11255 : Part 3 : 2008	40		62
2.	Velocity of gas in duct	1	IS 11255 Part 3:2008	- 77 to a		17.06
3.	Quantity of gas flow		IS 11255 Part 3-2008	m/sec		
_	Results of gaseous emiss	State V	13 11223 PM1 3 2008	NM ³ /hr		199846
E,	The second secon	sion:				
SI No	Test Parameters		Test Method	Unit	Results	Norms
						as per CPCB
L	Carbon monoxide	1	S 13270 : 1992 (By Orsat)	% v/v	<0.2	Not Specified
2.	Carbon dioxide	3	5 13270 : 1992 (By Orant)	16 v/v	0.2	Not Specified
3.	Oxygen	1	S 13270 : 1992 (By Circut)	26 m/s	19.6	Not Specified
4.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	55.08	150 max.
5.	Total Fluoride		IS 11255 (Part - 5) : 1990	0.0000000000000000000000000000000000000		0.0000000000000000000000000000000000000
	- Court I Harrings			mg/Nm*	1.40	< 10
	Ammonia as NH,		of Air Sampling & Analysis, 3rd Ed.	mg/Nm ³	122.00	300 max.
6.		1.771-74	ophenol Method), Method 401	100000000000000000000000000000000000000	2-4-7-7-1	10 17 St. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Report Verified by

Glayen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

ssued		PL/06 Issue Date: July 30, 202			Page 1 of
	to	: M/S. M/S. PARADEEP PHOSPHATE LT			
Addre	55	: Paradeep, Odisha.			
our S	O. No.	-5500007609, dtd. 16.08.2024			
sample	Description	: Stack Gas / Flue Gas		Equipment	used:
	ID No.	: AP-FG/24-25/PPL/06	Stack Monit		
vanie o	of Industry / Site	-M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No.: RVB	SME/04 (Ca	Validity: 04.05.2r
		Paradeep, Odishia.		Parameters	
Inte &	time of sampling	: 20.07.2025 (03:25 P.M. to 03:57 P.M.)	Physical & G		37.000-
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Veloc	ity, Gus flow,	0, 00, 8.00
	ng Carried out by	: Mr.S. Banerjee	Chemical :		
	is Started on	: 28.07.2025	PM, NH ₂ &	TF	
	is Completed on	: 30.07.2025	2.00		
	General information abou	t stack:			
	Stack connected to	: DAP - C			
	Emission due to	: Process Emmission			
	Material of construction of:	stack : M.S.			
	Shape of stack	: Circular.			
5.	Whether stack is provided v	vith permanent platform & ladder: Yes.			
В.	Physical characteristics of	f stack :			
	Height of the stack from gre	and level : 50 m			
	Sampling Point	= Chimney			
	Diameter of the stack at san	apling point : 2.8 m			
	No. of Traverse point	: 32 Nos.			
	Height of the sampling poin				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
1.	Fuel used :	2. Fuel consumption :		Load :	
D.	Environmental conditions	Li			
1.	Barometric pressure: 748 n	mHg	2. Temperate	re:34 °C	
E.	Results of Physical Paran	neters of Flue Gas :			
St No	Test Parameters	Test Method	Unit	1	Results
1	Temperature of emission	IS 11255 : Part 3 : 2008	"C		60
2.	Velocity of gas in duct	TS 11255 Part 3:2008	m/sec		16.74
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ² /hr		03234
	Results of gaseous emiss		NM /hr]	-	03234
SINo	Test Parameters		T ** * T		
51-10	Test Parameters	Test Method	Unit	Results	Norms as per CPCB
L	Carbon monoxide	IS 13270 : 1992 (By Oriut)	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	18 13270 : 1992 (By Onial)	% s/v	0.2	Not Specified
3.	Oxygen	(S 13270 : 1992 (By Orsar)	% v/v	19.8	Not Specified
4.	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	48.33	150 max.
5.	Total Fluoride	Total disposition of the Control of			
200	Foral Fillionde	IS 11255 (Part - 5): 1990	mg/Nm ³	1.95	< 10
6.	Ammonia as NH;	Methods of Air Sumpling & Analysis, 3rd Ed. (Indephenol Method), Method 401	mg/Nm ³	130.00	300 max.

Report Verified by

Chyen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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TC-12347

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Certificate No. AP-FG/24-25/PPL/07 Issue Date: July 30, 2025 Page 1 of 1 M/S. M/S. PARADEEP PHOSPHATE LTD. Issued to Paradeep, Odisha. Address Your S.O. No. 5500007609, dtd. 16.08.2024 Equipment used: Stack Gas / Flue Gas Sample Description Stack Monitoring Kit : AP-FG/24-25/PPL/07 Sample ID No. ID No.: RVB/SMK/04 (Cal. Validity: 04.05.26) M/S. M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site Parameters Tested Paradeep, Odisha. Physical & General Date & time of sampling : 20.07.2025 (04:15 P.M. to 04:50 P.M.) Temp., Velocity, Gas flow, O2, CO2 & CO : RVB/FM/45 & IS: 11255 (Purt-1,2 & 3) Sampling Plan & Method Chemical: Sampling Carried out by : Mr. S. Banerjee PML NH. & TF Analysis Started on : 28.07.2025 Analysis Completed on : 30.07.2025 General information about stack : : DAP - D Stack connected to - Process Emmision Emission due to 2 Material of construction of stack : M.S. Shape of stack : Circular. 4. Whether stack is provided with permanent platform & ladder: Yes Physical characteristics of stack: B. : 50 m Height of the stack from ground level 1. : 2.8 m Diameter of the stack at sampling point 30 : 32 Nos. No. of Traverse point. 4. 35 m Height of the sampling point from GL Analysis / Characteristic of stack Gas / Flue Gas : 3.Lond : ---Fuel consumption: ---Fuel used :---Environmental conditions : D. 2. Temperature: 34°C Barometric pressure: 748 mmHg 1. Results of Physical Parameters of Flue Gas: E Results SI No Test Parameters Test Method Unit 65 IS 11255 : Part 3 : 2008 Temperature of emission //C 16.23 15 11255:Part 3:2008 Velocity of gas in duct m/sec 2. 285450 IS 11255:Part 3:2008 NM /hr Quantity of gas flow 3 Results of gaseous emission: E. Unit Results Norms Test Method SI No Test Parameters as per CPCB IS 13270 - 1992 (By Onut) < 0.2 Not Specified 16 v/v Carbon monoxide 1. % V/V Not Specified 2 IS 13270 : 1992 (By Orsat) 0.2 Carbon dioxide % V/V 19.4 Not Specified IS 13270 : 1992 (By Circut) 3. Oxygen 150 max. 54.8 IS 11255 : Part 1 : 1985 mg/Nm3 Particulate Matters 4. < 10. IS 11255 (Part - 5): 1990 1.72 5 Total Fluoride mg/Nm Methods of Air Sampling & Analysis, 3rd Ed. 300 max. 115.00 mg/Nm3 6. Ammonin as NH₂ (Indophenal Method), Nethod 401

Report Verified by

F.

Player

Pollution control device

Reviewed & Authorised by

(Dr./R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

* Results relate only to the parameters tested, for the particular item,

Details of pollution control devices attached with the stack: Wet Scrubber

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CIN: U51109WB1931PTC007007



TEST REPORT

ssued	to	: M/S, M/S, P	Issue Date: July 30, 2020 ARADEEP PHOSPHATE LT			Page 1 of 1
Addre		: Paradeep, C		-		
	.O. No.		dtd. 16.08.7024			
Sample Description : Stack Gas / Flue Gas				1 1	Equipment :	ised:
	ID No.	: AP-FG/24-25	PPL/08	Stack Monite		
Same o	if Industry / Site	: M/S. M/S. PAI	RADEEP PHOSPHATE LTD.			Validity: 04.95.26
		Paradeep, Odis	ha.	1	Parameters 7	exted
	time of sampling	: 19.07.2025 (03:00 P.M. to 03:38 P.M.)	Physical & G	eneral :	
	ng Plan & Method	: RVB/FM/45	& IS: 11255 (Part-1,2 & 3)	Temp., Veloci	ty, Gus flow,	O ₃ , CO ₂ & CO
	ng Carried out by	: Mr. S. Baner	ee	Chemical:		
	is Started on	: 28.07,2025		PM & TF		
	is Completed on	:30.07.2025				
	General information abo	ut stack :				
	Stack connected to		: PAP # 1			
	Emission due to		: Process Emmision			
	Material of construction of	if stack	: M.S.			
	Shape of stack	and the same of th	: Circular.			
	Whether stack is provided		platform & ladder: Yes.			
	Physical characteristics					
	Height of the stack from ground level : 50 m Diameter of the stack at sampling point : 2.7 m					
		ampaing point	: 2.7 m			
	No. of Traverse point Height of the sampling po	Table Marine 1978	: 32 Nos. : 35 m			
	Analysis / Characteristic					
L.	Fuel used :	OF STRUK GREET	2. Fuel consumption :		3.Load :	
	Environmental condition	16.1	2. Tuer consumption ;		3.L000 : ***	
	Barometric pressure: 748			A Thomas	and the	
	Results of Physical Para		ine :	2. Temperati	IIC : 33 C	
SI No	Test Parameters		Test Method	T Tinte I		Color This
1.	Temperature of emission		11255 : Part 3 : 2008	Unit C	- 1	esults
	10 1112					45
2.	Velocity of gas in duet		S 11255:Part 3:2008	m/sec		6.07
3.	Quantity of gas flow		IS 11255:Part 3:2008	NM³/hr	1	12334
F.	Results of gaseous emis	sion:				
SINo	Test Parameters		Test Method	Unit	Results	Norms
						as per CPCB
1.	Carbon monoxide	IS	3270 1992 (By Orint)	56 s/w	< 0.2	Not Specified
2.	Carbon dloxide	15)	3270 - 1992 (By Orsat)	% v/v	0.2	Not Specified
3.	Oxygen		3270 : 1992 (By Orsat)	% v/v	19.6	Not Specified
4.	Particulate Matters	10000	11255 : Part 1 : 1985	mg/Nm3	38.18	150 max.
3	Total Fluoride	100	11255 (Part - 5): 1990	mg/Nm ¹	4.05	20 max.
7.3	Pollution control device	7.10		(0.855)	9700	20.11102

Report Venfied by

Glayer

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



TEST REPORT

Sample I Same of Date & 1 Sampling	S O. No. Description ID No.	: M/S. M/S. PARADEEP PHOSPHATE L' : Paradeep, Odisha. : 5500007609, dtd. 16.08.2024 : Stack Gas / Flue Gas	TD.		
Four S.C Sample I Sample I Same of Date & 1 Sampling	O. No. Description ID No.	: 5506007609, dtd. 16.08.2024			
Sample I Sample I Same of Date & t Sampling	Description ID No.				
Sample I Same of Date & 1 Sampling	ID No.	- Street Care / Maye Care		-	
Same of Date & 1 Sampling			WELL DU WORD ON	Equipment	used:
Date & 1 Samplin	China dia pertende di 107 data.	: AP-FG/24-25/PPL/09	Stack Monit		Validity: 04.05.26)
Samplin	maustry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha.	ILF NO.: RVB	Parameters	
Samplin	ime of sampling	: 22.07.2025 (11:30 A.M. to 12:06 P.M.)	Physical & G		LEMEN
	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	the second secon		0,00,4:00
amplin	g Carried out by	: Mr. S. Banerice	Chemical:	0.0000000000000000000000000000000000000	Of an end one more
	Started on	: 28.07.2025	PM & TF		
	Completed on	: 30.07.2025			
A C	General information abou		4		
1. 8	Stack connected to	: PAP = 2			
	mission due to	; Process Emmision			
	Material of construction of				
	Shape of stack	: Circular,			
		with permanent platform & ladder: Yes.			
	Physical characteristics				
	Nameter of the stack at sa				
	No. of Traverse point Height of the sampling poi	: 12 Nos. int from GL : 30 m			
		of stack Gas / Flue Gas :			
	Fuel used 2-	2. Fuel consumption :		Mond:	
	Environmental condition			7.57/90 -	
	Sarometric pressure: 748	_	2. Temperat	ton - 24 %	
	Results of Physical Para		a. remperan	ane - 34 G	
SI No	Test Parameters	Test Method	Unit	- 1	Results
	Temperature of emission	IS 11255 : Part 3 : 2008	°C		50
	Velocity of gas in duct	IS 11255/Part 3:2008	m/sec		14.21
	Quantity of gas flow	IS 11255 Part 3:2008	NM ³ /hr		35414
	Results of gaseous emis		DOM /BE		33414
SLNo	Test Parameters	Test Method	Unit	Results	N. Santa
21.340	test Parameters	rest Method	Cuit	Results	Norms as per CPCB
10	Carbon misnoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	96.6%	0.2	Not Specified
3.	Oxygen	IS 13270 : 1992 (By Orsat)	28.0%	19.4	Not Specified
	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	35.72	150 max.
	Total Flueride	IS 11255 (Part - 5): 1990	mg/Nm1	2.52	20 max.
-	Pollution control device		I mg/thiii		-40 0000

Report Verified by

Playen

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



TEST REPORT

ssue	icate No. AP-FG/24-25/ d to	PPL/10 Issue Date: July 30, 20: : M/S. M/S. PARADEEP PHOSPHATE L		Page 1 of 1	
Addre	ISS	Paradeep, Odisha.	10.		
Your S	.O. No.	: 5500007609, dtd. 16.08.2024			
Sampli	e Description	: Stuck Gas / Flue Gas	Equ	ipment used:	
	e ID No.	: AP-FG/24-25/PPL/10	Stack Monitorin		
Name	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		K/04 (Cal. Validity: 04.05.26	
		Paradeep, Odisha.		imeters Tested	
	time of sampling	: 21.07.2025 (03:00 P.M. to 03:32 P.M.)	Physical & Gener		
	ing Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, 6	Gas flow, O ₂ , CO ₂ & CO	
Sampl	ing Carried out by	: Mr. S. Banerjee	Chemical z		
	is Started on	: 28.07.2025	PM		
-	is Completed on	: 30.07.2025			
A.	General information abo				
1.	Stack connected to	: Zypmite – 1			
2.	Emission due to	: Process Emmision			
3.	Material of construction of				
5.	Shape of stack	: Circular.			
B.	Physical characteristics	with permanent platform & ladder : Yes.			
1.					
3.					
4.	No. of Traverse point	: 12 Nos.			
C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
T.	Fuel used	2. Fuel consumption :	7.1	ad :	
D.	Environmental condition	5.1	5.63	add ; ess	
1.	Barometric pressure: 752		2. Temperature	20.00	
E.	Results of Physical Para		2. Temperature	33 C	
Sl No	Test Parameters	Test Method	Unit	Results	
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C	50	
2.	Velocity of gas in duct	1S 11255 Part 3 : 2008	m/sec	16.63	
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM³/hr	44089	
F.	Results of gaseous emis	sion:			
SI No	Test Parameters	Test Method	Unit	Results	
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2	
2.	Carbon dioxide	IS 13270 : 1992 (By Orant)	95 x/x	0.2	
3.	Oxygen	IS 13270 : 1992 (By Orsat)	96 V/V	19.4	
4.	Particulate Matters	18 11255 - Part 1 : 1985	mg/Nm3	32	
	THE SPANISH WAS ARREST TO	13 112.22 Fill 1 1953	1 173 (E) P(199 S.	19.00	

Report Verified by

Gayen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

< END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007



TEST REPORT

ssue	icate No. AP-FG/24-25/F d to		PARADEEP PHOSPHATE		Page 1 o
Address		Paradeep		ha-1 ha's	
	.O. No.		9, dtd. 16:08:2024		
Sample	e Description	: Stack Gas		Egy	uipment used:
	e ID No.	: AP-FG/24-	-25/PPL/11	Stack Monitoring	
Name (of Industry / Site	1 M/S. M/S. P	ARADEEP PHOSPHATE LTD.		/06 (Cal. Validity: 04.05.26)
		Paradeep, O	disha.	Par	ameters Tested
	time of sampling		(03:45 P.M. to 04:19 P.M.)	Physical & Genera	f.c.
	ng Plan & Method		15 & 1S: 11255 (Part-1,2 & 3)	Temp., Velocity, Gr	as flow, O ₂ , CO ₂ & CO
	ng Carried out by	: Mr.S. Bane		Chemical :	
	is Started on	: 28.07,2025		PM	
	is Completed on	: 30.07.2025	F:		
A.	General information about	it stack :			
1.	Strick connected to		: Zypmite - 2		
2.	Emission due to	KONSTONES	: Process Emmision		
3.	Material of construction of	stack	: M.S.		
4.	Shape of stack		: Circular,		
5. B.	Ohyplaci aborretariation	with permane	nt platform & ludder : Yes.		
1.	Physical characteristics		20		
3.	7) 17/27/4011				
4.					
C.	No. of Traverse point Analysis / Characteristic	of stank Car	115 Nos.		
1.	Fuel used ;	of stack Gas		79	· v
D.	Environmental condition	6.1	2. Fuel consumption : -	3.1.00	nd :
L	Barometric pressure: 752		ST AND DE CONTRACTOR OF THE CO	2. Temperature :	33 °C
E,	Results of Physical Parar	neters of Flui			
SI No	Test Parameters		Test Method	Unit	Results
1.	Temperature of emission		IS 11255 : Part 3 : 2008	*C	52
2.	Velocity of gas in duct		IS 11255 : Part 3 : 2008	m/sec	16.11
3.	Quantity of gas flow		IS 11255 : Part 3 : 2008	NM ⁹ /hr	28922
F.	Results of gaseous emis-	sion:	74 1 1472 1 141 2 2 2 4 4 6	SOM THE	10766
SI No	Test Parameters		Test Method	Unit	Results
500 W AVA	Take A straingers		Test Merann	Onic	Results
1.	Carbon monoxide		S 13270 = 1992 (By Orsat)	% vrv	<0.2
2.	Carbon dioxide	1	5 13270 : 1992 (By Orsat)	76-y/v	0.2
3	Oxygen		S 13270 : 1992 (By Ossir)	96 v/v	19.8
4.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	30.4
	C. O. STREET, CHARLES		Dec. 1 4 (0.00) 1 4 (40) 1 1 4 (3.00)	THE DATES	.30.4

Report Verified by

ajoyen

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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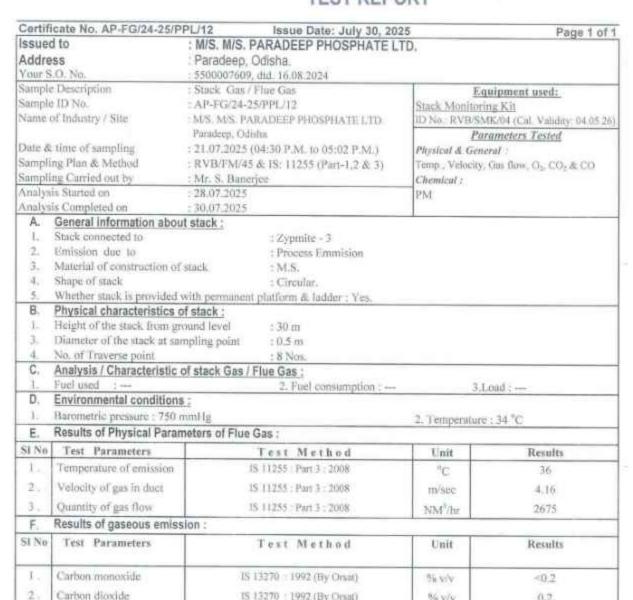
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CIN: U51109WB1931PTC007007

TC-12347





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Particulate Matters

Pollution control device

Oxygen

3 .

4.

Reviewed & Authorised by

96 Y/V

24 v/v

mg/Nm3

0.2

19.5

26

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

15 13270 1992 (By Onat)

IS 13270 : 1992 (By Oniat)

IS 11255 Part 1 : 1985

Details of pollution control devices attached with the stack : Bagfilter, Cyclone.

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Huncan	e No. AP-FG/25-26/07	81 A Issue Date: August 26, 20	720	Page 1 of 1	
sued to		: M/S. M/S. PARADEEP PHOSPHATE LI	ID.		
Address		: Paradeep, Odisha.			
our S.O.	No.	: 5500007609, dtd. 16.08.2024	Fauinn	ent used:	
mple De	escription	: Stack Gas / Flue Gas	Stack Monitoring K	it	
mple ID	No.	: AP-FG/25-26/0781 A	ID No - RVB/SMK/0	7 (Cal. Validity: 04,05.26	
ame of Ir	ndustry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	Parame	ters Tested	
		Paradeep, Odisha.	Physical & General		
ate & tin	ne of sampling	: 20.08.2025 (04:10 P.M. to 04:49 P.M.)	Temp. Velocity, Gas	flow, O2, CO2 & CO	
ampling !	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1.2 & 3)	Chemical:		
ampling	Carried out by	: Mr. P.P. Mondal	PM		
nalysis S	Started on	: 23.08.2025	A.312		
nalysis (Completed on	: 26.08.2025			
A. Ge	eneral information abou	t stack : : Zypmite - 1			
	ack connected to	: Zypmite - 1 : Process Emmision			
2. Er	mission due to				
	laterial of construction of	stack : St.S.			
4. St	hape of stack	Cucular.			
Shape of stack Whether stack is provided with permanent platform & ladder: Yes.					
B. P	B. Physical characteristics of stack;				
1. H	leight of the stack from g	round level 50 m			
3. Diameter of the stack at sampling point					
4. N	to, of Traverse point				
C. A	nalysis / Characteristic	of stack Gas / Flue Gas : 2. Fuel consumption :	3.Loa	d ;	
1. F	uel used :				
D. E	nvironmental condition	<u>15 ;</u>	2. Temperature :	30 °C	
1. E	Sarometric pressure: 754	mmilig	41 1211		
E. F	Results of Physical Para	ameters of Flue Gas :	Unit	Results	
SI No	Test Parameters	Test Method	°C	48	
	Temperature of emission	IS 11255 : Part 3 : 2008		20.25	
	Velocity of gas in duct	IS 11255 : Part 3 : 2008	m/sec		
		IS 11255 : Part 3 : 2008	NM ³ /hr	54167	
3.	Quantity of gas flow	The Court of the C			
F.	Results of gaseous em	ission:	Unit	Results	
SI No	Test Parameters	Test Method			
	Committee and the state of the	IS 13270 : 1992 (By Orsat)	% v/v	<0.2	
L	Carbon monoxide		% v/v	0.2	
	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	19.4	
2.		IS 13270 : 1992 (By Orsat)		33	
	L Oxygen		100 to 120 100 100 100 100 100 100 100 100 100		
2. 3. 4.	Oxygen Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	14.4	

Report Verified by

Reviewed & Authorised by

TC-12347

Dago 1 of 1

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

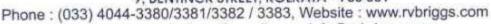
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TEST REPORT

ertificate	No. AP-FG/25-26/07	782 A Issue Date: August 26, 2	Z025	Page 1 o	
sued to		: M/S. M/S. PARADEEP PHOSPHATE L	.ID.		
ddress		: Paradeep, Odisha.			
our S.O. N		: 5500007609. dtd. 16.08.2024	Foul	oment used:	
ample Des	cription	: Stack Gas / Flue Gas	Stack Monitoring K		
ample ID?		: AP-FG/25-26/0782 A	ID No : RVR/SMK/0	7 (Cal. Validity: 04.05.26)	
ame of Inc	dustry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.	Para	neters Tested	
00000 de 000 2 000	COLUMN AND AND AND AND AND AND AND AND AND AN	Paradeep, Odisha. : 20.08.2025 (04:55 P.M. to 05:37 P.M.)	Physical & General		
ate & time	of sampling	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity, Gas	flow, O2, CO2 & CO	
	lan & Method	: Mr.P.P.Mondal	Chemical:		
	arried out by	: 23.08.2025	PM		
nalysis St	arted on	: 26.08.2025	(1793)		
maiysis Co	ompleted on neral information abou				
100	ck connected to	: Zypmite - 2			
B. L	ission due to	: Process Emmision			
3. Ma	terial of construction of				
	pe of stack	: Circular.			
5. Wh	ether stuck is provided	with permanent platform & ladder: Yes,			
B. Ph	vsical characteristics	of stack :			
l. Hei	77 (1 m) 1 m				
3. Die	meter of the stack at sa	ampling point : 0.85 m			
4 No	of Traverse point	: 12 Nos.			
C. An	alysis / Characteristic	of stack Gas / Flue Gas :	1999	*********	
L. Fu	el used :	2. Fuel consumption : -	3.Loa	1:	
D. En	vironmental condition	15 :			
1. Bu	rometric pressure: 754	mmHg	2. Temperature : 3	0 °C	
E. Re	sults of Physical Para	meters of Flue Gas :			
	Test Parameters	Test Method	Unit	Results	
A SECTION ASSESSMENT AND ADDRESS.			°C	41	
	emperature of emission	IS 11255 : Part 3 : 2008	m/sec	13.31	
2., V	elocity of gas in duct	The state of the s	0	24879	
3. Q	uantity of gas flow	IS 11255 : Part 3 : 2008	NM³/hr	24079	
F. Re	sults of gaseous emi	ssion:			
	Test Parameters	Test Method	Unit	Results	
1. 0	arbon monoxide	IS 13270 : 1992 (By Otsat)	76 V/V	< 0.2	
000	arbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2	
10.70	All and the second of the seco	IS 13270 : 1992 (By Orsat)	% v/v	19.6	
	hxygen	IS 11255 : Part 1 : 1985	mg/Nm3	35.7	
	articulate Matters				

Report Verified by

Reviewed & Authorised by

TC-12347

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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ANALYTICAL CONSULTING & TECHNICAL CHEMISTS

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TAHER MANSION, 1ST FLOOR

9, BENTINCK STREET, KOLKATA - 700 001

Chemical:

PM

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



	TEST REPORT	
Certificate No. AP-FG/25-2	6/0783A Issue Date: August 26, 2	025 Page 1 of 1
Issued to Address	: M/S. M/S. PARADEEP PHOSPHATE L' : Paradeep, Odisha. : 5500007609, dtd. 16.08.2024	
Your S.O. No. Sample Description Sample ID No. Name of Industry / Site	: Stack Gas / Flue Gas : AP-FG/25-26/0783A : M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odishu.	Stack Monitoring Kit ID No.: RVB/SMK/07 (Cal. Validity: 04.05.26) Parameters Tested
Date & time of sampling Sampling Plan & Method	: 20.08.2025 (05:40 P.M. to 06:08 P.M.) : RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Physical & General: Temp_ Velocity, Gas flow, O ₂ , CO ₂ & CO

Analysis Started on : 26.08.2025 Analysis Completed on

Sampling Carried out by

General information about stack: : Zypmite - 3 Stack connected to : Process Emmision Emission due to 2. : M.S.

: Mr.P.P.Mondal

- 23.08.2025

Material of construction of stack : Circular. Shape of stack

Whether stack is provided with permanent platform & ladder; Yes. 5.

Physical characteristics of stack: B.

Height of the stack from ground level : 30 m 1. 3. Diameter of the stack at sampling point : 0.5 m : 8 Nos. No. of Traverse point 4.

Analysis / Characteristic of stack Gas / Flue Gas :

3.Load : ---2. Fuel consumption : ---Fuel used :---

Environmental conditions:

Temperature : 30 °C Barometric pressure: 754 mmHg 1.

Results of Physical Parameters of Flue Gas:

L-1		Test Method	Unit	Results
SI No	Test Parameters		0.63	32
1	Temperature of emission	IS 11255 : Part 3 : 2008	°C	
	Velocity of gas in duct	IS 11255 Part 3 2008	m/sec	4.81
200		IS 11255 : Part 3 : 2008	NM³/hr	3247
	Quantity of gas flow			

F	Results of gaseous emission		Unit	Results
SI No	Test Parameters	Test Method	City	194000000000000000000000000000000000000
		IS 13270 : 1992 (By Orsat)	96 v/v	<0.2
1 .	Carbon monoxide		% v/v	0.2
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	100000000	19.8
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	
4.	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	28

Pollution control device

Details of pollution control devices attached with the stack : Bagfilter, Cyclone

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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(AN ISO 9001:2015 & ISO 45001: 2018 CERTIFIED COMPANY) TAHER MANSION, 1ST FLOOR

9, BENTINCK STREET, KOLKATA - 700 001

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

			ILSI KLI OK			Dans 4 of 1
- di Ennto	No. AP-FG/25-26/07	84 A	Issue Date: August 26, 20	125	_	Page 1 of 1
sued to ddress	NO. AT 1 0/20 2010	: M/S. M/S. P/ : Paradeep. O	ARADEEP PHOSPHATE L' disha.	TD.		
our S.O. ?	No.	: 5500007609, d	ltd. 16.08.2024	Equ	ipment use	d:
ample Des	cription No.	: Stack Gas / F : AP-FG/25-26	/0784 A	Stack Monitorin	<u>g Kit</u> K/07 (Cal. Va	lidity: 04.05.26)
lame of In	dustry / Site e of sampling	Paradeep, Odisi	04:10 P.M. to 04:43 P.M.)	Physical & Gene Temp., Velocity.	meters Test	ted_
Jaie & iiii	lan & Method	: RVB/FM/45	& 1S: 11255 (Part-1,2 & 3)		Gas How, OS.	coj w.co.
sampling r	arried out by	: Mr.P.P.Mono		Chemical :		
Analysis S	tarted on	: 23.08.2025		PM & TF		
Analysis S	ompleted on	: 26.08.2025			_	
A. Ge	neral information abou					
1. Str	ick connected to		: PAP # 1			
	nission due to		: Process Emmision			
3. M	aterial of construction o	f stack	: M.S.			
3750			: Circular.			
4. Sh 5. W	hather stack is provided	with permanen	t platform & ladder : Yes.			
B. Pi	ysical characteristics	of stack :				
D. F1	eight of the stack from p	ground level	: 50 m			
1. H	iameter of the stack at s	ampling point	: 2.7 m			
3. D	o. of Traverse point		: 30 Nos.			
2 64	The Cale amoraling of	oint from GL	: 35 m			
5. H	nalysis / Characteristi	onf stack Gas	Flue Gas :			
140	uel used :	C Of Other Pass	2. Fuel consumption :	. 3.	Load:	
D. E	nvironmental conditio	ns:		2. Temperatu	re: 30 °C	
1. B	arometric pressure : 75 Results of Physical Par	ameters of Flui	e Gas :			
The state of the s	lesults of Physical Pal	difference of the	Test Method	Unit	R	esults
SINo	Test Parameters	_	IS 11255 : Part 3 : 2008	°C		48
	Temperature of emissio	n	IS 11255:Part 3:2008	m/sec		7.21
2.	Velocity of gas in duct	1		NM³/hr	1	29767
3.	Quantity of gas flow		IS 11255:Part 3:2008	No. in .		
F.	Results of gaseous en	nission :		Unit	Results	Norms
SINO	Test Parameters		Test Method	Cnu	resum	as per CPCE
2000			Loop (D. Court)	% v/v	< 0.2	Not Specific
1.	Carbon monoxide		IS 13270 : 1992 (By Orsat)	96 v/v	0.2	Not Specific
2.	Carbon dioxide		IS 13270 : 1992 (By Orsat)	00000000	19.4	Not Specifi
D-075	Oxygen		IS 13270 ; 1992 (By Orsat)	% v/v	42	150 max.
3.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	17.	20 max.
4.			IS 11255 (Part - 5): 1990	mg/Nm ³	4.66	20 max.
5	Total Fluoride		- 10 Control 10			

Pollution control device

Total Fluoride

Reviewed & Authorised by

TC-12347

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

.: END OF TEST REPORT :-

Results relate only to the parameters of the item tested.

Details of pollution control devices attached with the stack : Wet Scrubber

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TAHER MANSION, 1ST FLOOR

9, BENTINCK STREET, KOLKATA - 700 001 Phone : (033) 4044-3380/3381/3382 / 3383, Website : www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

			TEST KEPO			Page 1 of 1
ertificati	e No. AP-FG/25-26/07	85 A	Issue Date: August 26, 2	025		rugurun
sued to		: M/S. M/S	PARADEEP PHOSPHATE L	IU.		1
ddress		: Paradee	p, Odisha.			
our S.O.	No.	: 55000076	09, dtd. 16.08.2024	Fau	ipment use	d:
musle De	scription	: Stack Ga	s / Flue Gas	Stack Monitoria	a Kit	22
umple ID	No.	: AP-FG/2	5-26/0785 A	ID No.: RVB/SM	K 07(Cal. Val	idity: 04.05.26)
ume of Ir	ndustry / Site	: M/S, M/S.	PARADEEP PHOSPHATE LTD.	ID NO.: K v Drawi	ameters Tes	ted
anie or n	2 (See 12	Paradeep,	Odisha.	Physical & Gene		222
ote & tin	ne of sampling	: 22,08.20	25 (11:30 A.M. to 12:09 P.M.)	Temp., Velocity,	rin . Class flow Ox	CO-& CO
and or an	Plan & Method		1/45 & 1S: 11255 (Part-1,2 & 3)	Chemical:	Character and	
ampling	Carried out by	: Mr.P.P. 1		PM, NH, & TF		
onlysis S	Started on	: 23.08.20	25	PM, NHy & IF		
malveis (Completed on	: 26.08.20	25			
A G	eneral information abo	ut stack:	# 1972 SX			
1. St	ack connected to		: DAP • A			
	mission due to		: Process Emmision			
3. M	laterial of construction of	fanck	; M.S.			
- 2	The state of the s		: Circular.			
T 3	thether stack is provided	with perma	nent platform & ladder : Yes,			
B P	hysical characteristics	of stack :				
1 13	leight of the stack from g	round level	; 50 m			
3. D	Diameter of the stack in sa	ampling poir	at : 2.8 m			
4 8	so of Traverse point		: 50 NOS.			
	totals of the sampling oc	oint from GI	: 35 m			
C. A	Analysis / Characteristi	c of stack (as / riue Gas .		Load :	
1. 1	Fuel used :		2. Fuel consumption : -		Library -	
D. E	Environmental condition	ns:		50 Table 1 To 1 T	20 °C	
1 1	Barremetric pressure: 752	2 mmHg		2. Temperatu	16:30 C	
1/	Results of Physical Par	ameters of	Flue Gas :		D	esults
	Test Parameters		lest Method	Unit	K	52
SLNo	Temperature of emission		IS 11255 : Part 3 : 2008	°C		TT-1
1.			IS 11255:Part 3:2008	m/sec		4.22
2	Velocity of gas in duct		IS 11255:Part 3:2008	NM ³ /hr	2	59173
3.	Quantity of gas flow		IS 11252.1411.5.2000			
E.	Results of gaseous en	nission:	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Unit	Results	Norms
SINo	Test Parameters		Test Method	Cant		as per CPCB
31.50	Charles Concessors			96 v/v	< 0.2	Not Specifie
1.	Carbon monoxide	- 1	(S 13270 1992 (By Orsat)	10000000	0.2	Not Specifie
1000	Curbon dioxide	1	(S 13270 - 1992 (By Orsat)	86 v/v	1	Not Specific
2.	13		IS 13270 : 1992 (By Orsat)	% v/v	19.6	
3	Oxygen		IS 11255 : Purt I : 1985	mg/Nm3	59.9	150 max.
4	Particulate Matters		IS 11255 (Part - 5): 1990	mg/Nm ³	3.96	< 10
5	Total Fluoride			ma.	101.10	300 max.
6.	Ammonia as NH ₃	Met	hods of Air Sampling & Analysis, 3rd (Indophenol Method), Method 401	mg/Nm ³	191.10	300 max.
		_				
F.	Pollution control devi	ice	s attached with the stack; Wet Sen	NAME OF THE PARTY		

Reporterified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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9. BENTINCK STREET, KOLKATA - 700 001

TC-12347

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

sued to ddress our S.O. 1 ample Des ample ID ame of In tate & tim ampling P ampling C malysis St	No. scription No. dustry / Site	M/S. M/S. PARADEEP PHOSPHATE LTG Paradeep, Odisha. 5500007609, dtd. 16.08.2024 Stack Gas / Flue Gas AP-FG/25-26/0786 A	E	quipment us	
our S.O. 1 ample Des ample ID ame of In tate & tim ampling P ampling C analysis Si	No. scription No. ndustry / Site	5500007609, dtd. 16.08.2024 Stack Gas / Flue Gas AP-FG/25-26/0786 A		wioment us	
ample Des ample ID ame of In tate & tim ampling P ampling C analysis St	scription No. ndustry / Site	Stack Gas / Flue Gas AP-FG/25-26/0786 A		winment us	
ample ID ame of In tate & tim ampling P ampling C analysis Si	No. ndustry / Site	AP-FG/25-26/0786 A			ad.
ame of In tate & tim ampling P ampling C	dustry / Site		I Charles & Samistan		eur
ate & tim ampling P ampling C malysis Si		THE RESERVE OF THE PARTY OF THE	Stack Monitor	MK/07/Cal. V	alidity: 04.05.26)
ampling P ampling C analysis St		M/S. M/S. PARADEEP PHOSPHATE LTD.		rameters Te	
ampling P ampling C analysis St	50 SECONORIES (SV)	Paradeep, Odisha. 22.08.2025 (12:20 P.M. to 12:56 P.M.)	Physical & Ger		
ampling C		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity		, CO, & CO
malysis St		: Mr.P.P. Mondal	Chemical:	Med Appenio William	*****************
		23.08.2025	PM, NH, & T	F	
to - 27	TOTAL CONT. 1011	26.08.2025	CTOME COMPANY	87	
A. Ge	neral information about				
	ack connected to	: DAP - B			
	nission due to	: Process Emmision			
	aterial of construction of	itack : M.S.			
4 Shi	ane of stack	: Circular.			
5. WI	hether stack is provided v	vith permanent platform & ladder: Yes.			
B. Ph	ysical characteristics o	f stack :			
1. He	eight of the stack from gre	ound level : 50 m			
	ameter of the stack at san	npling point : 2.8 m			
4. No	o. of Traverse point	: 30 Nos.			
5. He	eight of the sampling poir	t from GL : 35 m			
	nalysis / Characteristic of net used :	of stack Gas / Flue Gas : 2. Fuel consumption :	3	Load:	
	nvironmental conditions	1			
	arometric pressure: 752 r		2. Temperatu	re: 30 °C	
E. Re	esults of Physical Paran	neters of Flue Gas :			
	Test Parameters	Test Method	Unit	R	esults
	emperature of emission	IS 11255 ; Part 3 ; 2008	°C		57
2.3	elocity of gas in duct	IS 11255:Part 3:2008	m/sec		15.83
100	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	2	84357
E. R	esults of gaseous emis	sion :			
	Test Parameters	Test Method	Unit	Results	Norms
31 150	Test Carameters				as per CPCB
1. 0	Carbon monoxide	IS 13270 1992 (By Orsat)	96 V/V	< 0.2	Not Specified
0.00		IS 13270 - 1992 (By Orsat)	% v/v	0.2	Not Specifie
100 850 185	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	19.4	Not Specifie
	Oxygen	IS 11255 : Part 1 : 1985	mg/Nm3	63.3	150 max.
0.000	Particulate Matters	IS 11255 (Part - 5): 1990	mg/Nm³	4.02	< 10
5 1	Total Fluoride				659736
6. /	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm³	144.00	300 max.

Report Verified by

Reviewed & Anthorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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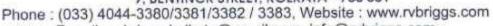
ANALYTICAL CONSULTING & TECHNICAL CHEMISTS

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TAHER MANSION, 1ST FLOOR

9. BENTINCK STREET, KOLKATA - 700 001

TC-12347



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



ortifica	te No. AP-FG/25-26/07	787 A Issue Date: August 26, 2	1025		Page 1 of 1
sued to		: M/S. M/S. PARADEEP PHOSPHATE L	.TD.		
ddress		: Paradeep, Odisha.			
our S.O.		: 5509007609, dtd. 16.08.2024		4	
	escription	: Stack Gas / Flue Gas	Eq	uipment use	di
ample II	2 No.	- AP-FG/25-26/0787 A	Stack Monitori	ng Kit	Sem 0105 763
unpie is	Industry / Site	M/S M/S PARADEEP PHOSPHATE LTD.	ID No. RVB/SM	IK/07(Ca). Va	naity: 04.05.26)
anne en a	mudgity - one	Paradeep, Odisha		rameters Tes	Ica
8. 15	me of sampling	: 22,08,2025 (01:15 P.M. to 01:51 P.M.)	Physical & Gene	eral :	
ate & II	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity,	Gas flow, O2	CO ² & CO
ampung	Carried out by	: Mr.P.P. Mondal	Chemical:		
ampung	Started on	: 23.08.2025	PM. NH ₃ & TI	F.	
malysis	Completed on	: 26.08.2025			
malysis	Seneral information abou				
A. G	tack connected to	: DAP - C			
	mission due to	: Process Emmission			
2. E	mission due to daterial of construction of				
		: Circular.			
4. 8	ihape of stack	with permanent platform & ladder: Yes.			
5. 1	Physical characteristics	of etack *			
B. <u>F</u>	Height of the stack from g	cound level : 50 m			
		Chimney			
	Sampling Point Diameter of the stack at sa				
3. 1	Dinmeter of the stack at so	: 30 Nos.			
4. 1	No. of Traverse point Height of the sampling po	1176630000			
5.	Height of the sampling po	of stack Gas / Flue Gas :			
C.	Analysis / Characteristic	2. Fuel consumption :	3	Load :	
1.	Fuel used : Environmental condition				
D.	Environmental condition	I mentio	Temperatu	re:30 °C	
1,	Barometric pressure: 752	mmrg			
E.	Results of Physical Para	imeters of Fine Gas .	Unit	R	esults
Si No	Test Parameters	Test Method	°C		65
1.	Temperature of emission	IS 11255 Part 3 : 2008	1	1	6.55
2.	Velocity of gas in duct	15 11255 Part 3:2008	m/sec		95877
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ² /hr	- 4	93877
	Results of gaseous emi	ssion:			
E.		Test Method	Unit	Results	Norms
Si No	Test Parameters	Test metada			as per CPCB
		IS 13270 1992 (By Orsat)	% v/v	< 0.2	Not Specified
1.	Carbon monoxide		% v/v	0.2	Not Specifie
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	1,000,000,000,000	19.6	Not Specifie
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	77577	150 max
4	Particulate Matters	IS 11255 Part 1 1985	mg/Nm3	57	4.4000000000000000000000000000000000000
No.		IS 11255 (Part - 5) 1990	mg/Nm ³	2.88	< 10
5.	Total Fluoride	Methods of Air Sampling & Analysis, 3rd	Ed mg/Nm ³	135.00	300 max.
	Ammornin as well.				
6	Ammonia as NH ₃ Pollution control device	(Indophenal Method), Method 401			

Regard Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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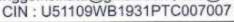
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TC-12347

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com



TEST REPORT

ertifica	te No. AP-FG/25-26/07	88 A Issue Date: August 26, 20	25	_	Page 1 of 1
sued to		: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
ddress		: Paradeep, Odisha.			
our S.O.		: 5500007609, dtd. 16:08:2024	T Fo	uipment us	ed:
	escription	: Stack Gas / Flue Gas	Stack Monitori	no Kit	Mille
imple II) No.	: AP-FG/25-26/0788A : M/S. M/S. PARADEEP PHOSPHATE LTD.	ID No. RVB/SN	4K/07(Cal. V	didny: 04.05.26)
ame of I	Industry / Site	Paradeep, Odisha.	Pa	rameters Te	sted
	3423 2423	: 22.08.2025 (02:00 P.M. to 02:39 P.M.)	Physical & Gen	erul :	
Date & time of sampling		: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocity	Gas flow, O	, CO2 & CO
ampling	Plan & Method	: Mr.P.P. Mondal	Chemical:		
ampling	Carried out by Started on	: 23.08.2025	PM, NH ₃ & T	F	
nalysis	Completed on	: 26.08.2025			
nalysis	eneral information abou				
A. G	tack connected to	: DAP - D			
	mission due to	: Process Emmision			
3. N	Agrical of construction of	stack : M.S.			
	the control of stands	: Circular			
5 V	Whether stack is provided	with permanent platform & ladder : Yes.			
B. F	hysical characteristics	of stack :			
1. 1	leight of the stack from gr	round level : 50 m			
3. 1	Diameter of the stuck at sa	mpling point : 2.8 m			
4.	No. of Traverse point	: 30 Nos.			
4 1	Leight of the sampling po-	int from GL : 35 m			
C. /	Analysis / Characteristic	of stack Gas / Flue Gas :		4 10 Table 10 Table	
	Fuel used :	2. Fuel consumption :		Load :	
D. 1	Environmental condition	ns :		a offer	
1	Barometric pressure: 752	mmHg	Temperatu	re 130°C	
E.	Results of Physical Para	ameters of Flue Gas :			The state of the s
SLNo	Test Parameters	Test Method	Unit	K	esults 66
1.	Temperature of emission	IS 11255 : Part 3 : 2008	*C		
	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec		17.13
2.		IS 11255 Part 3:2008	NM3/hr		92589
3.	Quantity of gas flow Results of gaseous emi	esion :			
_		Test Method	Unit	Results	Norms
SLNo	Test Parameters	7611			as per CPCB
		1S 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specifie
1.	Carbon monoxide	18 13270 1992 (By Ornat)	Mickly	0.2	Not Specifie
2.	Carbon dioxide		26.9/9	19.2	Not Specifie
3	Oxygen	IS 13270 : 1992 (By Orsat)	mg/Nm3	61.2	150 max
4.	Particulate Matters	1S 11255 - Part 1 - 1985	DISTANCE OF STREET	1000	< 10
5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm³	2.65	~10
6.	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd E (Indophenol Method), Method 401	d mg/Nm³	125.00	300 max.
F.	Pollution control device	e rol devices attached with the stack : Wet Scrubt			

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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TC-12347

Phone : (033) 4044-3380/3381/3382 / 3383, Website : www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

differen	e No. AP-FG/25-26/07	90A Issue Date: August 26, 2	.025	Page 1 of 1
sued to		: M/S. M/S. PARADEEP PHOSPHATE L	TD.	
idress		: Paradeep, Odisha.		
ur S.O.		: 5500007609, dtd, 16.08.2024	Poster	and words
	escription	: Smck Gas / Flue Gas		nent used:
mple ID		: AP-FG/25-26/0790A	Stack Monitoring K	63 7 (Cal. Validity: 04.05.26)
ome of I	ndustry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		eters Tested
20120-00-0	**************************************	Paradeep, Odisha.	Physical & General	
ate & tir	ne of sampling	: 19.08.2025 (04:40 P.M. to 05:19 P.M.)	Tamp Velocity Cus	flow, G ₂ , CO ₂ & CO
ampling	Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical :	
mpling	Carried out by	: Mr.P.P.Mondal	SO, & Acid Mist	
nalysis!	Started on	: 23.08.2025	919211111111111111111111111111111111111	
univers !	Completed on	: 26.08.2025		
A. G	eneral information abou	it stack:		
	oiler connected to	: Process Emission		
2. E	mission due to			
	laterial of construction of	Stack : Circular.		
4. 5	hape of stack			
5. V	Vhether stack is provided	with permanent platform & ladder : Yes.		
B. P	hysical characteristics	round level : 120 m		
1. 1	leight of the stack from g Diameter of the stack at sa	TOURS IS IN		
3. [Diameter of the stack at s	: 30 Nos.		
4.	to, of Traverse point leight of the sampling po			
5. 1	reight of the sampling po	of stack Gas / Flue Gas :	12-2-0	Victoria III
	Fuel used :	2. Fuel consumption :-	3.Los	K : ***
D. 1	Environmental condition	15:		0.0
D. 1	Barometric pressure: 754	mmHg	2. Temperature:	30 °C
L	Results of Physical Para	ameters of Flue Gas :		- N
	Test Parameters	Test Method	Unit	Results
SI No		4 94.66	°C	72
1.	Temperature of emission	1S 11255 Part 3:2008	m/sec	6.75
2	Velocity of gas in duct	The same and the s	NM ³ /hr	115531
3.	Quantity of gas flow	IS 11255 Part 3:2008	NOVI (III	
F.	Results of gaseous em	ission :	15-14	Results
SINo		Test Method	Unit	802.80
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³	West Control
250		IS 13270 : 1992 (By Orsat)	96 v/v	< 0.2
2.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2
3.	Carbon dioxide		% v/v	19.6
4.	Oxygen	IS 13270 - 1992 (By Orsat) SOP No. RVB/SOP-01/20,		28.7
1 (17) A	Acid Miss	Issue No.: 04, Issue Date: 10:01:2018	mg/Nm ³	2017
5.	I ACCIDE INTERIOR			

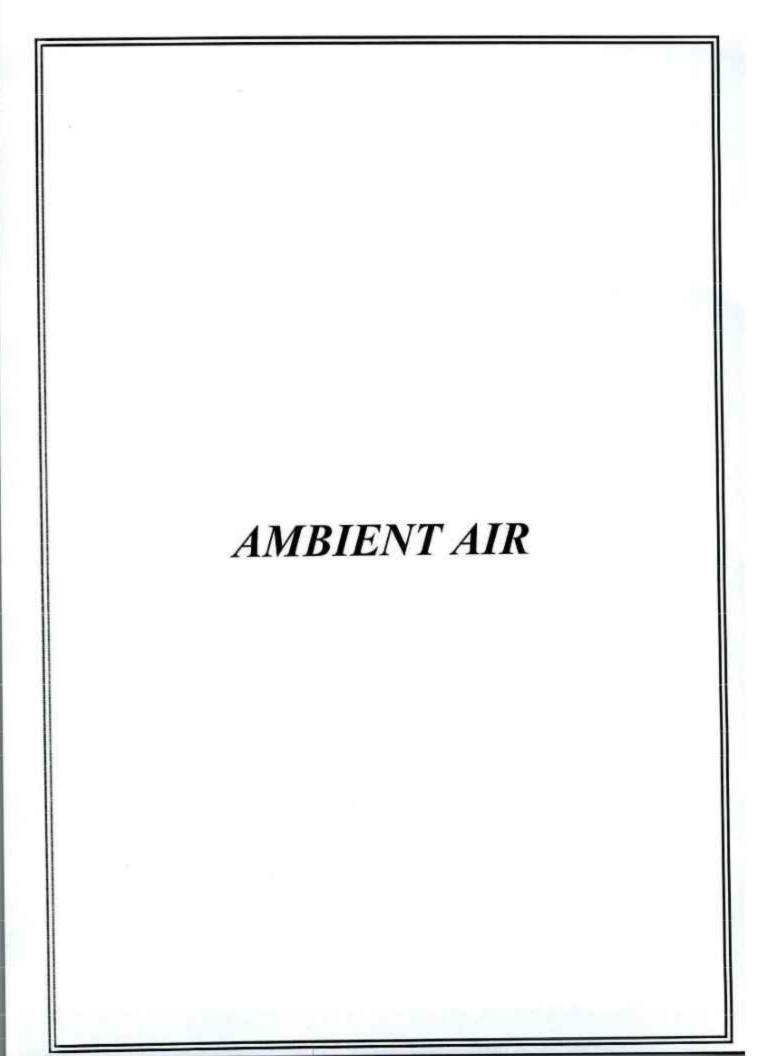
Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-26/0354 A Issue Date : August 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-26/0354A

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location : Near AAQMS # 01

Date & Time of sampling : 22.08.2025 (10:30 A.M.) -23.08.2025 (10:30 A.M.)

Duration of Sampling : 24Hrs.
Sampling Plan : : RVB/FM/45

Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 23.08.2025 Analysis Completed on : 30.08.2025

Repart Verified by

Equipment used:

TC-12347

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/22, Cal. Veild upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34°C & Min: 26.0°C

Barometric Presure : 754 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, CoHe, BaP

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	39.6	60 (24 Hourly.)
2	PM₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	48.9	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.27	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	8,40	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	10.53	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB:SOP/01/10 (indophenal Mathod) Issue No. 04. Issue Date: 10:01:2018	µg/m³	14.99	400 (24 Hourly.)
7.	Carbon Monoxide as CO	:5 :5182 (Part - 10), 1999 Non Dispersive Infta-Red (NORI) spectroscopy	mg/m ³	0.653	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.090	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Memod) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2008,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nicket: 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-26/0355A : M/S. PARADEEP PHOSPHATE LTD. Issued to

Address : Paradeep, Odisha

: 5500007609, dtd. 16.08.2024 Your Ref. No.

: Ambient Air Sample Description

Sample ID No. : AP-AAQ/25-26/0355A

: M/S. PARADEEP PHOSPHATE LTD. Name of Industry / Site

Paradeep, Odisha : Near AAQMS # 02 Sampling Location

: 21.08.2025 (10:15 A.M.)-22.08.2025 (10:15 A.M.) Date & Time of sampling

Duration of Sampling : 24Hrs. Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr.S. Roy

: As per CPCB guidelines (Volume-I) Method of Sampling

Analysis Started on : 23.08.2025 : 30.08.2025 Analysis Completed on

Repart Verified by

TEST SINDINGS:

Issue Date: August 30, 2025

Page 1 of 1

TC-12347

Equipment used:

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/22, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No : RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.25

Environmental conditions

Weather Condition: Clear

Temperature: Max: 32°C & Min: 26.5°C

Barometric Presure: 754 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni, As. C.H., BaP

SI. No.	The Control of the Co	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	37.1	60 (24 Hourly.)
2	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	46.4	100 (24 Hourly.)
-	Culabur Diavida as SO.	IS 5182 (Part., 23: 2001	Lunim ³	7.02	80 (24 Hourly.)

rly.) urly.) urly.) Sulphur Dioxide as SO₂ IS 5182 (Part - 2): 2001 m/gu 80 (24 Hourly.) 7.90 Nitrogen Dioxide as NO2 IS 5182 (Part - 6): 2006 ug/m° 180 (1 Hourly.) 11.02 µg/m3 Ozone as O₃ IS 5182 (Part - 9): 1974 5. SOP No.: RVB/SOP/01/10 (Indophenol Method) lesue 400 (24 Hourly.) 12.29 µg/m³ Ammonia as NH₃ 6 No. 04, Issue Date: 10.01.2018 IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red 0.722 04 (1 Hourly.) mg/m³ Carbon Monoxide as CO (NDR) spectroscopy 1.0 (24 Hourly.) 0.078 µg/m² Lead as Pb IS 5182 (Part - 22): 2004 8. SOP No.: RVS/SOP/01/15 (AAS Method) Issue No. 04. 20 <5.0 ng/m3 9. Nickel as Ni Issue Date: 10 01 2018 SOP No.: RVB/SOP/01/16 (AAS Welhod) issue No. 04. < 0.25 6.0 10. Arsenic as As ng/m³ Issue Date: 10.01.2018 5.0 <1.0 IS 5182 (Part - 11): 2005, µg/m³ Benzene as CeHe 11 1.0 <0.5 IS 5182 (Part - 12): 2004, ng/m³ Benzo (a) Pyrene

Minimum detection Limit. Nickell 5 ng/m², Arsenic 0.25 ng/m². Benzene: 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m²

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Issue Date : August 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Certificate No. AP-AAQ/25-26/0356A

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. AP-AAQ/25-26/0356A

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha : Near AAQMS # 03

Sampling Location : Near AAQMS # 03 : 19.08 2025 (10.00 A M \-20.08 2025 (10.00 A M \-

Date & Time of sampling : 19.08.2025 (10:00 A.M.)-20.08.2025 (10:00 A.M.)

Duration of Sampling : 24Hrs.
Sampling Plan : : RVB/FM/45
Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 23.08.2025 Analysis Completed on : 30.08.2025

Report Verified by

Equipment used:

TC-12347

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2:5/22, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27°C

Barometric Presure: 754 mmHg

Parameters Tested: PM25, PM19, SO2, NO2, O3, NH3,

CO. Pb. Ni, As, CeHe, BaP

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997 k.40 CFR Part 50, Appendix L.	µg/m³	42.1	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	52.8	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.52	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 8): 2006	µg/m³	12.10	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	13.42	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/51/10 (Indophenal Method) Issue No. 04, Issue Date: 10.01 2018	µg/m³	10.99	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive infra-Red (NOIR) spectroscopy	mg/m ³	0.822	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.500	1.0 (24 Hourly.)
9	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) Issue No. 04, Issue Date: 10:01:2018	ng/m ³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) issue No. 04, Issue Date: 10.01.2018	ng/m³	0.482	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006.	µg/m³	1.24	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m², Arsenic: 0.25 ng/m², Benzene: 1 µg/m² & Benzo(a)Pyrene: 0.5 ng/m²

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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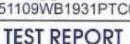
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Issue Date : August 30, 2025

Page 1 of 1

TC-12347

Issued to : M/S. PARADEEP PHOSPHATE LTD.

Certificate No. AP-AAQ/25-25/0357A

Address Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-26/0357A

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha

Sampling Location Near AAQMS # 04

Date & Time of sampling : 20.08.2025 (10:20 A.M.)-21.08.2025 (10:20 A.M.)

Duration of Sampling 24Hrs.
Sampling Plan : RVB/FM/45

Sampling Carried out by : Mr.S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 23.08.2025 Analysis Completed on : 30.08.2025

Report Verified by

Equipment used:

ID No.: RVB/AFDS/PM2,5/22, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

Ambient Fine Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26,06.26

Environmental conditions
Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27.0°C

Barametric Presure: 754 mmHa

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO. Pb, Ni, As, CaHe, BaP

	-		-
TEST	FIN	กเพ	GG.
LEGI	C-113	21114	00.

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	$PM_{2.5}$ (Size $\leq 2.5 \mu m$)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	35.0	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	hð/w ₂	47.7	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	8.31	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	10.13	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) 1974	µg/m³	10.84	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RVB/SOP/01/10 (Indephend Method) issue No. 04, Issue Date: 10:01:2018	µg/m³	10.61	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS : 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m³	0.780	04 (1 Hourly:)
8.	Lead as Pb	IS 5182 (Part - 22); 2004	µg/m³	0.650	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No. RVB/SCP/01/15 (AAS Memod) Issue No. 04. Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No. RVB/SOP/01/16 (AAS Method) Issue No. 04. Issue Date: 10:01:2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12.	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum datection Limit. Nicket 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 ug/m².8. Benzo(a)Pyrene: 0.5 ng/m³.

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

ertificate No. Al	P-FG/25-26/0956	ISSUE Date: September 26,	2025	Page 1 of 1
ssued to	: M/S.	M/S. PARADEEP PHOSPHATE L'	TD.	
ddress	: Para	deep, Odisha.		
our S.O. No.		008829, dtd. 29.07.2025		
ample Description	: Stacl	k Gas / Flue Gas	The second second	ment used:
Sample ID No.	: AP-I	FG/25-26/0956	Stack Monitoring	Kit 07 (Cal. Validity: 04.05.2)
Name of Industry /	Birra.	M/S. PARADEEP PHOSPHATE LTD.		neters Tested
		leep, Odisha	Physical & General	
Date & time of sam	Mark Control of the C	9.2025 (12:10 P.M. to 12:40 P.M.)	Physical & General	s flow, O ₂ , CO ₂ & CO
Sampling Plan & N	V-000 0000	s/FM/45 & IS: 11255 (Part-1,2 & 3)	Chemical:	B 100, 02, 001 00 00
Sampling Carried of	and the same of th	P.P. Mondal	PM	
Analysis Started on	N. Company	9.2025	PM	
Analysis Complete	Dr. (2-1)	9.2025		
4.14	ormation about stack	: Zypmite - 1		
1. Stack conne		: Process Emmision		
2. Emission of		: M.S.		
	construction of stack	Circular.		
 Shape of st 	ack	ermanent platform & ladder : Yes.		
5. Whether st	haracteristics of stac	L -		
The state of the s	he stack from ground I	evel : 30 m		
1. Height of t	f the stack at sampling	point : 1.03 m		
The state of the s		: 12 Nos.		
4. No. of Tray	Characteristic of star			
C. Analysis ! 1. Fuel used		2. Fuel consumption :	- 3.Lo	nd:
D. Environme	ental conditions :	•		
1. Barometric	pressure : 755 mmHg	±	2. Temperature :	34 °C
T. Barometric	Physical Parameters	of Flue Gas :		
	rameters	Test Method	Unit	Results
THE RESERVE TO SERVE THE PARTY OF THE PARTY	ure of emission	IS 11255 : Part 3 : 2008	°C	49
		1S 11255 : Part 3 : 2008	m/sec	18.92
2. Velocity	of gas in duct		2 CARTES - 1	50517
	of gas flow	IS 11255 Part 3 : 2008	NM ³ /hr	30317
- Desulte a	f gaseous emission :			
F. Results o	arameters	Test Method	Unit	Results
			% v/v	< 0.2
SI No Test P	nonoxide	IS 13270 : 1992 (By Orsat)	70.47.4	
Si No Test P			96 v/v	0.2
SI No Test P		1S 13270 : 1992 (By Orsat)	% v/v	
SI No Test P 1. Carbon n 2. Carbon d 3. Oxygen			\$100 B	0.2

Report/erified by

Reviewed & Authorised by

TC-12347

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

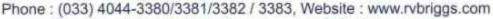
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TAHER MANSION, 1ST FLOOR

9, BENTINCK STREET, KOLKATA - 700 001



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

ssued	ate No. AP-FG/25-26/09	957 Issue Date: September 26, : M/S, M/S, PARADEEP PHOSPHATE L	TD.	Page 1 c	
Addres	• •	: Paradeep, Odisha.			
our S.C		: 5500008829, dtd. 29.07.2025			
	Description	: Stack Gas / Flue Gas	Equ	ipment used:	
sample l		: AP-FG/25-26/0957	Stack Monitoring		
	Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		07 (Cal. Validity: 04.05.26)	
	22.242.042.044.131.142.142.1	Paradeep, Odisha.		meters Tested	
Date & t	ime of sampling	: 20.09.2025 (12:50 P.M. to 01:56 P.M.)	Physical & General		
Samplin	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		s flow, O2, CO2 & CO	
	g Carried out by	: Mr.P.P.Mondal	Chemical :		
	Started on	: 24.09.2025	PM		
Analysis	Completed on	: 26.09.2025			
	General information abou				
	Stack connected to	: Zypmite - 2			
	Emission due to	: Process Emmision			
	Material of construction of	stack : M.S. : Circular.			
4.	Shape of stack				
5.	Whether stack is provided	with permanent platform & ladder: Yes.			
В.	Physical characteristics Height of the stack from g	round level : 30 m			
1.	Diameter of the stack at sa	moline point : 0.85 m			
		12 Nos.			
C	4. No. of Transaction				
	Fuel used :	2. Fuel consumption :	3.Load :		
	Environmental condition				
	Barometric pressure : 755		2. Temperature ;	34 °C	
E.	Results of Physical Para	motors of Flue Gas :			
SI No	Test Parameters	Test Method	Unit	Results	
1.	Temperature of emission		°C	47	
	Commence to the contract of th	IS 11255 : Part 3 : 2008	m/sec	15.09	
2.	Velocity of gas in duct	Service Control		27712	
3.	Quantity of gas flow	IS 11255 : Part 3 : 2008	NM³/hr	2//14	
F.	Results of gaseous emis			last true with	
SI No	Test Parameters	Test Method	Unit	Results	
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	<0.2	
2.	Carbon dioxide	1S 13270 : 1992 (By Orsat)	96 v/v	0.2	
3.	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.8	
	3.00	IS 11255 : Part 1 : 1985	mg/Nm3	32.06	
4	Particulate Matters	462 A CHICAL T CHES. 1 1 1 2 2 5 5 7	311440325500	2.511572	

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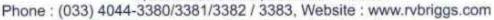
Results relate only to the parameters of the item tested.



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9, BENTINCK STREET, KOLKATA - 700 001



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

ertific	ate No. AP-FG/25-26/0	958	Issue Date: September 26	5, 2025	Page 1 of 1	
ssued	to		PARADEEP PHOSPHATE	LTD.		
		: Paradeep				
Your S.O. No. : 550000			9, dtd. 29.07.2025		CONTROL OF THE PARTY OF THE PAR	
	Description	: Stack Gas			pment used:	
	ID No.	: AP-FG/25-		Stack Monitoring		
lame of	f Industry / Site		ARADEEP PHOSPHATE LTD.		/07 (Cal. Validity: 04.05.26	
		Paradeep, O		The state of the s	neters Tested	
	time of sampling		5 (01:30 P.M. to 01:58 P.M.)	Physical & Genera		
	ng Plan & Method		15 & IS: 11255 (Part-1,2 & 3)	A STORY OF THE PUBLIC AND ADDRESS OF THE PUB	as flow, O ₂ , CO ₂ & CO	
	ng Carried out by	: Mr.P.P.Mc		Chemical:		
	s Sturted on	: 24.09.202:		PM		
Analysis	s Completed on	: 26.09.202	S			
Hilliam S	General information about	ut stack :	***************************************			
	Stack connected to		: Zypmite - 3 : Process Emmision			
2.	Emission due to					
	Material of construction of	stack	: M.S. : Circular.			
4.	Shape of stack	***	1.000			
5.	Whether stack is provided	with permane	ent platform & ladder : Yes.			
В.	Physical characteristics	or stack ;	: 30 m			
1.	Height of the stack from g	round level				
	Diameter of the stack at sa	umpring point	: 8 Nos.			
4.	No. of Traverse point Analysis / Characteristic	of stock God				
		OI Stack Gas	2. Fuel consumption : -	3.Load :		
	Fuel used : Environmental condition		2. 1 001 00150111	- Edward		
1000				2. Temperature :	34°C	
1.	Barometric pressure : 755		in Car :	2, remperature		
E.	Results of Physical Para	imeters of Fit	Test Method	Unit	Results	
SI No	Test Parameters	+	IS 11255 : Part 3 : 2008	°C	35	
1.	Temperature of emission				4.4.	
2.	Velocity of gas in duct		IS 11255 : Part 3 : 2008	m/sec	3.15	
3.	Quantity of gas flow		IS 11255 : Part 3 : 2008	NM ³ /hr	3159	
F.	Results of gaseous emi:	ssion :				
SI No	Test Parameters		Test Method	Unit	Results	
T.	Carbon monoxide		IS 13270 : 1992 (By Orsat)	% v/v	<0.2	
2.	Carbon dioxide		IS 13270 : 1992 (By Orsat)	% v/v	0.2	
3.	Oxygen		IS 13270 : 1992 (By Orsat)	% v/v	19.8	
			IS 11255 : Part 1 : 1985	mg/Nm3	22.35	
4.	Particulate Matters		15 11755 Part 1 1985		And the second of	

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(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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TC-12347

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-FG	/25-26/0959	Issue Date: September 26,	2025		Page 1 of 1
ssued to		M/S. PARADEEP PHOSPHATE L	TD.		
Address		leep, Odisha.			
our S.O. No.		08829, dtd. 29.07.2025	-		
ample Description		Gas / Flue Gas		quipment u	sea:
Sample ID No.		G/25-26/0959	Stack Monitor	ning Kill	Validity: 04.05.26)
Name of Industry / Site		I/S. PARADEEP PHOSPHATE LTD.		trameters T	
		ep, Odisha.	Physical & Ger		esteu
Date & time of sampling		2025 (03:40 P.M. to 04:16 P.M.)	Temp., Velocity	Gas Bow C	CO. # CO.
Sampling Plan & Metho		FM/45 & IS: 11255 (Purt-1,2 & 3)	Chemical:	s, cans more, c	2 colucto
Sampling Carried out by	: Mr.P.	P.Mondal	PM & TF		
Analysis Started on	: 24.09.	7.1/C/3 0/	F (8) 6c 11		
Analysis Completed on	: 26.09				
	ation about stack	: PAP # 1			
 Stack connected 		: Process Emmision			
2. Emission due to	truction of stack	: M.S.			
	truction of stack	: Circular.			
4. Shape of stack	accorded with see	manent platform & ladder : Yes.			
5. Whether stack is	teristics of stack	·			
 Physical character Height of the sta 	ick from ground let	vel : 50 m			
Diameter of the	stack at sampling p	point : 2.7 m			
4. No. of Traverse	point	: 30 Nos.			
5. Height of the sa	mpling point from	GL : 35 m			
C. Analysis / Char	acteristic of stack	Gas / Flue Gas :			
1. Fuel used :		2. Fuel consumption :	- 3	Load:	
D. Environmental					
	sure: 755 mmHg		2. Temperatu	ire: 34 °C	
E. Results of Phy	sical Parameters	of Flue Gas :			
SI No Test Param		Test Method	Unit	F	lesults
1 Temperature of		15 11255 Part 3 2008	°C		43
2. Velocity of gas		1S 11255:Part 3:2008	m/sec		6.28
Quantity of gas		1S 11255 Part 3 2008	NM³/hr		16465
5. Quantity of gar	eous emission :	1,666 (1,000,000,000,000,000,000,000,000,000,0	23134.134		
		Test Method	Unit	Results	Norms
Sl No Test Param	eters	lest Metaba	30.000	234930000	as per CPCB
77 72.020.000.000.00	- 1	1S 13270 : 1992 (By Orsat)	96 v/v	<0.2	Not Specified
1. Carbon mones			% v/v	0.4	Not Specifie
2. Carbon dioxid	9	IS 13270 : 1992 (By Orsat)	4785-25711	19.6	Not Specifie
3. Oxygen		IS 13270 : 1992 (By Orsat)	% v/v	17577	150 max.
4. Particulate Ma	tters	IS 11255 : Part 1 : 1985	mg/Nm3	33	300000000000
5. Total Fluoride		IS 11255 (Part - 5) : 1990	mg/Nm ³	3.96	20 max.
G. Pollution cont	rol device		2		
Details of polls	ation control device	s attached with the stack: Wet Scrub	ber		

Report Perified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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9, BENTINCK STREET, KOLKATA - 700 001

TC-12347

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

ssued	cate No. AP-FG/25-26/0	· M/S M/S P	Issue Date: September 26, PARADEEP PHOSPHATE L	TD.		Page 1 of 1
Addres	7-7-	: Paradeep, (
Your S.	72T (dtd. 29.07.2025			
A 101 BAS	Description	: Stack Gas /		E	quipment :	ised:
	ID No.	: AP-FG/25-2	6/0960	Stack Monito		
	f Industry / Site	M/S, M/S, PA	RADEEP PHOSPHATE LTD.			Validity: 04.05.26
		Paradeep, Odi:			arameters I	"ested
Date &	time of sampling		04:50 P.M. to 05:12 P.M.)	Physical & Ge		
Samplin	ng Plan & Method		& IS: 11255 (Part-1,2 & 3)	1000	y, Gas flow, (O2, CO2 & CO
	ng Carried out by	: Mr.P.P.Mon	dal	Chemical:		
	s Started on	: 24.09.2025		PM & TF		
	s Completed on	: 26.09.2025				
	General information abou	ut stack :				
	Stack connected to		: PAP # 2			
	Emission due to		: Process Emmision			
	Material of construction of	stack	; M.S. : Circular.			
	Shape of stack	a Peter announcement man				
5.	Whether stack is provided Physical characteristics	with permanen	piatiorii & tadder : res.			
	Height of the stack from g		: 50 m			
	Diameter of the stack at sa		: 1.0 m			
	No. of Traverse point	milying point	: 12 Nos.			
	Height of the sampling poi	int from GL	12 17021			
C.	Analysis / Characteristic	of stack Gas /	Flue Gas :			
1.	Fuel used :		2. Fuel consumption :	4	Load:	
D.	Environmental condition	5:				
T.	Barometric pressure: 755	mmHg		2. Temperatu	re: 32 °C	
E.	Results of Physical Para		Gas:			
SLNo			Test Method	Unit	- 1	Cesults
1.	Temperature of emission		IS 11255 : Part 3 : 2008	°C		53
2.	Velocity of gas in duct		IS 11255 Part 3:2008	m/sec		13.22
3.	Quantity of gas flow		15 11255:Part 3:2008	NM ³ /hr		32879
F.	Results of gaseous emis	sion:	-778 (T.) MOLENT PER EN PORTO	23,04 13.00		2,44,17
SI No			Test Method	Unit	Results	Norms
51.50	lest Parameters		lest Method	Can	Acounts	as per CPCB
1.	Carbon monoxide	IS	13270 : 1992 (By Orsat)	%-x/v	< 0.2	Not Specified
2.	Carbon dioxide	15	13270 : 1992 (By Orsat)	96 v/v	0.2	Not Specified
3.	Oxygen	IS	13270 : 1992 (By Orsat)	% v/v	19.6	Not Specified
4.	Particulate Matters		IS 11255 : Part 1 : 1985	mg/Nm3	28	150 max.
5.	Total Fluoride	19	S 11255 (Part - 5): 1990	mg/Nm³	3.20	20 max.
1 100	TOTAL LIBORIDE	1	- Indiana de la companya del companya de la companya del companya de la companya	1 (100)		

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Technical Manager
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TC-12347

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

ertifica	ate No. AP-FG/25-26/09	961 Issue Date: September 26, 2	2025		Page 1 of 1	
Issued to		: M/S. M/S. PARADEEP PHOSPHATE LT	D.			
Address		: Paradeep, Odisha.				
our S.C		5500007609, dtd. 16.08.2024				
Sample Description		: Stack Gas / Flue Gas	Stack Monito	quipment u	seur	
ample I		: AP-FG/25-26/0961 : M/S. M/S. PARADEEP PHOSPHATE LTD.	Stack Monito	MIC/07/Cal. V	Validity: 04.05.26)	
vame of	Industry / Site	Paradeep, Odisha.		arameters T		
	ime of sampling	: 18.09.2025 (11:30 A.M. to 12:12 P.M.)	Physical & Ge			
	g Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	Temp., Velocit		02, CO2 & CO	
Sampling	g Carried out by	: Mr.P.P. Mondal	Chemical:			
Analysis	Started on	: 24.09.2025	PM, NH, & 7	TF		
Analysis	Completed on	: 26.09.2025	500000000000000000000000000000000000000			
A. (General information abou	ut stack :				
2.5	Stack connected to	: DAP - A				
	Emission due to	: Process Emmision				
	Material of construction of					
4.	Shape of stack	; Circular.				
	Whether stack is provided	with permanent platform & ladder : Yes.				
	Physical characteristics Height of the stack from gr					
	Diameter of the stack from gr	Martin and To				
The second secon		30 Nos.				
No. of Traverse point Height of the sampling point		(a) (b) (c) (c) (c) (c)				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :				
	Fuel used :	2. Fuel consumption :		3.Load :		
D.	Environmental condition	s:				
1.	Barometric pressure: 755	mmHg	2. Temperatu	ire: 34 °C		
E.	Results of Physical Para	meters of Flue Gas :				
SINO	Test Parameters	Test Method	Unit	F	tesults	
L	Temperature of emission	IS 11255 : Part 3 : 2008	°C		49	
2.	Velocity of gas in duct	IS 11255 Part 3:2008	m/sec		12.91	
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	2	44106	
E.	Results of gaseous emis	ssion:	7			
SI No	Test Parameters	Test Method	Unit	Results	Norms as per CPCB	
1.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified	
2	Carbon dioxide	IS 13270 : 1992 (By Orsat)	56 V/V	0.4	Not Specified	
3.	Oxygen	(S 13270 : 1992 (By Oesat)	% v/v	19.4	Not Specified	
5.7971	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	57.0	150 max.	
4		IS 11255 (Part - 5): 1990	mg/Nm ³	2.20	< 10	
5.	Total Fluoride		muNm)			

Read Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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9. BENTINCK STREET, KOLKATA - 700 001

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

	cate No. AP-FG/25-26/09	962 A Issue Date: September 26, 2	2025		Page 1 of
ssued	i to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Addre	SS	: Paradeep, Odisha.			
	.O. No.	: 5500008829, dtd. 29.07.2025			
Sample Description		: Stack Gas / Flue Gas		Equipment (sed:
Sample ID No.		: AP-FG/25-26/0962 A	Stack Monito		
Vame o	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.			Validity: 04.05.26
	Merchania di Propinsi	Paradeep, Odisha.		Parameters 1	esteil
	time of sampling	: 18.09.2025 (12:25 P.M. to 01:04 P.M.)	Physical & G	eneral :	
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		ty, Gas flow,	O ₂ , CO ₂ & CO
	ng Carried out by	: Mr.P.P. Mondal	Chemical:		
	is Started on	: 24.09.2025	PM, NH ₂ &	11	
-	is Completed on	: 26.09.2025			
A.	General information abou	DAP - B			
1.	Stack connected to Emission due to	Process Emmission			
2.	Material of construction of				
4.	Shape of stack	Circular.			
5.		with permanent platform & ladder : Yes.			
В.	Physical characteristics				
1.	Height of the stack from gr				
3.	Diameter of the stack at sar				
4.	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling poi				
C.	Analysis / Characteristic				
1	Fuel used	2. Fuel consumption :	ion : 3.Load :		
D.	Environmental conditions				
1.	Barometric pressure: 755		2. Temperate	ore - 34 °C	
E	Results of Physical Parar		z. remperan	310.21.6	
SI No		Test Method	Unit	T.	
	Test tarameters				tesuits
	Temperature of emission		36		tesults 56
1.	Temperature of emission	IS 11255 : Part 3 : 2008	*C		56
1.	Velocity of gas in duct	IS 11255 : Part 3 : 2008 IS 11255:Part 3:2008	m/sec		56 15.74
1. 2. 3.	Velocity of gas in duct Quantity of gas flow	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008			56
1. 2. 3. E.	Velocity of gas in duct Quantity of gas flow Results of gaseous emis	IS 11255 : Part 3 : 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2008 sion :	m/sec NM ⁵ /hr	2	56 15.74 84382
1. 2. 3.	Velocity of gas in duct Quantity of gas flow Results of gaseous emis	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008	m/sec		56 15.74 84382 Norms
1. 2. 3. E.	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 sion : Test Method	m/sec NM³/hr Unit	Results	56 15.74 84382 Norms as per CPCB
1. 2. 3. E.	Velocity of gas in duct Quantity of gas flow Results of gaseous emis	IS 11255 : Part 3 : 2008 IS 11255:Part 3:2008 IS 11255:Part 3:2008 sion :	m/sec NM ⁵ /hr	2	56 15.74 84382 Norms as per CPCB Not Specifies
1 . 2 . 3 . E. SI No	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 sion : Test Method	m/sec NM³/hr Unit	Results	Norms as per CPCB Not Specifie Not Specifie
1. 2. 3. E. SI No	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Carbon dioxide	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 Sion : Test Method IS 13270 : 1992 (By-Orsat)	m/sec NM³/hr Unit	Results	Norms as per CPCB Not Specifie Not Specifie
1 . 2 . 3 . E. SI No	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide	IS 11255 : Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 IS 11255: Part 3 : 2008 sion : Test Method IS 13270 : 1992 (By Orsat) IS 13270 : 1992 (By Orsat)	m/sec NM ³ /hr Unit	Results <0.2 0.4	Norms as per CPCB Not Specifie Not Specifie
1. 2. 3. E. SI No	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Carbon dioxide Oxygen Particulate Matters	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Sion : Test Method IS 13270 : 1992 (By Orsat) IS 11255 : Part 1 : 1985	m/sec NM³/hr Unit %6 v/v %6 v/v %6 v/v mg/Nm3	Results <0.2 0.4 19.6	Norms as per CPCB Not Specifie Not Specifie Not Specifie
1 . 2 . 3 . E. SI No	Velocity of gas in duct Quantity of gas flow Results of gaseous emiss Test Parameters Carbon monoxide Carbon dioxide Oxygen	IS 11255 : Part 3 : 2008 sion : Test Method IS 13270 : 1992 (By Orsat) IS 13270 : 1992 (By Orsat) IS 13270 : 1992 (By Orsat)	m/sec NM ³ /hr Unit % v/v % v/v % v/v	<0.2 0.4 19.6 58.2	Norms as per CPCB Not Specifies Not Specifies Not Specifies Not Specifies 150 max.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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ANALYTICAL CONSULTING & TECHNICAL CHEMISTS

(AN ISO 9001:2015 & ISO 45001 : 2018 CERTIFIED COMPANY)
TAHER MANSION, 1ST FLOOR

TC-12347

9. BENTINCK STREET, KOLKATA - 700 001

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Your S.O. No. 5500008829, del. 29.07.2025	Certifi	cate No. AP-FG/25-26/09	963 Issue Date: September 26, 2	2025		Page 1 of
Sample Description Stack Gas Flue Gas Sample DNo. AP FC/G2-52-60/963 Sample DNo. AP FC/G2-52-60/963 AP FC/G2-	ssued	to		D.		
Sample Description Stack Gas / Flue Gas Sample ID No. :AP-FG/25-26/0963 Stack Monitoring & Stack Gas / Flue Gas PM. Date & time of sampling 18.09.2025 (03:20 P.M. to 03:56 P.M.) Parameters Tested Physical & General : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity of gas flow in the provided with permanent platform & Indiana,	Address Your S.O. No.		Color and the co			
Sample ID No. AP-FG/25-26/0963 Mrs. Mrs. Mrs. PRADEEP PHOSPHATE LTD. Paradeep, Odisha.						
Name of Industry / Site	Sample Description					used:
Paradeep, Odisha Parameters Tested						and the second s
Date & time of sampling 18.09.2025 (03:20 P.M. to 03:56 P.M.) Physical & General : Temp. Velocity, Gas flow, O., CO., & C. Sampling Plan & Method RVB/FM/45 & IS: 11255 (Part-1.2 & 3) Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity, Gas flow, O., CO., & C. Chemical : Temp. Velocity Gas flow, O., CO., & C. Chemical : Temp. Velocity Gas flow, O., CO., & C. Chemical : Temp. Velocity Gas flow in the process temp. Temp. Velocity Gas flow in the process temp. Temp. Velocity Gas flow in the process temp. Temp. Velocity of gas flow in the process temp. Temp. Velocity of gas flow in the process temp. Temp. Velocity of gas flow in the process temp. Test Method in the process temp. T	Name o	f Industry / Site				
Sampling Plan & Method		2 2 2		The second second second		esteu
Chemicul Chemicul Chemicul PM, NH ₃ & TF						0.00.00
Analysis Started on : 24.09.2025 PM, NH ₃ & TF					ty, this now,	02, 002 & 00
Analysis Completed on 26.09.2025					TE	
A.				PM, WHI &	11.	
1. Stack connected to DAP - C			A STATE OF THE STA	1		
2						
Material of construction of stack						
Shape of stack Circular			20.00.00.00.00.00.00.00.00.00.00.00.00.0			
Second						
B. Physical characteristics of stack						
1. Height of the stack from ground level 1.50 m 2. Sampling Point 1.0 Chimney 1.2.8 m 3.0 Nos. 3.0 Nos. 3.5 m 4. No. of Traverse point 1.30 Nos. 3.5 m 3						
3. Diameter of the stack at sampling point : 2.8 m 4. No. of Traverse point : 30 Nos. 5. Height of the sampling point from GL : 35 m C. Analysis I Characteristic of stack Gas / Flue Gas : 1. Fuel used :		Company of the Compan	A STATE OF THE PARTY OF THE PAR			
4. No. of Traverse point : 30 Nos. 5. Height of the sampling point from GL : 35 m C. Analysis I Characteristic of stack Gas / Flue Gas: 2. Fuel consumption:	2.					
5. Height of the sampling point from GL : 35 m C. Analysis / Characteristic of stack Gas / Flue Gas :	3.	Diameter of the stack at sar	npling point : 2.8 m			
C. Analysis / Characteristic of stack Gas / Flue Gas : 2. Fuel consumption :	4.	No. of Traverse point	: 30 Nos.			
1. Fuel used : 2. Fuel consumption : 3. Load : D. Environmental conditions 1. Barometric pressure 755 mmHg 2. Temperature 34 °C E. Results of Physical Parameters of Flue Gas : SI No Test Parameters Test Method Unit Results 1. Temperature of emission 15 11255 Part 3 2008 °C 64 2. Velocity of gas in duct 15 11255 Part 3 2008 m/sec 16,74 3. Quantity of gas flow 15 11255 Part 3 2008 NM³/hr 300377 E. Results of gaseous emission : SI No Test Parameters Test Method Unit Results Nor as per C 1. Carbon monoxide 18 13270 1992 (By Orsat) % v/v <0.2 Not Sp 2. Carbon dioxide 18 13270 1992 (By Orsat) % v/v 0.2 Not Sp 3. Oxygen 15 13270 1992 (By Orsat) % v/v 19.8 Not Sp 4. Particulate Matters 15 11255 Part 1 1985 mg/Nm3 55 150 r 5. Total Fluoride 18 11255 (Part - 5) 1990 mg/Nm³ 2.05 <1 6. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm³ 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm² 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm² 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm² 2.05 <1 4. Anymonic as NH Methods of Air Sampling & Analysis, 3rd Ed may Nm² 2.05 <1 4. Anym	5.	Height of the sampling poin	nt from GL : 35 m			
D. Environmental conditions	C.	Analysis / Characteristic	of stack Gas / Flue Gas :			
Barometric pressure : 755 mmHg	1.				3.Load :	
E. Results of Physical Parameters of Flue Gas : SI No Test Parameters	D,					
SI No Test Parameters	L			2. Temperati	ure:34°C	
1. Temperature of emission 15 11255 Part 3 2008 *C 64 2. Velocity of gas in duct 15 11255 Part 3 2008 m/sec 16.74 3. Quantity of gas flow 15 11255 Part 3 2008 NM³/hr 300377 E. Results of gaseous emission : SI No Test Parameters T e s t M e t b o d Unit Results Nor as per C 1. Carbon monoxide 18 13270 1992 (By Orsat) *% v/v <0.2	E.	Results of Physical Paran	neters of Flue Gas :	- YA - 141 M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MINES CO.	
2. Velocity of gas in duct IS 11255 Part 3 2008 m/sec 16.74 3. Quantity of gas flow IS 11255 Part 3 2008 NM³/hr 300377 E. Results of gaseous emission : SI No Test Parameters Test Method Unit Results Nor as per C 1. Carbon monoxide IS 13270 1992 (By Orsat) % v/v <0.2	SINO	Test Parameters	Test Method	Unit	ŀ	Results
3. Quantity of gas flow IS 11255-Part 3-2008 NM ³ /hr 300377 E. Results of gaseous emission: SI No Test Parameters Test Method Unit Results Nor as per C 1. Carbon monoxide IS 13270 - 1992 (By Orsat) % v/v < 0.2 Not Sp 2. Carbon dioxide IS 13270 - 1992 (By Orsat) % v/v 0.2 Not Sp 3. Oxygen IS 13270 - 1992 (By Orsat) % v/v 19.8 Not Sp 4. Particulate Matters IS 11255 Part 1 - 1985 mg/Nm3 55 150 r 5. Total Flooride IS 13250 (Part - 5) 1990 mg/Nm³ 2.05 < 1 Methods of Air Sampling & Analysis, 3rd Ed.	1.	Temperature of emission	15 11255 : Part 3 : 2008	*C		64
3. Quantity of gas flow IS 11255:Part 3:2008 NM³/hr 300377 E. Results of gaseous emission: SI No Test Parameters Test Method Unit Results Nor as per C 1. Carbon monoxide IS 13270 : 1992 (By Orsat) % v/v < 0.2 Not Sp 2. Carbon dioxide IS 13270 : 1992 (By Orsat) % v/v 0.2 Not Sp 3. Oxygen IS 13270 : 1992 (By Orsat) % v/v 19.8 Not Sp 4. Particulate Matters IS 11255: Part 1 : 1985 mg/Nm3 55 150 r 5. Total Flooride IS 11255 (Part - 5): 1990 mg/Nm³ 2.05 < 1 Methods of Air Sampling & Analysis, 3rd Ed.	2.	Velocity of gas in duct	IS 11255 Part 3 2008	m/sec		16.74
E. Results of gaseous emission: SI No		DOWN - CO. ST.	IS 11255:Part 3-2008	1200000000	3	00377
Test Parameters	_		ion :	15554		
as per C	and the latest designation of			Linit 1	Results	Norms
1. Carbon monoxide IS 13270 1992 (By Orsat) % v/v <0.2	31 30	test Parameters	rest steraou	· · · · ·	Resums	1 Common State Sta
2. Carbon dioxide IS 13270 : 1992 (By Orsat) % v/v 0.2 Not Sp 3. Oxygen IS 13270 : 1992 (By Orsat) % v/v 19.8 Not Sp 4. Particulate Matters IS 11255 : Part 1 : 1985 mg/Nm3 55 150 r 5. Total Fluoride IS 11255 (Part - 5) : 1990 mg/Nm³ 2.05 <1	1	Curbon monoy lda	IS 13220 - 1993 (By Decen	MC 4/6/	<0.2	Not Specified
3. Oxygen 15 13270 : 1992 (By Orsat) % v/v 19.8 Not Sp 4. Particulate Matters 15 11255 : Part 1 : 1985 mg/Nm3 55 150 : 5. Total Fluoride 15 11255 (Part - 5): 1990 mg/Nm³ 2.05 < 1				10000000		
4. Particulate Matters 1S 11255 : Part 1 : 1985 mg/Nm3 55 150 s 5. Total Fluoride 1S 11255 (Part - 5) : 1990 mg/Nm³ 2.05 <1 6. Ammonia as NH Methods of Air Sampling & Analysis, 3rd Ed maximal 155 11 300 s		######################################		10000000		Not Specified
5. Total Fluoride IS 11255 (Part - 5): 1990 mg/Nm ³ 2.05 <1 6. Ammonia as NH Methods of Air Sampling & Analysis, 3rd Ed. (155.11 300 a)				777.000	1000	Not Specified
6 Ammonia as NH Methods of Air Sampling & Analysis, 3rd Ed		Particulate Matters			55	150 may.
6 1 Ammonia as N44	5.	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm3	2.05	< 10
6. Ammonia as NP ₁ (Indophenol Method), Method 401 mg/Nm 132.11 3001	6.	Ammonia as NH ₂		mg/Nm³	155.11	300 max.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT >-

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 Results relate only to the parameters of the item tested.



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9, BENTINCK STREET, KOLKATA - 700 001

TC-12347

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Certific	cate No. AP-FG/25-26/09	964 Issue Date: September 26, 3	2025		Page 1 of 1
Issued	to	: M/S. M/S. PARADEEP PHOSPHATE LT	D.		
Address		: Paradeep, Odisha.			
Your S.	35.7. F1.1 FE T.	: 5500008829, dtd. 29.07.2025			
	Description	: Stack Gas / Flue Gas		Equipment 1	ised:
	ID No.	: AP-FG/25-26/0964	Stack Monito		Validity: 04.05.26
vame o	f Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha.	The second secon	arameters I	the beautiful property of the contract of the party of the last
Date #	time of sampling	: 18.09.2025 (04:30 P.M. to 05:06 P.M.)	Physical & Go	CHICAL MODEL NOT BEEN	E-MAIN
	ng Plan & Method	: RVB/FM/45 & 15: 11255 (Part-1.2 & 3)			0, 00, & 00
	ng Curried out by	: Mr.P.P. Mondal	Chemical:	gr	
	is Started on	: 24.09.2025	PM, NH, &	TE	
	s Completed on	: 26.09.2025	0.0000000000000000000000000000000000000		
	General information abou	it stack :			
1.	Stack connected to	: DAP - D			
2	Emission due to	: Process Emmission			
	Material of construction of	stack M.S.			
	Shape of stack	: Circular.			
		with permanent platform & ladder: Yes.			
	Physical characteristics				
	Height of the stack from gre				
	Diameter of the stack at sar				
	No. of Traverse point	: 30 Nos.			
5.	Height of the sampling poin Analysis / Characteristic	nt from GL : 35 m			
1.	Fuel used :	2. Fuel consumption :	-	3.Load : +++	
D.	Environmental condition	<u>s :</u>			
	Barometric pressure: 755 r		2. Temperate	ire: 34°C	
E.	Results of Physical Parar	meters of Flue Gas :			
SINo	Test Parameters	Test Method	Unit	F	lesults
1.	Temperature of emission	IS 11255 : Part 3 : 2008	°C		61
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec		16.71
3.	Quantity of gas flow	1S 11255:Part 3:2008	NM ³ /br	2	96883
E.	Results of gaseous emis	sion:			
SI No	Test Parameters	Test Method	Unit	Results	Norms as per CPCB
1	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2	Not Specified
2.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2	Not Specified
3.	Oxygen	15 13270 : 1992 (By Orsat)	% v/v	19.6	Not Specified
4	Particulate Matters	IS 11255 : Part 1 : 1985	mg/Nm3	53.8	150 max.
5	Total Fluoride	IS 11255 (Part - 5): 1990	mg/Nm³	2.78	< 10
6.	Ammonia as NH ₃	Methods of Air Sampling & Analysis, 3rd Ed. (Indophenol Method), Method 401	mg/Nm³	109.85	300 max
-	PANTAL SON	(indopnenoi Meniod), Meniod 401	TANK COURT	No.	
F.	Pollution control device	devices attached with the stack : Wet Scrubber			

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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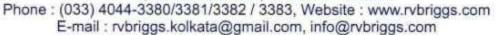
^{*} Results relate only to the parameters of the item tested.



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CIN: U51109WB1931PTC007007



TEST REPORT

	cate No. AP-FG/25-26/0965	Issue Date: September 26	5, 2025		Page 1 of 1	
ssued	i to	: M/S. M/S. PARADEEP PHOSPHA	TE LTD.			
Addre	SS	: Paradeep, Odisha.				
	.O. No.	: 5500008829, dtd. 29.07.2025				
Sample	Description	Stack Gas / Flue Gas		Equipme	nt used:	
	ID No.	: AP-FG/25-26/0965	Stack Monitoring	g Kit		
	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LT	ID No.: RVB/SMF	C/07(Cal. Valid	lity: 04.05.26)	
		Paradeep, Odisha		Paramete	rs Tested	
Oute &	time of sampling	: 19.09.2025 (11:00 A.M. to 11:40 A.M.	Physical & Gener			
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 &			10 ₂ & CO	
	ng Carried out by	: Mr P.P. Mondal	Chemical:	Weetle-Overomod	10.0000 (PCA)	
	is Started on	: 24.09.2025	SO2, NO2,HC &	PM		
	is Completed on	: 26.09.2025				
A.	General information about sta		-			
1.	Stack connected to	: Diesel Generator Set	- 2			
2.	Emission due to	: Burning of H.S.D				
3.	Material of construction of stack					
4.	Shape of stack	: Circular,				
5	Whether stack is provided with p	sermanent platform & ladder : Yes				
6.	Generator capacity	: I MVA				
В.	Physical characteristics of sta	ck:				
1.	Height of the stack from ground	level : 30.0 m				
2.	Sampling Point	: Chimney				
3	Diameter of the stack at samplin	g point : 0.4 m				
4.	No. of Traverse point	: 08 Nos				
C.	Analysis / Characteristic of sta Fuel used H.S.D.	ack Gas / Flue Gas :	2. Fuel consump	tion :		
D.	Environmental conditions :					
1.	Barometric pressure: 755 mmH	p.	2. Temperature :	34 °C		
	Finding of Physical Parameter		z. remperume	47.00		
E.	The state of the s	The state of	I mit		Daculte	
SI No	The state of the s	Test Method	Unit		Results	
SI No	Temperature of emission	1S 11255 : Part 3 : 2008	°C		238	
SI No	Temperature of emission Velocity of gas in duct	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008	°C m/sec		238 20.29	
SI No 1 . 2 . 3 .	Temperature of emission Velocity of gas in duct Quantity of gas flow	IS 11255 Pert 3 2008 IS 11255 Pert 3 2008 IS 11255 Pert 3 2008	°C		238	
SI No 1 . 2 . 3 . F.	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission	IS 11255 Part 3 2008 IS 11255 Part 3 2008 IS 11255 Part 3 2008	°C m/sec NM*/hr		238 20.29 5160	
1 . 2 . 3 . F.	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission	IS 11255 Pert 3 2008 IS 11255 Pert 3 2008 IS 11255 Pert 3 2008	°C m/sec	Results	238 20.29 5160 Norms as per Environment	
SI No 1 2 3 F. SI No	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters	IS 11255 Part 3 2008 IS 11255 Part 3 2008 IS 11255 Part 3 2008	°C m/sec NM*/hr	Results	238 20,29 5160 Norms as per Environment (Protection) Amendment Rol 2002, for > 800 km	
SI No 1	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008	°C m/sec NM²/hr Unit		238 20.29 5160 Norms as per Environment (Protection) Amendment Rul	
SI No 1 2 3 F. SI No	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Test Method IS 11255 : Part 2 : 1985	"C m/sec NM ³ /hr Unit mg/Nm ³	103.79	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified	
SI No 1 2 3 F. SI No 1 2	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Test Method IS 11255 : Part 2 : 1985	"C m/sec NM ² /hr Unit mg/Nm ² mg/Nm ³ gm/kw-hr	103.79 148.46	238 20,29 5160 Norms as per Environment (Protection) Amendment Rol 2002, for > 800 km	
SI No 1	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005	"C m/sec NM*/hr Unit mg/Nm* mg/Nm* gm/kw-hr gm/kw-hr	103.79 148.46 0.96 0.01	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified	
SI No 1 2 3 5 F. SI No 1 2 3	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005 EPA Method III	"C m/sec NM*/hr Unit mg/Nm* mg/Nm* gm/kw-hr mg/kw-hr mg/Nm*	103.79 148.46 0.96 0.01 2.31	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified	
SI No 1 2 3 F. SI No 1 2	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005	"C m/sec NM*/hr Unit mg/Nm* mg/Nm* gm/kw-hr mg/Nm* mg/Nm*	103.79 148.46 0.96 0.01 2.31 146	238 20.29 5160 Norms as per Environment (Protection) Amendment Rol 2002, for > 800 km Not Specified	
SI No 1 2 3 5 F. SI No 1 2 3	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 : Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005 EPA Method 18 USEPA 10:2017	"C m/sec NM*/hr Unit mg/Nm* mg/Nm* gm/kw-hr mg/Nm* mg/Nm* gm/kw-hr	103.79 148.46 0.96 0.01 2.31 146 0.94	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified	
SI No 1	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC Carbon monoxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 : Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005 EPA Method III USEPA 10:2017 IS 13270 : 1992 (By Orsat)	"C m/sec NM*/hr Unit ug/Nm* mg/Nm* gm/kw-hr mg/Nm* mg/Nm* gm/kw-hr % v/v	103.79 148.46 0.96 0.01 2.31 146 0.94 <0.2	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified 4.0 3.5	
SI No 1 2 3 F. SI No 1 2 3 4 5	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC Carbon monoxide Carbon dioxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005 EPA Method III USEPA 10:2017 IS 13270 : 1992 (By Orsat) IS 13270 : 1992 (By Orsat)	mg/Nm² mg/Nm² mg/Nm² gm/kw-hr mg/Nm² mg/Nm² gm/kw-hr mg/Nm² mg/Nm² mg/Nm² gm/kw-hr % v/v	103.79 148.46 0.96 0.01 2.31 146 0.94 <0.2 7.2	238 20.29 5160 Norms as per Environment (Protection) Amendment Rol 2002, for > 800 km Not Specified	
SI No 1 2 3 F. SI No 1 2 3	Temperature of emission Velocity of gas in duct Quantity of gas flow Results of gaseous emission Test Parameters Sulphur dioxide Nitrogen dioxide Total Hydrocarbon as HC Carbon monoxide	IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 IS 11255 : Part 3 : 2008 : Test Method IS 11255 : Part 2 : 1985 IS 11255 : Part 7 : 2005 EPA Method III USEPA 10:2017 IS 13270 : 1992 (By Orsat)	"C m/sec NM*/hr Unit ug/Nm* mg/Nm* gm/kw-hr mg/Nm* mg/Nm* gm/kw-hr % v/v	103.79 148.46 0.96 0.01 2.31 146 0.94 <0.2	238 20.29 5160 Norms as per Environment (Protection) Amendment Rul 2002, for > 800 km Not Specified 4.0 3.5	

Report Verified by

Gayon

Reviewed & Authorised by

(S. Mondal) Sr. Chemist

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

END OF TEST REPORT

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TAHER MANSION, 1ST FLOOR

9, BENTINCK STREET, KOLKATA - 700 001

Phone: (033) 4044-3380/3381/3382 / 3383, Website: www.rvbriggs.com

E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com CIN: U51109WB1931PTC007007



TEST REPORT

cerun	cate No. AP-FG/25-26/0			Page 1 of 1		
Issued to		: M/S. M/S. PARADEEP PHOSPHATE	LTD.			
Address		: Paradeep, Odisha.				
	.O. No.	: 5500008829, dtd. 29.07.2025				
	Description	: Stack Gas / Flue Gas	Service Constitution and Constitution of the C	ipment used:		
	ID No.	: AP-FG/25-26/0966 A	Stack Monitoring			
Name o	of Industry / Site	: M/S. M/S. PARADEEP PHOSPHATE LTD.		707 (Cal. Validity: 04.05.26		
	S S B	Paradeep, Odisha.		meters Tested		
	time of sampling	: 10.09.2025 (02:30 P.M. to 03:14 P.M.)	Physical & Gener			
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)	CONTRACTOR STATE OF THE PERSON	ias flow, O2, CO2 & CO		
	ng Carried out by	; Mr.P.P.Mondal : 24.09.2025	Chemical: SO ₂ & Acid Mist			
	is Started on is Completed on	: 24.09.2025	502 & Acid Mist			
	General information abo					
1.	Boiler connected to	: SAP - B				
2.	Emission due to	: Process Emission				
3.	Material of construction of					
4.	Shape of stack	: Circular.				
5.		with permanent platform & ladder : Yes.				
B.	Physical characteristics					
1.	Height of the stack from g					
3.	Diameter of the stack at sa					
4.	No. of Traverse point	: 30 Nos.				
5.	Height of the sampling po	int from GL : 35 m				
C.	Analysis / Characteristic	of stack Gas / Flue Gas :				
1.	Fuel used :	2. Fuel consumption :	- 3.Lc	ad :		
D,	Environmental condition	5.1				
1.	Barometric pressure: 755	mmHg	2. Temperature :	34 °C		
E.	Results of Physical Para	meters of Flue Gas :				
SI No	Test Parameters	Test Method	Unit	Results		
1.	Temperature of emission	IS 11255 : Part 3 : 2008	*C	68		
2.	Velocity of gas in duct	IS 11255:Part 3:2008	m/sec	13.32		
3.	Quantity of gas flow	IS 11255:Part 3:2008	NM ³ /hr	232761		
F.	Results of gaseous emis	sion:				
St No	Test Parameters	Test Method	Unit	Results		
To.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm³	794.90		
2.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	% v/v	< 0.2		
3.	Carbon dioxide	15 13270 : 1992 (By Orsat)	% v/v	0.2		
4 -	Oxygen	IS 13270 : 1992 (By Orsat)	% v/v	19.4		
	Acid Mist	SOP No.: RVB/SOP/01/20,	mg/Nm ³	33.07		
5.		Issue No. 04, Issue Date 10.01.2018	100000000000000000000000000000000000000	7557700		

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007



Certifi	cate No. AP-FG/25-26/0			Page 1 of		
ssued	l to	: M/S. M/S. PARADEEP PHOSPHATE	E LTD.			
Address Your S.O. No.		: Paradeep, Odisha.				
		: 5500008829, did. 29.07.2025				
	Description	: Stack Gas / Flue Gas		pment used:		
	ID No.	: AP-FG/25-26/0967A	Stack Monitoring	z.Kil 707 (Cal. Validity: 04.05.2)		
vame o	of Industry / Site	M/S. M/S. PARADEEP PHOSPHATE LTD.		meters Tested		
Aug. 6.	time of sampling	Paradeep, Odisha. : 19.09.2025 (03:40 P.M. to 04:16 P.M.)	Physical & Genera	The state of the s		
	ng Plan & Method	: RVB/FM/45 & IS: 11255 (Part-1,2 & 3)		as flow, O ₂ , CO ₂ & CO		
	ng Carried out by	: Mr.P.P.Mondal	Chemical:			
	is Started on	: 24.09.2025	SO ₂ & Acid Mist			
	is Completed on	: 26.09.2025	ARCES SCONOVANCES			
	General information abou	ut stack :				
1.	Boiler connected to	: SAP * C				
	Emission due to	; Process Emission				
	Material of construction of	stack : M.S.				
	Shape of stack	: Circular.				
5.		with permanent platform & ladder: Yes.				
В.	Physical characteristics					
1.	Height of the stack from g					
3.	Diameter of the stack at sa					
4.	No. of Traverse point	: 30 Nos.				
	Height of the sampling poi	of stack Gas / Flue Gas ;				
C.	Fuel used ;	2. Fuel consumption :	210	3.Lond :		
D.	Environmental condition		3-60	and -		
I.	Barometric pressure: 755	The state of the s	2. Temperature :	24 90		
_	Results of Physical Para		2. remperature	34 C		
E. SI No	Test Parameters	Test Method	Unit	Results		
70.00	Temperature of emission	IS 11255 : Part 3 : 2008	°C	69		
1.		The state of the s		1990		
2.	Velocity of gas in duct	IS 11255 Part 3 2008	m/sec	6.63		
3.	Quantity of gas flow	15 11255 Part 3:2098	NM ³ /hr	115250		
F.	Results of gaseous emis	sion:				
Si No	Test Parameters	Test Method	Unit	Results		
1.	Sulphur dioxide	IS 11255 : Part 2 : 1985	mg/Nm ³	487.84		
2.	Carbon monoxide	IS 13270 : 1992 (By Orsat)	96 v/v	<0.2		
3.	Carbon dioxide	IS 13270 : 1992 (By Orsat)	% v/v	0.2		
4.	Oxygen	1S 13270 : 1992 (By Orsat)	% v/v	19.4		
	Acid Mist	SOP No. RVB/SOP/01/20, Issue No. 04, Issue Date 10/01/2018	mg/Nm ³	31.12		
5.		The state of the country of the state of the	41136747444			

Report prified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager
Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

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AMBIENT AIR



Issued to

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CIN: U51109WB1931PTC007007



Certificate No. AP-AAQ/25-26/0451 Issue Date : September 25, 2025

: M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description Ambient Air

Sample ID No. AP-AAQ/25-26/0451

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha Sampling Location Near AAQMS # 01

Date & Time of sampling 19.09.2025 (10:50 A.M.)-20.09.2025 (10:50 A.M.)

Duration of Sampling 24Hrs.
Sampling Plan : RVB/FM/45

Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on 22.09.2025

Analysis Completed on 25.09.2025

TC-12347

Page 1 of 1

Equipment used:

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Respenible Dust Sampler

ID No.: RVB/RDS/APM450/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34°C & Min: 27.0°C Barometric Presure: 755 mmHg

artificate r resure , ree mining

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3.

CO, Pb, Ni, As, CoHe, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5μm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	34.2	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	42.2	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.15	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 6182 (Part - 6): 2006	µg/m³	13.77	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	10.20	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV6/SOP/01/10 (Indophenol Method) Issue No. 04, Issue Date: 10.01.2018	µg/m³	15.05	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red. (NDIR) spectroscopy	mg/m³	0.620	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.080	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/D1/15 (AAS Method) Issue No. 04. Issue Date: 10:01-2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RVB/SOP(01/16 (AAS Method) issue No. 04. Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m ³	<0.5	1.0

Minimum detection Limit: Nickel 5 ng/m³, Arsenic: 0.25 ng/m³, Benzona: 1 ug/m³ & Benzo(a)Pyrene: 0.5 ng/m³ Report Verified by Reviewe

Reviewed & Authorised by

Quality Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-26/0452 Issue Date: September 25, 2025 : M/S. PARADEEP PHOSPHATE LTD. Issued to

Address : Paradeep, Odisha

5500007609, dtd. 16.08.2024 Your Ref. No.

Sample Description Ambient Air Sample ID No. AP-AAQ/25-26/0452

Name of Industry / Site M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha

: Near AAQMS # 02 Sampling Location

Date & Time of sampling. : 18.09.2025 (10:40 A.M.) - 19.09.2025 (10:40 A.M.)

Duration of Sampling Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr.S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 22.09.2025 Analysis Completed on : 25.09.2025 Equipment used:

TC-12347

Page 1 of 1

Ambient Fine Dust Sampler ID No.: RVB/AFDS/PM2.5/20, Cal. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 32°C & Min: 26.5°C Barometric Presure: 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni, As. CeHe, BaP

TEST FINDINGS:-

Report Verified by

SI. No.	10000000000000000000000000000000000000	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L.	µg/m³	32.1	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10μm)	IS 5182 (Part - 23): 2006	µg/m³	40.5	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	6.63	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	12.54	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	10.41	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV8/SOP/01/10 (Indephend Method) Issue No. 94, Issue Date: 10.01.2018	µg/m³	12.89	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NOIR) spectroscopy	mg/m ³	0.650	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.075	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP(01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SCP No.: RVB/SCP/01/16 (AAS Method) Issue No. 04, itsue Date: 10.01.2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	<1.0	5.0
12,	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit. Nickel: 5 ng/m³. Arsenic: 0.25 ng/m³. Benzene: 1 µg/m³. Benze(e) Pyrene: 0.5 ng/m³.

Reviewed & Authorised by

MUKHERJEE) Quality Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-26/0453 Issue Date : September 25, 2025

: M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air Sample ID No. : AP-AAQ/25-26/0453

Name of Industry / Site : M/S. PARADEEP PHOSPHATE LTD.

Paradeep, Odisha

Sampling Location : Near AAQMS # 03

Date & Time of sampling : 16.09.2025 (10:00 A.M.)-17.09.2025 (10:00 A.M.)

Duration of Sampling 24Hrs.
Sampling Plan RVB/FM/45

Sampling Carried out by : Mr. S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 22.09.2025 Analysis Completed on : 25.09.2025

erified by

Equipment used:

TC-12347

Page 1 of 1

Ambient Fine Dust Sampler

ID No.: RVB/AFDS/PM2.5/20, Cat. Valid upto: 20.01.26

Resperible Dust Sampler

ID No.: RVB/RDS/APM460/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 28°C

Barometric Presure: 755 mmHg

Parameters Tested: PM2.5, PM10, SO2, NO2, O3, NH3,

CO. Pb. Ni. As, CeHe. BaP

	merch t	44.7		
TEST	CIN	D)	MCC.	
1531	CHA	L)	NGS:	۰

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November, 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a;40 CFR Part 50, Appendix L.	µg/m³	35.8	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	44.0	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	5.18	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13.03	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9): 1974	µg/m³	12.81	180 (1 Hourly.)
6.	Ammonia as NH ₃	SOP No.: RV8/SOP/01/10 (indepheno/ Method) issue No. 04, Issue Date: 10:01:2018	µg/m³	11.12	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5182 (Part - 10), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.770	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.520	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No. RVB/SOP(01/15 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<5.0	20
10	Arsenic as As	SOP No.: RV9/SOP/01/16 (AAS Method) Issue No. 04, Issue Date: 10.01.2018	ng/m³	<0.25	6.0
11	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006,	µg/m³	1.20	5.0
12	Benzo (a) Pyrene	IS 5182 (Part - 12): 2004.	ng/m³	<0.5	1.0

Minimum detection Limit. Nickel. 5 ng/m³, Arsenic: 0.25 ng/m³, Benzene: 1 µg/m³ & Benzo(a)Pyrene: 0.5 ng/m³

Reviewed & Authorised by

J. MUKHERJEE)

For R.V. BRIGGS & CO. (P) LTD.

Quality Manager Authorised Signatory

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Results relate only to the parameters of the item tested.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-AAQ/25-25/0454 Issue Date : September 25, 2025 Page 1 of 1

issued to : M/S. PARADEEP PHOSPHATE LTD.

Address : Paradeep, Odisha

Your Ref. No. : 5500007609, dtd. 16.08.2024

Sample Description : Ambient Air

Sample ID No. : AP-AAQ/25-25/04554

Name of Industry / Site M/S. PARADEEP PHOSPHATE LTD. Paradeep, Odisha

Sampling Location : Near AAQMS # 04

Date & Time of sampling : 17.09.2025 (10:20 A.M.)-18.09.2025 (10:20 A.M.)

Duration of Sampling : 24Hrs.

Sampling Plan : : RVB/FM/45 Sampling Carried out by : Mr.S. Roy

Method of Sampling : As per CPCB guidelines (Volume-I)

Analysis Started on : 22.09.2025

Analysis Completed on : 25.09.2025

Equipment used:

TC-12347

Ambient Fine Dust Sampler
ID No. RVB/AFDS/PM2:5/20, Cal. Valid upto: 20.01.26

Respenble Dust Sampler

D No.: RVB/RDS/APM450/NL/05, Cal. Valid upto: 26.06.26

Environmental conditions

Weather Condition: Clear

Temperature: Max: 34.0°C & Min: 27.5°C

Barometric Presure: 755 mmHg

Parameters Tested: PM25, PM10, SO2, NO2, O3, NH3,

CO, Pb, Ni, As, C₆H₆, BaP

TEST FINDINGS:-

SI. No.	Parameters	Test Method	Unit	Results (Time Weighted Avg.)	Norms as per MOE & F Notification New Delhi, 16th November 2009
1.	PM _{2.5} (Size ≤ 2.5µm)	USEPA 1997a,40 CFR Part 50, Appendix L	µg/m³	31.3	60 (24 Hourly.)
2.	PM ₁₀ (Size ≤ 10µm)	IS 5182 (Part - 23): 2006	µg/m³	41.7	100 (24 Hourly.)
3.	Sulphur Dioxide as SO ₂	IS 5182 (Part - 2): 2001	µg/m³	7.32	80 (24 Hourly.)
4.	Nitrogen Dioxide as NO ₂	IS 5182 (Part - 6): 2006	µg/m³	13.52	80 (24 Hourly.)
5.	Ozone as O ₃	IS 5182 (Part - 9) : 1974	µg/m³	11.21	180 (1 Hourly.)
6.	Ammonia as NH ₃	SCP No. RVB/SCP/01/10 (Indephend Method) issue No. 04, issue Date: 10.01.2018	µg/m³	10.54	400 (24 Hourly.)
7.	Carbon Monoxide as CO	IS: 5162 (Part - 12), 1999 Non Dispersive Infra-Red (NDIR) spectroscopy	mg/m ³	0.790	04 (1 Hourly.)
8.	Lead as Pb	IS 5182 (Part - 22): 2004	µg/m³	0.620	1.0 (24 Hourly.)
9.	Nickel as Ni	SOP No.: RVB/SOP/01/15 (AAS Method) issue No. D4, issue Date; 10.01.2018	ng/m³	<5.0	20
10.	Arsenic as As	SOP No.: RVB/SOP/01/16 (AAS Method) Issue No. 04, lasee Date: 10,01 2018	ng/m³	<0.25	6.0
11.	Benzene as C ₆ H ₆	IS 5182 (Part - 11): 2006;	µg/m³	<1.0	5.0
12.	Berizo (a) Pyrene	IS 5182 (Part - 12): 2004,	ng/m³	<0.5	1.0

Minimum detection Limit: Nickel: 5 ng/m3, Arsenic: 0.25 ng/m3, Benzene: 1 µg/m3 & Benzo(a)Pyrene: 0.5 ng/m3

Reviewed & Authorised by

Quality Manager Authorised Signatory

J. MUKHERJEE)

For R.V. BRIGGS & CO. (P) LTD.

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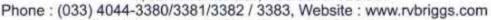
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TC-12347

Page 1 of 1



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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/087A-090A Issue Date: April 30, 2025 Issued to : M/S. PARADEEP PHOSPHATES LIMITED Address : Paradeep. Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Description of Sample : Sound Level Monitoring Equipment used: : AP-SL/25-26/087A-090A Sound Level Meter Sample ID No. Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/07 (Cal. Validity: 07.05.2025) : Paradeep, Odisha. Parameters Tested : Latin Latin & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. Souvik Banerjee Test Method: IS 4758: 1968 Date of Monitoring : 22.04.2025 to 25.04.2025 A. SOUND LEVEL MONITORING # Day Time (06.00 A.M to 10.00 P.M) Date of Locations Night Time (10.00 P.M to 06.00 A.M) Monitoring Norms as per No Sound Level in dB(A) Norms as per Sound Level in dB(A) Environmental Environmental Littin LMax LMin LMax Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1) and 4 (1) for and 4 (1) for Industrial area Industrial area Near AAQMS -24.04.2025 60.8 65.1 63.3 54.2 48.3 51.8 Near AAQMS -2 22.04.2025 58.1 65.4 62.4 75 dB(A) 50.4 53.1 51.9 70 dB(A) 3 Near AAQMS 23.04.2025 53.9 57.9 55.7 45.1 50.2 48.0 B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA Date of Locations Day Time (06.00 A.M to 10.00 P.M) Night Time (10.00 P.M to 06.00 A.M) No Monitoring Norms as per Norms as per Sound Level in dB(A) Sound Level in dB(A) Environmental Environmental L_{Min} LMax LMax L-Min Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1) and 4 (1) for and 4 (1) for Residential Residential area area

Note: - L = - Equivalent sound energy.

Near AAQMS -

Report Verified by

25.04.2025

Reviewed & Authorised by

44.8

43.1

45 dB(A)

41.9

(Dr. R. KARIM) Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

<! END OF TEST REPORT :-

52.9

56.8

54.1

55 dB(A)



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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/091-093 Issue Date: April 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring Equipment used:

Sample ID No. : AP-SL/25-26/091-093 Sound Level Meter

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/07

Paradeep, Odisha. (Cal. Validity: 07.05.2025)

Sampling Plan : : RVB/FM/45 Parameters Tested : L_{Min}, L_{Max} & L_{eq}

Sampling Carried out by : Mr. Souvik Baneriee Test Method : IS 4758 : 1968

Sampling Carried out by : Mr. Souvik Banerjee

Date of Monitoring : 22.04.2025 to 25.04.2025

SOUND LEVEL MONITORING:

SI.	Locations	TIME	Noise	ioise Level in dB(A) Permissible No Exposure for Indu			
No.			L _{Min}	L _{Max}	L_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000	
1.	Bagging Section	02:00 P.M 02:05 P.M.	67.2	72.1	71.0		
2.	SAP Plant	02:15 P.M 02:20 P.M.	56.2	59.2	58.0	90 dB(A)	
3.	Off Side	11:00 A.M 11:05 A.M.	53.2	56.0	55.0		

Note: - L ... - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



Certificate No. AP-SL/25-26/0232A-0235A

R. V. BRIGGS & CO. PRIVATE LTD.

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Issue Date : May 28, 2025

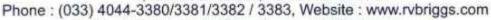
TC-12347

Page 1 of 1

and 4 (1) for

Residential area

45 dB(A)



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

: M/S, PARADEEP PHOSPHATES LIMITED Issued to Address : Paradeep, Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Description of Sample : Sound Level Monitoring Equipment used: Sound Level Meter Sample ID No. : AP-SL/25-26/0232A-0235A ID No.: RVB/SLM/09 : M/S. PARADEEP PHOSPHATES LIMITED Name of Industry / Site (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : LMin. LMin. & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. Partha Pratim Mandal Test Method: IS 4758: 1968 Date of Monitoring : 20.05.2025 to 23.05.2025 A. SOUND LEVEL MONITORING A SI. Date of Locations Day Time (06.00 A.M to 10.00 P.M) Night Time (10.00 P.M to 06.00 A.M) No Monitoring Sound Level in dB(A) Norms as per Sound Level in dB(A) Norms as per Environmental **Environmental** Littin LMax Latin LMax Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1) and 4 (1) for and 4 (1) for Industrial area Industrial area Near AAQMS -23.05.2025 56.2 58.4 57.5 45.8 49.1 47.6 1 Near AAQMS -20.05.2025 55.4 59.1 57.5 75 dB(A) 48.6 51.3 50.0 70 dB(A) 2 Near AAQMS -21.05.2025 56.1 59.2 47.7 58.2 51.5 50.1 3 B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA Day Time (06.00 A.M to 10.00 P.M) Night Time (10.00 P.M to 06.00 A.M) Date of Locations Norms as per Monitoring Sound Level in dB(A) Norms as per No Sound Level in dB(A) Environmental Environmental LMin Litter LMID Later Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1)

Note: - L_{sq} - Equivalent sound energy.

Near AAQMS -

Report Verified by

22.05.2025

1.

Reviewed & Authorised by

44.5

44 4

42.5

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

54.8

53.5

SATES OF THE SERVICE OF THE SERVICE

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and 4 (1) for Residential

proa

55 dB(A)

Results relate only to the parameters of the item tested.

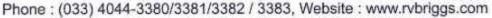
51.5



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CIN: U51109WB1931PTC007007

TEST REPORT

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring Equipment used:

Sample ID No. : AP-SL/25-26/0236-0242 Sound Level Meter

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/09

Paradeep, Odisha.

Sampling Plan: : RVB/FM/45

Sampling Carried out by : Mr. Partha Pratim Mandal Date of Monitoring : 20.05.2025 to 23.05.2025 Parameters Tested : L_{Min}, L_{Max} & L_{eq}

TC-12347

Test Method: 1S 4758: 1968

(Cal. Validity: 07.05.2026)

SOUND LEVEL MONITORING:

SI.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial			
No.			$\mathbf{L}_{\mathbf{Min}}$	L _{Max}	L_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000			
1,	PAP Plant	10:10 A.M 10:15 A.M.	79.9	84.1	82.4				
2.	Bagging Section	10:20 A.M 10:25 A.M.	72.5	77.7	75.5				
3.	SAP Plant	10:40 A.M 10:45 A.M.	72.8	76.2	74.8				
4.	DAP- AB Side	11:00 A.M 11:05 A.M.	86.4	89.1	87.9	90 dB(A)			
5.	DAP - CD Side	11:10 A.M 11:15 A.M.	87.5	89.6	88.7				
6.	Zypmite Plant	10:00 A.M 10:05 A.M.	78.6	87.9	84.2				
7.	Off Side	10:30 A.M 10:35 A.M.	72.8	76.1	74.9				

Note: - L = - Equivalent sound energy.

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Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/0481-0486 Issue Date :June 30, 2025 Page 1 of 1

Issued to : M/S. PARADEEP PHOSPHATES LIMITED

Address : Paradeep, Odisha.

Your W.O. Ref. no. 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring

Sample ID No. : AP-SL/25-26/0481-0486

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan : : RVB/FM/45

Sampling Carried out by : Mr. S Sen

Date of Monitoring : 20.06.2025 to 23.06.2025

Equipment used:

TC-12347

Sound Level Meter

ID No.: RVB/SLM/06

(Cal. Validity: 02.05.2026)

Parameters Tested : L_{Min}, L_{Max} & L_{eq}

Test Method : IS 4758 : 1968

SOUND LEVEL MONITORING:

SI.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
No.	-		\mathbf{L}_{Min}	L _{Max}	\mathbf{L}_{eq}	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	PAP Plant	11:00 A.M 11:05 A.M.	79.8	84.6	82.4	
2.	Bagging Section	10:10 A.M 10:15 A.M.	70.4	73.4	71.9	
3.	SAP Plant	02:30 P.M 02:35 P.M.	68.2	73.6	71.1	
4.	DAP- AB Side	10:30 A.M 10:35 A.M.	85.4	88.8	87.4	90 dB(A)
5.	DAP - CD Side	10:50 A.M 10:55 A.M.	86.8	89.2	88.2	
6.	Zypmite Plant	03:00 P.M 03:05 P.M.	79.9	83.1	81.7	
7.	Off Side	11:00 A.M 11:05 A.M.	70.8	74.4	72.6	

Note: - L eq - Equivalent sound energy.

Report Kerified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

AN

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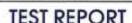
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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/0487A-0490A Issue Date: JUNE 30, 2025 Page 1 of 1 Issued to : M/S. PARADEEP PHOSPHATES LIMITED Address : Paradeep, Odisha. Your P.O. Ref. no. : 5500007609, dtd. 16.08.2024 Description of Sample : Sound Level Monitoring Equipment used: Sample ID No. : AP-SL/25-26/0487A-0490A Sound Level Meter Name of Industry / Site : M/S, PARADEEP PHOSPHATES LIMITED ID No.: RVB/SLM/06 : Paradeep, Odisha. (Cal. Validity: 02.05.2026) Sampling Plan: : RVB/FM/45 Parameters Tested : L_{Mov} L_{Max} & Sampling Carried out by : Mr. Partha Pratim Mandal Test Method: 1S 4758: 1968 Date of Monitoring : 20.06.2025 to 23.06.2025

SI.	Date of	Locations	Day Ti	me (06.0	0 A.M to	10.00 P.M)	Night T	o 06.00 A.M)		
No	Monitoring		Sound	Level i	n dB(A)	Norms as per				
			L _{Min}	L _{Max}	Leq	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	Loq	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area
1.	23.06.2025	Near AAQMS -	52.8	55.9	54.6		48.6	51.1	50.1	
2	20.06.2025	Near AAQMS -	51.9	56.2	54.1	75 dB(A)	46.8	50.2	48.7	70 dB(A)
3	21.06.2025	Near AAQMS -	54.3	57.1	55.9		49.8	53.7	51.8	

SI.	Date of	Locations	Day Ti	me (06.0	00 A.M to	10.00 P.M)	Night Time (10.00 P.M to 06.00 A.M			o 06.00 A.M)
No	Sound Level III (B) Invironmental		Sound	Norms as per						
			L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	Leg	Environmental Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	22.06.2025	Near AAQMS - 2	50.8	54.1	52.7	55 dB(A)	41.7	44.2	44.5	45 dB(A)

Note: - Las - Equivalent sound energy.

Report Nerified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No. AP-SL/25-26/PPL/01/07/01 Page 1 of 1 Issue Date: July 22, 2025

Issued to : M/S. PARADEEP PHOSPHATES LIMITED : Paradeep, Odisha.

Address

: 5500007609, dtd. 16.08.2024 Your W.O. Ref. no.

Description of Sample : Sound Level Monitoring : AP-SL/25-26/PPL-01-07

Sample ID No. Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha. : RVB/FM/45

Sampling Plan: Sampling Carried out by : Mr. S. Roy

Date of Monitoring : 19.07.2025 to 22.07.2025 Equipment used:

TC-12347

Sound Level Meter ID No.: RVB/SLM/07

(Cal. Validity: 02.05.2026) Parameters Tested : LMan LMan & Lac

Test Method: IS 4758: 1968

SOUND LEVEL MONITORING :

SI.	Sample ID No.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
No.				$\mathbf{L}_{\mathrm{Min}}$	L _{Max}	Leq	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	AP-SL/25-26/PPL- 01	SAP Plant	11:00 A.M 11:05 A.M.	53.9	57.8	56.0	
2.	AP-SL/25-26/PPL- 02	PAP Plant	11:20 A.M 11:25 A.M.	60.1	63.5	62.0	
3.	AP-SL/25-26/PPL- 03	DAP- AB Side	10:30 A.M 10:35 A.M.	53.6	56.6	55.0	
4,	AP-SL/25-26/PPL- 04	DAP - CD Side	02:20 P.M 02:25 P.M.	55.8	57.9	57.0	90 dB(A)
5.	AP-SL/25-26/PPL- 05	Zypmite Plant	02:00 P.M 02:05 P.M.	57.8	59.8	59.0]
6.	AP-SL/25-26/PPL- 06	Bagging Section	11:30 A.M 11:35 A.M.	74.2	75.8	75.0	
7.	AP-SL/25-26/PPL- 07	Off Side	11:10 A.M 11:15 A.M.	51.0	52.8	52.0	1

Note: - L eq - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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TC-12347

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CIN: U51109WB1931PTC007007

TEST REPORT

Page 1 of 1 Certificate No. AP-SL/25-26/PPL/08A/11A/01 Issue Date: July 22, 2025 : M/S. PARADEEP PHOSPHATES LIMITED issued to Address : Paradeep, Odisha. : 5500007609, dtd. 16.08.2024 Your P.O. Ref. no. Equipment used: Description of Sample : Sound Level Monitoring : AP-SL/25-26/PPL/08/11 Sound Level Meter Sample ID No. ID No.: RVB/SLM/07 Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : LMine LMes & Sampling Plan: : RVB/FM/45 Sampling Carried out by : Mr. S. Banerjee Test Method: 1S 4758: 1968 : 19.07.2025 to 22.07.2025 Date of Monitoring A. SOUND LEVEL MONITORING A Sample ID Night Time (10.00 P.M to 06.00 A.M) Locations Day Time (06.00 A.M to 10.00 P.M) Norms as per Norms as per No No. Sound Level in dB(A) Sound Level in dB(A) Environmental Environmental LMin LMax LMin Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1) and 4 (1) for and 4 (1) for Industrial area Industrial area AP-SL/25-Near AAQMS -1. 53.4 56.4 55.0 47.5 50.1 49.0 26/PPL/08 AP-SL/25-Near AAQMS -54.2 75 dB(A) 48.6 70 dB(A) 2 58.2 56.7 46.2 50.3 26/PPL/09 AP-SL/25-Near AAQMS -57.2 54.8 56.1 50.2 48.4 3 46.4 26/PPL/10 B. SOUND LEVEL MONITORING AT AMBIENT LOCATION: RESIDENTIAL AREA Day Time (06.00 A.M to 10.00 P.M) Night Time (10.00 P.M to 06.00 A.M) SI. Date of Locations Norms as per Sound Level in dB(A) Norms as per No Monitoring Sound Level in dB(A) Environmental Environmental LMin LMax LMin LMax Protection Act Protection Act 1986, rule 3(1) 1986, rule 3(1) and 4 (1) for and 4 (1) for Residential Residential area aroa AP-SL/25-Near AAQMS -43.7 51.4 54.7 54.1 40.8 43.9 45 dB(A) 55 dB(A) 26/PPL/11

Note: - L ec - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Page 1 of 1 Issue Date: August 22, 2025 Certificate No. AP-SL/25-26/0760A/0763A/01 : M/S. PARADEEP PHOSPHATES LIMITED Issued to : Paradeep, Odisha. Address : 5500007609, dtd. 16.08.2024 Your P.O. Ref. no. Equipment used: : Sound Level Monitoring Description of Sample Sound Level Meter : AP-SL/25-26/0760A-0763A Sample ID No. ID No.: RVB/SLM/07 : M/S. PARADEEP PHOSPHATES LIMITED Name of Industry / Site (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : L. L. L. L. & Sampling Plan: : RVB/FM/45 : Mr. P.P. Monal Sampling Carried out by Test Method: 1S 4758: 1968

: 19.08.2025 to 22.08.2025

A SOUND LEVEL MONITORING A

Date of Monitoring

SI.	Sample ID	Locations	Day Tir	ne (06.0	O A.M to	10.00 P.M)				o 06.00 A.M)
No	No.		Sound Level in dB(A)		Norms as per	Sound Level in dB(A)			Norms as per Environmental	
	V-227)		L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area
1.	AP-SL/25- 26/0760	Near AAQMS -	53.9	57.4	55.7		49.6	53.3	51.7	
2	AP-SL/25- 26/0761	Near AAQMS -	56.9	61.1	59.4	75 dB(A)	50.9	54.1	52.8	70 dB(A)
3	AP-SL/25- 26/0762	Near AAQMS -	51.2	54.1	53.2		42.7	46.4	45.1	

B. SOUND LEVEL MONITORING AT AMBIENT LOCATION : RESIDENTIAL AREA

SI.	Date of	Locations	Day Tir	me (06.0	0 A.M to	10.00 P.M)				o 06.00 A.M)
No	Monitoring	American Interpretation	Sound Level in dB(A)		Norms as per	Sound Level in dB(A)			Norms as per Environmental	
			L _{Min}	L _{Mex}	L _{eq}	Protection Act 1985, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Residential area
1.	AP-SL/25- 26/0763	Near AAQMS -	49.8	54.6	53.7	55 dB(A)	40.0	44.4	44.1	45 dB(A)

Note: - L ac - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

TC-12347

(Dr. R. KARIM

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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Page 1 of 1

TEST REPORT

Certificate No. AP-SL/25-26/0764/0770/01 A

: M/S. PARADEEP PHOSPHATES LIMITED

Issued to : M/S. PARADEEP I Address : Paradeep, Odisha.

Your W.O. Ref. no. : 5500007609, dtd. 16.08.2024

Description of Sample : Sound Level Monitoring

Sample ID No. : AP-SL/25-26/0764-0770 A

Name of Industry / Site : M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan : : RVB/FM/45 Sampling Carried out by : Mr.P.P. Mondal

Date of Monitoring : 19.08.2025 to 22.08.2025

Equipment used:

Sound Level Meter ID No.: RVB/SLM/07

ID No.: RVB/SLM/07 (Cal, Validity: 02.05.2026)

Parameters Tested: L_{Min}, L_{Max} & L_{eq}

Test Method : IS 4758 : 1968

Issue Date: August 22, 2025

SI.	ND LEVEL MONITO Sample ID No.	Locations	TIME	Noise	Level in	iB(A)	Permissible Noise Exposure for Industrial
No.				L _{Min}	L _{Max}	Leq	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	AP-SL/25-26/0764 A	Bagging Section	11:00 A.M 11:05 A.M.	80.2	81.9	81.0	
2.	AP-SL/25-26/0765 A	SAP Plant	12:10 P.M 12:15 P.M.	57.4	58.5	58.0	
3.	AP-SL/25-26/0766 A	Off Side	10:40 A.M 10:45 A.M.	60.9	62.9	62.0	
4.	AP-SL/25-26/0767 A	DAP- AB Side	11:10 A.M 11:15 A.M.	57.5	58.7	58.0	90 dB(A)
5.	AP-SL/25-26/0768 A	DAP - CD Side	11:20 A.M 11:25 A.M.	53.0	54.7	54.0	
6.	AP-SL/25-26/0769 A	PAP Plant	12:00 P.M 12:05 P.M.	62.5	63.5	63.0	
7.	AP-SL/25-26/0770 A	Zypmite Plant	12:30 P.M 12:35 P.M.	63.0	64.8	64.0	

Note: - L = Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM) Technical Manager

Authorised Signatory
For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT :-

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CIN: U51109WB1931PTC007007

TEST REPORT

Page 1 of 1 Certificate No. AP-SL/25-26/0952A/0955A/01 Issue Date: September 24, 2025 : M/S. PARADEEP PHOSPHATES LIMITED Issued to Address : Paradeep, Odisha, : 5500008829, dtd. 29.07.2025 Your P.O. Ref. no. Equipment used: : Sound Level Monitoring Description of Sample Sound Level Meter : AP-SL/25-26/0952A-0955A Sample ID No. ID No.: RVB/SLM/07 : M/S. PARADEEP PHOSPHATES LIMITED Name of Industry / Site (Cal. Validity: 07.05.2026) : Paradeep, Odisha. Parameters Tested : LMer LMex & : RVB/FM/45 Sampling Plan: : Mr. P.P. Monal Sampling Carried out by Test Method: 1S 4758: 1968 : 16.09.2025 - 19.09.2025 Date of Monitoring

A. SOUND LEVEL MONITORING /

SI.	Sample ID	Locations	Day Ti	me (06.0	O A.M to	10.00 P.M)	Night T	ime (10.	00 P.M t	o 06.00 A.M)
No	No.		Sound	Level in	dB(A)	Norms as per	Sound	Level in	dB(A)	Norms as per Environmental
			L _{Min}	L _{Max}	L _{eq}	Protection Act 1986, rule 3(1) and 4 (1) for Industrial area	L _{Min}	L _{Max}	Leq	Protection Act 1985, rule 3(1) and 4 (1) for Industrial area
1.	AP-SL/25- 26/0952	Near AAQMS -	54.9	58.2	56.3		45.9	49.3	47.7	
2	AP-SL/25- 26/0953	Near AAQMS -	54.8	59.8	57.4	75 dB(A)	46.5	52.3	50.2	70 dB(A)
3	AP-SL/25- 26/0954	Near AAQMS - 2	50.8	53.6	52.2		43.9	47.3	45.6	

B SOUND LEVEL MONITORING AT AMBIENT LOCATION : RESIDENTIAL AREA

SI.	Date of	Locations	Day Time (06.00 A.M to 10.00 P.M)				Night Time (10.00 P.M to 06.00 A.M)				
No	Monitoring		Sound	Level in	n dB(A)		Sound	Level i	n dB(A)	Norms as per	
			L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	L _{Min}	L _{Max}	Leq	Protection Act 1986, rule 3(1) and 4 (1) for Residential area	
1.	AP-SL/25- 26/0955	Near AAQMS -	47.4	53.8	54.2	55 dB(A)	40.7	44.8	43.1	45 dB(A)	

Note: - L ... - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

蚺



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CIN: U51109WB1931PTC007007



Certificate No. AP-SL/25-26/0956/0962/01 A Issue Date: September 24, 2025 : M/S. PARADEEP PHOSPHATES LIMITED

Page 1 of 1

Issued to

: Paradeep, Odisha.

Address Your W.O. Ref. no.

: 5500008829, dtd. 29.07.2025

Description of Sample

: Sound Level Monitoring

Sample ID No.

: AP-SL/25-26/00956-0962 A

Name of Industry / Site

: M/S. PARADEEP PHOSPHATES LIMITED

Paradeep, Odisha.

Sampling Plan: Sampling Carried out by

Date of Monitoring

: RVB/FM/45 : Mr.P.P. Mondal : 16.09.2025-19.09.2025

Sound Level Meter

ID No.: RVB/SLM/07

(Cal. Validity: 07.05.2026)

Parameters Tested : Little Little & Lin Test Method: 1S 4758: 1968

Equipment used:

COUND LEVEL MONITORING .

SI.	Sample ID No.	Locations	TIME	Noise	Level in	dB(A)	Permissible Noise Exposure for Industrial
No.				L _{Min}	L _{Max}	Leq	Workers as per The Noise Pollution (Regulation And Control) Rules, 2000
1.	AP-SL/25-26/0956 A	Bagging Section	11:00 A.M 11:05 A.M.	65.4	66.7	66.0	
2.	AP-SL/25-26/0957 A	SAP Plant	10:20 A.M 10:25 A.M.	53.9	56.0	55.0	
3.	AP-SL/25-26/0958 A	PAP Plant	10:40 A.M 10:45 A.M.	58.2	59.9	59.0	
4,	AP-SL/25-26/0959 A	DAP- AB Side	11:00 A.M 11:05 A.M.	60.8	62.8	62.0	90 dB(A)
5,	AP-SL/25-26/0960 A	DAP - CD Side	11:10 A.M 11:15 A.M.	59.1	61.0	60.0	
6.	AP-SL/25-26/0961 A	Zypmite Plant	04:20 P.M 04:25 P.M.	67.4	68.7	68.0	
7.	AP-SL/25-26/0962 A	Off Side	10:30 A.M 10:35 A.M.	54.0	56.0	55.0	

Note: - L ... - Equivalent sound energy.

Report Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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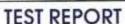
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CIN: U51109WB1931PTC007007



Page 1 of 1 Issue Date: 30 April 2025 Certificate No.E(D)/25-26/175 M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

E(D)/25-26/175 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

ETP Outlet Collection Source

25.04.2025 at 12:25 P.M. Sample Drawn by us on Mr. A.Manna

Sample Carried out by RVB/FM/45 Sampling Plan 25.04.2025 Analysis Started on 30.04.2025

Analysis completed on : APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
No.	0/27/27/			7.86	6.5 - 8.5
1	pH Value	APHA 24th edition-4500H+B	mo/l	10	100 (Max.)
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	< 2	10 (Max.)
_	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	0.70	10 (Max.)
3		APHA 24th edition 4500 F-C	mg/l	The Part of the Pa	50 (Max.)
4	Fluoride as F Ammoniacal Nitrogen as NH ₃ -N	APHA 24th edition 4500 NH3F	mg/l	0.15	
5	Ammoniacai Niirogen as (VI) as N	APHA 24th edition 4500-NorgA	mg/I	0.18	75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500 NH3F	mg/I	< 0.1	4 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500-PD	mg/l	0.18	5 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-N03D	mg/l	11.6	20 (Max.)
0	Nitrate Nitrogen as NO3-N	APPIA 24th Edition 1000 & Gre	ave 2	0 mg/L NH	3 ., 0.1mg/l.

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

Parameter Tested:

pH, TSS, O & G, F,

NH₂-N, TKN, NH₃, P, N

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

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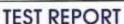
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CIN: U51109WB1931PTC007007



Page 1 of 2 Issue Date: 30 April 2025 Certificate No.E(D)/25-26/176

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/176 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

25.04.2025 at 5:20 P.M. Sample Drawn by us on

Mr. A.Manna Sample Carried out by RVB/FM/45 Sampling Plan 25.04.2025 Analysis Started on

30.04.2025 Analysis Completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling: Temperature: 28°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

TES	T FINDINGS:				
SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B		6.70	6.5 - 9.0
1	pH Value		ma/l	46	< 100
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	40	
3	Biochemical Oxygen Demand for 3 days/at 27°C (BOD)	1.S. 3025 (Part – 44) – 1993	mg/l	6.8	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO, (P) LTD.

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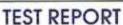
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CIN: U51109WB1931PTC007007



Page 2 of 2 Issue Date: 30 April 2025 Certificate No.E(D)/25-26/176

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep. Odisha

: Effluent Description of Sample

E(D)/25-26/176 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

25.04.2025 at 5:20 P.M. Sample Drawn by us on

Mr. A.Manna Sample Carried out by RVB/FM/45 Sampling Plan 25.04.2025 Analysis Started on

29.04.2025 Analysis completed on : APHA 24th Edition 1060

Sample collection Procedure Grab

Environmental condition during sampling : Temperature : 28°C, Transported in Ice box, Cold chain maintained

MICHOPHOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
*	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	63	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

(Pijush Kanti Dutta)

Parameter Tested:

Microbiological : Faccal Coliform

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Page 1 of 1 Issue Date: 30 May 2025 Certificate No.E(D)/25-26/331

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/331 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

: ETP Outlet Collection Source 24.05.2025 at 2:10 P.M.

Sample Drawn by us on Mr. S.Roy

Sample Carried out by RVB/FM/45 Sampling Plan 26.05.2025 Analysis Started on 30.05.2025

Analysis completed on : APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling : Temperature : 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

ES	T FINDINGS:				
SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B		8.20	6.5 - 8.5
1	pH Value	APHA 24th edition 2540D	mg/l	57	100 (Max.)
2	Total Suspended Solids (TSS)		mg/l	< 2	10 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	1.0	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	_	46.8	50 (Max.)
5	Ammoniacal Nitrogen as NH3-N	APHA 24th edition 4500 NH3F	mg/l		75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	47.2	4 (Max.)
0	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	2.1	The second secon
1		APHA 24th edition 4500-PD	mg/l	0.74	5 (Max.)
8	Dissolved Phosphates as P	APHA 24th edition 4500-N03D	mg/l	12	20 (Max.)
0	Nitrate Nitrogen as NO3-N	PAT THAT E THE CONTRACT	_	A 3 11 11	2 0 1mg/l

Note: BDL: Below Detection Limit, Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

Parameter Tested:

pH, TSS, O & G, F.

NH₃-N, TKN, NH₃, P, N

(Dr. R. KARIM)

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Page 1 of 2 Issue Date: 30 May 2025 Certificate No.E(D)/25-26/332 M/s. PARADEEP PHOSPHATE LIMITED

Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/332 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

24.05.2025 at 2:40 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 26.05.2025 Analysis Started on

30.05.2025 Analysis Completed on : APHA 24th Edition 1060

Sample collection Procedure Grab

Environmental condition during sampling: Temperature: 29.5°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
No.	Text Farances			7.36	6.5 - 9.0
1	pH Value	APHA 24th edition-4500H+B	394	7.50	
946	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	12	< 100
	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	LS. 3025 (Part – 44) – 1993	mg/l	10	< 30

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

oH, TSS, BOD

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

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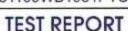
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Page 2 of 2 Issue Date: 30 May 2025

Certificate No.E(D)/25-26/332 M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

E(D)/25-26/332 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

24.05.2025 at 2:40 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 26.05.2025 Analysis Started on 28.05.2025 Analysis completed on

APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling: Temperature: 29.5°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	<2	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report

Reviewed & Authorised by

Parameter Tested:

Microbiological : Faccal Coliform

40 B (Pijush Kanti Dutta)

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007

TEST REPORT

Page 1 of 1 Issue Date: 30 June 2025 Certificate No.E(D)/25-26/534

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/534 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

ETP Outlet Collection Source

23.06.2025 at 2:10 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 24.06.2025 Analysis Started on 30.06.2025 Analysis completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling : Temperature : 30°C, Transported in Ice box, Cold chain maintained

ES	r FINDINGS:			of Marie Contaction of	
SI. No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
3177		APHA 24th edition-4500H+B	444	8.44	
1	pH Value	APHA 24th edition 2540D	mg/l	20	100 (Max.)
2	Total Suspended Solids (TSS)		mg/l	<2	10 (Max.)
3	Oil & Grease (O & G)	APHA 24th edition 5520B	mg/l	1.0	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	33.7	50 (Max.)
5	Ammoniacal Nitrogen as NH3-N	APHA 24th edition 4500 NH3F	_	34.2	75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	2.5	4 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	-	5 (Max.)
	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	3.14	
8	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	8 0 // NILI	20 (Max.) 3 0.1mg/l.

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Repor

Reviewed & Authorised by

Parameter Tested:

pH, TSS, O & G, F,

NH2-N, TKN, NH2, P, N

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com CIN: U51109WB1931PTC007007



TEST REPORT

Page 1 of 2 Issue Date: 30 June 2025 Certificate No.E(D)/25-26/535 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha : Effluent Description of Sample : E(D)/25-26/535 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha STP Outlet Collection Source 23.06.2025 at 2:10 P.M. Sample Drawn by us on Parameter Tested: Mr. S.Roy Sample Carried out by pH, TSS, BOD RVB/FM/45 Sampling Plan

24.06.2025 Analysis Started on 30.06.2025 Analysis Completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Temperature: 29.5°C, Transported in Ice box, Cold chain maintained Environmental condition during sampling :

THET FINDINGS.

ES	Γ FINDINGS:	1			
SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B	***	7.54	6.5 - 9.0
1	pH Value	The control of the co		14	< 100
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	1.4	1,770
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	1.S. 3025 (Part – 44) – 1993	mg/l	8.5	< 30

Remarks: The sample of effluent complies with the above Specification.

Verified by

Reviewed & Authorised by

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



ANALYTICAL CONSULTING & TECHNICAL CHEMISTS

AN ISO 9001:2015 & ISO 45001: 2018 CERTIFIED COMPANY) TAHER MANSION, 1ST FLOOR

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E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com

CIN: U51109WB1931PTC007007

TEST REPORT

Page 2 of 2 Issue Date: 30 June 2025 Certificate No.E(D)/25-26/535 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha : Effluent Description of Sample : E(D)/25-26/535 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha STP Outlet Collection Source 23.06.2025 at 2:10 P.M. Sample Drawn by us on Parameter Tested: Mr. S.Roy Sample Carried out by Microbiological: Faecal Coliform RVB/FM/45 Sampling Plan 24.06.2025 Analysis Started on 26.06.2025 Analysis completed on : APHA 24th Edition 1060

Sample collection Procedure

: Grab

Environmental condition during sampling: Temperature: 29.5°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTC
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	< 2	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

dus.

Reviewed & Authorised by

1200 (Pijush Kanti Dutta)

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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Parameter Tested:

pH, TSS, O & G, F,

NH2-N, TKN, NH2, P, N

TEST REPORT

Page 1 of 1 Issue Date: 28 July 2025 Certificate No.E(D)/25-26/740 M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

E(D)/25-26/740 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

: ETP Outlet Collection Source

22.07.2025 at 11:40 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 22.07.2025 Analysis Started on 28.07.2025 Analysis completed on

APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B		8.20	6.5 - 8.5
1	pH Value	APHA 24th edition 2540D	mg/l	39	100 (Max.)
2	Total Suspended Solids (TSS)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
3	Oil & Grease (O & G)		mg/l	1.18	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	The second second	21	50 (Max.)
5	Ammoniacal Nitrogen as NH3-N	APHA 24th edition 4500 NH3F	mg/l		75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l	35.6	The second second second
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	1.8	4 (Max.)
1		APHA 24th edition 4500-PD	mg/l	3.0	5 (Max.)
8	Dissolved Phosphates as P Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	5.2 0 mg/L NH	20 (Max.)

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

erified by

Reviewed & Authorised by

(Dr. R. KARIM)

Technical Manager

Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007



Page 1 of 2 Issue Date: 28 July 2025 Certificate No.E(D)/25-26/741

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/741 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

22.07.2025 at 12:10 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 22.07.2025 Analysis Started on

28.07.2025 Analysis Completed on APHA 24th Edition 1060

Sample collection Procedure Grab

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B		7.25	6.5 - 9.0
	pH Value		mg/l	42	< 100
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/r	1.0	
	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	LS. 3025 (Part – 44) – 2023	mg/l	6.0	< 30

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

(Dr. R. KARIM)

Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

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CIN: U51109WB1931PTC007007

TEST REPORT

Certificate No.E(D)/25-26/741 Issue Date: 28 July 2025 Page 2 of 2
Issued to : M/s. PARADEEP PHOSPHATE LIMITED

Paradeep, Odisha

Description of Sample : Effluent

Sample ID No : E(D)/25-26/741

Name of Industries/Site : Paradeep Phosphate Limited

Paradeep, Odisha

Collection Source : STP Outlet

Sample Drawn by us on : 22.07.2025 at 12:10 P.M.

Sample Carried out by : Mr. S.Roy
Sampling Plan : RVB/FM/45
Analysis Started on : 22.07.2025
Analysis completed on : 24.07.2025

Sample collection Procedure : APHA 24th Edition 1060

Mode of Sampling : Grab

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	<2	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Dul.

Reviewed & Authorised by

Parameter Tested:

Microbiological: Faecal Coliform

(Pijush Kanti Dutta)

I vant -

Sr. Microbiologist

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

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CIN: U51109WB1931PTC007007



Page 1 of 1 Issue Date: 30 August 2025 Certificate No.E(D)/25-26/888 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha : Effluent Description of Sample E(D)/25-26/888 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha ETP Outlet Collection Source Parameter Tested: 22.08.2025 at 3:40 P.M. Sample Drawn by us on pH, TSS, O & G, F, Mr. S.Roy Sample Carried out by NH₃-N, TKN, NH₃, P, N RVB/FM/45 Sampling Plan 25.08.2025 Analysis Started on 30.08.2025 Analysis completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

ES	FINDINGS:				
SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
NO.		*** *** ******************************		7.70	6.5 - 8.5
1	pH Value	APHA 24th edition-4500H+B	ma/l	42	100 (Max.)
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/l	<2	10 (Max.)
2	Total Suspended Services	APHA 24th edition 5520B	mg/l		
3	Oil & Grease (O & G)	APHA 24th edition 4500 F-C	mg/l	1.05	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 NH3F	mg/l	26	50 (Max.)
5	Ammoniacal Nitrogen as NH3-N	APHA 24th edition 4500 NorgA	mg/l	44	75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	-	1.6	4 (Max.)
0	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	1000	5 (Max.)
7	Free Ammonia as 1113	APHA 24th edition 4500-PD	mg/l	1.8	
8	Dissolved Phosphates as P	APHA 24th edition 4500-N03D	mg/l	4.8	20 (Max.)
0	Nitrate Nitrogen as NO3-N	APRIA 24th Californ 15 Can	2	0 mg/l NH	3 0.1mg/l.

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

J.Das)

Dy.Technical Manager Authorised Signatory For R.V. BRIGGS & CO. (P) LTD.

-; END OF TEST REPORT:-

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CIN: U51109WB1931PTC007007



Page 1 of 2 Issue Date: 30 August 2025 Certificate No.E(D)/25-26/889

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/889 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

22.08.2025 at 3:10 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 25.08.2025

Analysis Started on 30.08.2025 Analysis Completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab

Environmental condition during sampling : Temperature : 29°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
200		APHA 24th edition-4500H+B	34004	6.80	6.5 - 9.0
1	pH Value	1 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	mg/l	39	< 100
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	ing/i	3,	
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	1.S. 3025 (Part – 44) – 2023	mg/l	6.7	< 30

Remarks: The sample of effluent complies with the above Specification.

Report/Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

Dy.Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

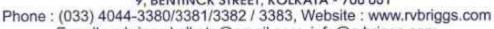
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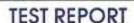
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9, BENTINCK STREET, KOLKATA - 700 001



E-mail: rvbriggs.kolkata@gmail.com, info@rvbriggs.com CIN: U51109WB1931PTC007007



Page 2 of 2 Issue Date: 30 August 2025 Certificate No.E(D)/25-26/889 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha : Effluent Description of Sample : E(D)/25-26/889 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha : STP Outlet Collection Source 22.08.2025 at 3:10 P.M. Sample Drawn by us on Parameter Tested: Mr. S.Roy Sample Carried out by Microbiological: Faecal Coliform RVB/FM/45 Sampling Plan 25.08.2025 Analysis Started on

29.08.2025 Analysis completed on APHA 24th Edition 1060

Sample collection Procedure : Grab

Environmental condition during sampling: Temperature: 29°C, Transported in Ice box, Cold chain maintained

MICRORIOLOGICAL TEST FINDINGS:

SI. No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	79	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

done.

Reviewed & Authorised by

- thanks (Pijush Kanti Dutta)

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

-: END OF TEST REPORT:-

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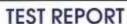
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CIN: U51109WB1931PTC007007



Page 1 of 1 Issue Date: 26 September 2025 Certificate No.E(D)/25-26/1115

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/1115 Sample ID No

: Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

ETP Outlet Collection Source

20.09.2025 at 3:50 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 22.09.2025 Analysis Started on 25.09.2025 Analysis completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling : Temperature : 31°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS:

ES	T FINDINGS:				
SI.		Test Method	Unit	Results	Norms as per CTO
		APHA 24th edition-4500H+B		7.3	6.5 - 8.5
1	pH Value	APHA 24th edition 2540D	mg/l	39	100 (Max.)
2	Total Suspended Solids (TSS)	APHA 24th edition 5520B	mg/l	< 2	10 (Max.)
3	Oil & Grease (O & G)		mg/l	1.15	10 (Max.)
4	Fluoride as F	APHA 24th edition 4500 F-C	mg/l	23	50 (Max.)
5	Ammoniacal Nitrogen as NH3-N	APHA 24th edition 4500 NH3F		45	75 (Max.)
6	Total Kjeldahl Nitrogen (TKN) as N	APHA 24th edition 4500-NorgA	mg/l		4 (Max.)
7	Free Ammonia as NH ₃	APHA 24th edition 4500 NH3F	mg/l	1.5	
8	Dissolved Phosphates as P	APHA 24th edition 4500-PD	mg/l	1.6	5 (Max.)
	Nitrate Nitrogen as NO ₃ -N	APHA 24th edition 4500-N03D	mg/l	4.9	20 (Max.)
9	Nitrate Nitrogen as North			A SHIP	2 () 1 mars/1

Note: BDL: Below Detection Limit. Minimum Detection Limit of Oil & Grease .. 2.0 mg/l, NH3 .. 0.1mg/l.

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

Reviewed & Authorised by

Parameter Tested:

pH, TSS, O & G, F,

NH₂-N, TKN, NH₃, P, N

(J.Das)

Dy.Technical Manager Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007



Page 1 of 2 Issue Date: 26 September 2025 Certificate No.E(D)/25-26/1116

M/s. PARADEEP PHOSPHATE LIMITED Issued to

Paradeep, Odisha

: Effluent Description of Sample

: E(D)/25-26/1116 Sample ID No

Paradeep Phosphate Limited Name of Industries/Site

Paradeep, Odisha

STP Outlet Collection Source

20.09.2025 at 3:25 P.M. Sample Drawn by us on

Mr. S.Roy Sample Carried out by RVB/FM/45 Sampling Plan 22.09.2025 Analysis Started on

25.09.2025 Analysis Completed on

: APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling : Temperature : 30°C, Transported in Ice box, Cold chain maintained

TEST FINDINGS.

TES	T FINDINGS:				
SI.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
	II Walne	APHA 24th edition-4500H+B	***	7.02	6.5 - 9.0
1	pH Value	A Control by Assembly Control	mg/I	41	< 100
2	Total Suspended Solids (TSS)	APHA 24th edition 2540D	mg/1	41	
3	Biochemical Oxygen Demand for 3 days at 27°C (BOD)	I.S. 3025 (Part - 44) - 2023	mg/I	6.6	< 30

Remarks: The sample of effluent complies with the above Specification.

Reviewed & Authorised by

Parameter Tested:

pH, TSS, BOD

Dy.Technical Manager

Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.



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CIN: U51109WB1931PTC007007

TEST REPORT

Page 2 of 2 Issue Date: 26 September 2025 Certificate No.E(D)/25-26/1116 M/s. PARADEEP PHOSPHATE LIMITED Issued to Paradeep, Odisha : Effluent Description of Sample : E(D)/25-26/1116 Sample ID No Paradeep Phosphate Limited Name of Industries/Site Paradeep, Odisha STP Outlet Collection Source

20.09.2025 at 3:25 P.M. Sample Drawn by us on Mr. S.Roy Sample Carried out by

RVB/FM/45 Sampling Plan 22.09.2025 Analysis Started on 26.09.2025 Analysis completed on

APHA 24th Edition 1060 Sample collection Procedure

Grab Mode of Sampling

Environmental condition during sampling: Temperature: 30°C, Transported in Ice box, Cold chain maintained

MICROBIOLOGICAL TEST FINDINGS:

SL No.	Test Parameters	Test Method	Unit	Results	Norms as per CTO
1	Faecal Coliform	APHA 24th edition 9221E	MPN/ 100 ml	63	< 1000

Remarks: The sample of effluent complies with the above Specification.

Report Verified by

alme.

Reviewed & Authorised by

Parameter Tested:

Microbiological : Faecal Coliform

CHELLA (Pijush Kanti Dutta)

Sr. Microbiologist Authorised Signatory

For R.V. BRIGGS & CO. (P) LTD.

Annexure-1

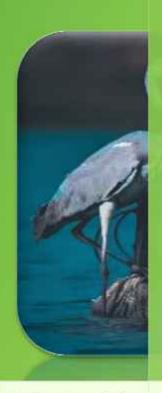
SULPHUR MUCK (April 25 - Sept 2025)		
MONTH	GENERATION (MT)	UTILISATION (MT)
April	159	159
May	120	120
June	187	187
July	185	185
August	105	105
Sepember	186	186

PARADEEP PHOSPHATES LTD.

BIOASSAY TOXICITY STUDIES (Treated Effluent Stream and Storm Water Drains)

2025







Submitted By: -SIMA LABS PVT.LTD.

A-3/7, Mayapuri Industrial Area, Phase-II, New Delhi-110064

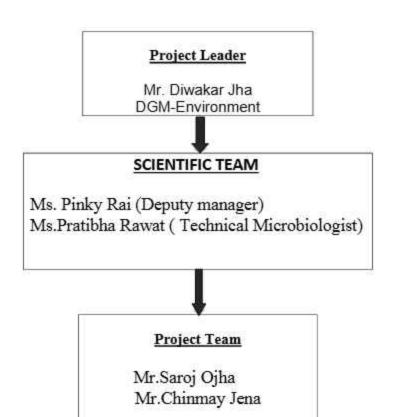
FOREWORD

In the present scenario, due to Industrialization & Urbanization have mainly contributed to the economic growth of the develop in ignitions like India to cater the needs of the population. Production and productivity has been given importance for economic growth of the nation which has exerted tremendous pressure on the environment, on all its wings-air, water, and land. But the pressure should not be so high that it will break the resilience capacity of the environment. Water environment is the most affected and exploited among all the environments. While granting environmental clearance keeping above reasons in mind & to regulate the load keep the resilience capacity under control Union Government has framed some environmental Acts & Rules Ministry of Environment & Forests lays down certain conditions for compliance at the time of grant in the environmental clearances for the projects Ministry of Environment & Forest vide their environmental clearance no11011/17/86-IA-IIdt. 23.7.1990 for Phase-II expansion has directed PPL to comply to 22no'sofspecific conditions incorporated in the environmental Clearance and out of 22 no's .of specific conditions "Routine toxic city bio-assay based on the effluent with fish and fish food organisms must be carried out at least once in a year".

As a renowned & responsible corporate house M/s PPL know how to execute their responsibility towards the society & environment. In order to fulfill the commitment towards the conservation of environment & aquatic resources, M/s PPL have decided to carry out the Bio-Assay Toxicity Study. Accordingly M/s PPL entrusted M/s SIMA LABS PVT.LTD.NEW DELHI A NABL accredited lab an empanelled from MOEF to carry out the test .M/s SIMA Labs Pvt. Ltd. has deputed their technical& scientific team for conducting the study from 06th August to 08th August 2025. The study was carried out as per standard methods and practices and wear sure, the findings of the study in corporate in this report will undoubtedly help PPL in augmenting their planning for treatment of effluent, its monitoring, disposal and its management.

DGM- Environment

PROJECT PERSONNEL



1. Introduction:

Phosphates Limited an OHSAS:18001, ISO Paradeep 14001:2004 and ISO 9001:2008 certified company, situated at Paradeep in Jagatsingpur District of Odisha and was established in1982 to manufacture 2400 TPDDi-ammonium Phosphate(DAP) consisting of four streams each of 600 TPD capacity under phase-I program me. The commercial production started in the year 1986. The fertilizer complex is using imported Sulphur and Rock phosphate to produce Phosphoric acid. The captive production of Phosphoric acid partly caters the requirement for production of DAP through 4 streams of DAP/NPK, Remaining requirement of Phosphoric acids met through imports. The requirement of Ammonia is through imports. Phase II plants comprising of a 750 TPD Phosphoric Acid Plant (PAP), 2x1000 MTPD Sulfuric Acid Plant (SAP) and a 2 x 16 MW Captive Power Plant (CPP) were commissioned in 1992. Subsequently in the year 2010 the capacity of DAP plant, SAP and PAP was enhanced to 5000TPD, 2400TPD and 1400TPD respectively after getting the environmental clearance from MoEF, New Delhi. In January, 2016 SAP-C stream of capacity 2000MTPD and byproduct power generation of 23 MW was commissioned. PAP-2 is commissioned in 23rd August, 2023. Besides, M/s PPL has developed a product Zypmite which is admixture of Phospho gypsum and basic slag by product of steel industry.

The project was setup during the year 2010 with a capacity of 240TPD and commissioned in the year 2012. The basic raw materials are Rock Phosphates, Sulphur and Ammonia are imported and Phosphoric acid & Sulphuric Acid are manufactured indigenously. Although, the entire DAP manufacturing plant along with SAP and PAP has been conceived on zero effluent concept; occasional over flows, leakages and floor washings come out of the plant battery limits as effluent that needs proper treatment before its final discharge. The plant to its credit has a well built modern Effluent Treatment Plant (ETP) in which the effluent is being treated and then recycled to BAL mill in PAP or released out in the event of stoppage of PAP and conforming to the prescribed norms of Odisha State Pollution Control Board. At the behest of PPL, M/s SIMA Labs, New Delhi carried out in-situ toxicity tests at various points of the water streams. The Bio-assay test was carried out in 06th August to 08th August2025 with fresh water fishes locally available and with fishes from the Atharbanki river and local pond. Range finding Bio-assay (RFB), Static Bio-assay and In-situ Bio-assay was carried out at storm drains 1. storm water drain near zero point.

1.2 Project Setting

Paradeep Phosphates Limited is located in Kujang Tehsil of Jagatsinghpur District. The project site is situated at 20016'45.54" North latitude and 860 38' 43.7" East longitude and about 50 km from the Jagatsinghpur town. On the East of PPL, Paradeep port is situated.

This site is situate dinar emote area on the coast of Bay of Bengal and is mainly low lying area with a few creeks, sand dunes subjected to submersion of high tides. Paradeep Phosphates Limited is spreade over on an area of about 2284 Acres with Phosphatic fertilizer complex, township and gypsum storage ponds. It is one of the largest complex fertilizer plants in the country and produces Di-Ammonium Phosphate, NPK fertilizers as its final product with intermediate products like Sulfuric acid and Phosphoric acid. Mahanadi River is flowing at a distance of about 5km from the project site and meets Bay of Bengal which is about 3km away from the site.Athar Banki River is flowing along the boundary wall of the site and is between Paradeep port and plant site. Study area of the project site is shown in Fig.1.1. The mean sea level of the site is 0.6m to 3 m. Paradeep area is very much pronet of request and severe cyclonic storms and very windy during most of the times of the year. The average annual rainfall is 1500 mm most of which falls during June to September. Paradeep weather is highly humid due to the influence of the sea. The mean relative humidity varies from 75%to85% and the average wind speed varies from 12 to 70 Kmph.

The maximum temperature goes up to 40⁰C in summer while the minimum temperature is around 12⁰C in winter season. Seismically Paradeep lies in Zone III with an expected seismic intensity of VII on the modified Mercalle scale 1931, corresponding to horizontal seismic ground acceleration range of 18-140 cm/sec depending upon the ground conditions.

ETP PLANT



Guard Pond





Study Area - Fig 1.1



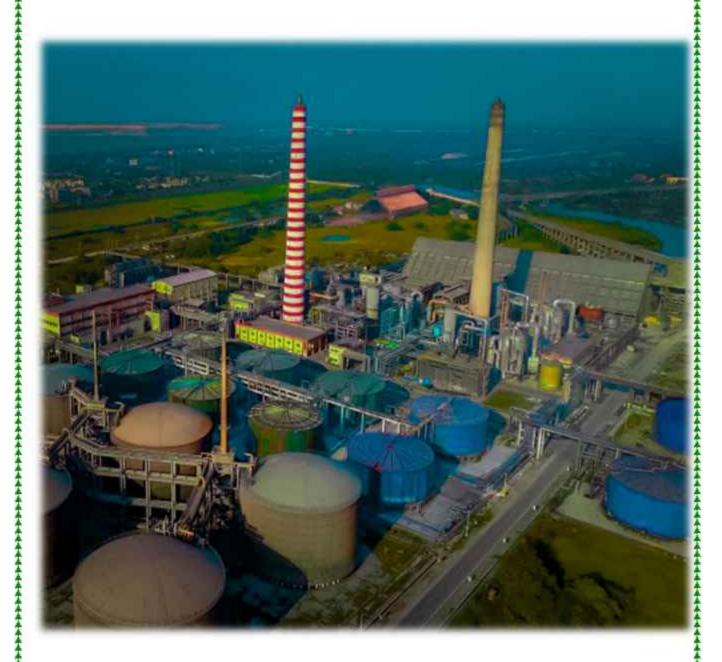
Plant at Glance

1.3 Utilities

The other offsite and support facilities include 5 x 10,000 MT atmospheric Ammonia storage tanks,6x10,000 MT Phosphoric acid storage tank,4x10,000 and 6000MT Sulphuric acid storage tanks well as 2x1500MT fuel oil tanks, bagging facilities and silos. The imported Ammonia and Phosphoric acid are pumped through pipeline from fertilizer berth of Paradeep port to storage tank. The water requirement for entire plant and colony are met from Taldanda canal, which runs from the Mahanadi barrage from Jobra of Cuttack city. The canal is situated at a distance of 4km from PPL.

Demine realization plant of capacity 3 x 120 and 2X 150 MT/hr is installed to meet requirement of CPP and sulphuric acid plant. In case of total power failure, the backup HT power is supplied through 3 MVA DG set.

Plant inside view



Report Submitted BY:SIMA LABS PVT.LTD

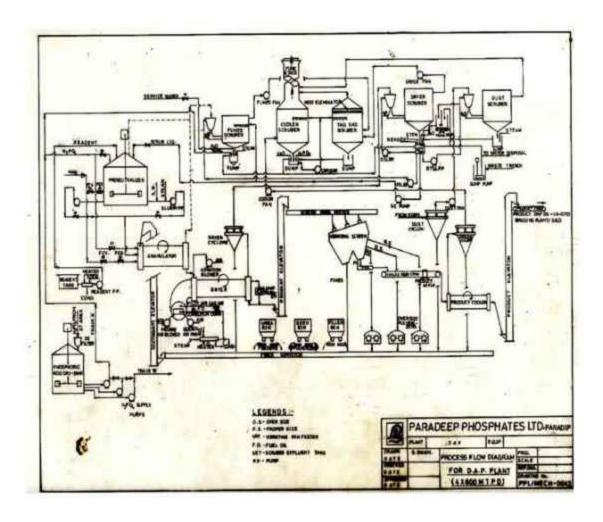
1.4 Brief Description of Manufacturing Process

1.4.1 Di-ammonium Phosphate Plant

The existing 1.9MM TPA DAP plant consist of our streams. The process is based on indigenous know how and M/s. Hindustan Dorr-Oliver Limited are the main engineering consultants for the DAP plant. The main raw materials used for production of DAP/NPK are Phosphoric acid, Ammonia, Sulphuric acid, MO Pand filler.

Phosphoric acid and Ammonia are pumped from storage tanks to pre neutralizer where they react with each other to a Amoleratioo f1.45 and a slurry of DAP and Mono ammonium Phosphate (MAP) are formed with about 80% solids. This slurry is again pumped to a rotary granulator where it is further ammoniated to convert MAP portion to DAP with amoleratioo f1.7to1.8.Wet DAP granules are then dried up by a counter current stream of hot air in arotarydryer. The dried up granules are screened for size separation in a double-deck vibrating screen. The fines and crushed oversize fraction of DAP is recycled back to granulator and the proper size material is coole dina product cooler. The cooled product is conveyed either to product silo(75000MTcapacity) for storage or to bagging plant for dispatch. The flow diagram of the process is shown in **Fig. 1.2**.

MANUFACTURING PROCESS FLOW DIAGRAM OFDAP PLANT

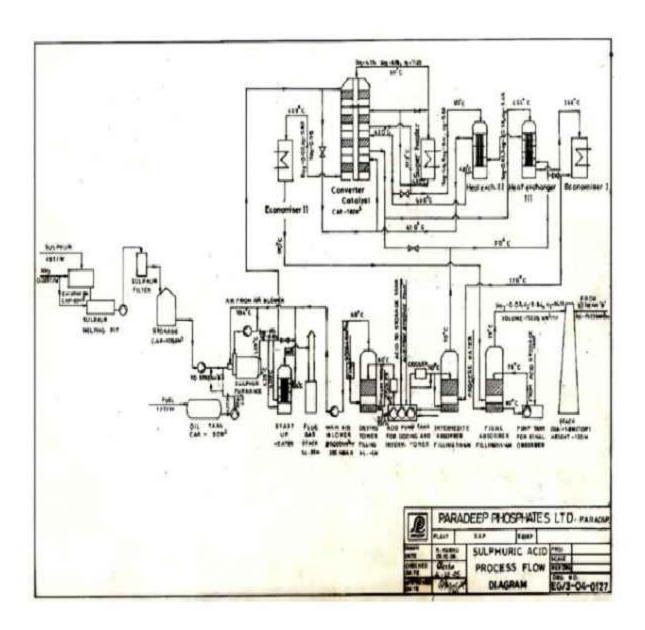


1.4.2 Sulphuric Acid Plant

Sulphuric acid plant consists of two streams, each of 1200 TPD capacity and one stream of 2000 MTPD .The plant is based on most modern Double Contact Double Absorption (DCDA) process. The engineering consultants were M/s. Lurgi Gmbh of Germany along with M/s. FACT Engineering and Design Organization (FEDO) as Indian Associate. The raw material for the Sulphuric acid plant is elemental sulphur which is imported and is transported to the Sulphur Silo. Sulphuris melted in a melting pit by means of heating coils fed with steam. The molten Sulphur is fed to the Sulphur burner where complete combustion of Sulphur takes place giving rise to SO2 The heat of combustion is withdrawn by means of a waste heat boiler where saturated steam of approximately 46 bar is generated. The gas, cooled to a temperature of 420°C, is fed to a converter having 4 catalyst beds. The final gas of 4thcatalyst bed, after getting cooled to a temperature of 170°C in an economizer, enters the final absorber where the SO3 is absorbed by 98.5% sulphuric acid. The remaining gas from the absorber passes through high efficiency filters located in the upper section of the absorber to eliminate spray acid mist.

The acid concentration in both the intermediate and final absorber is maintained by the addition of process water. The flow diagram of sulphuric acid process is shown in **Fig. 1.3**.

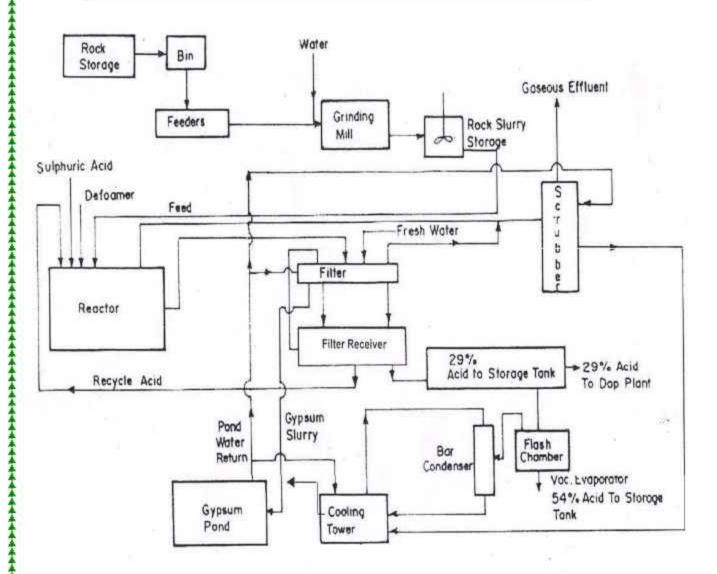
MANUFACTTURING PROCESS FLOW DIAGRAM OF SULPHURIC ACID PLANT



1.4.3 Phosphoric Acid Plant

The 1400 TPD single stream Phosphoric acid plant is based on foreign know how. The 600 TPD second stream Phosphoric acid plant is based on dry grinding principle. The engineering consultants are M/s. Jacobs International Inc. of Florida USA along with M/s. Hindustan Dorr- Oliver Ltd., Bombay as Indian counterpart. Rock phosphate is fed to a ball mill by an extractor weigher and wet grinding slurry of 65-75% solids is prepared. The slurry is fed to are actor where Sulphuric acid with 70-80% concentration and recycle Phosphoric acid is added. The reactor slurry proceeds through the reactor sections and under flows in to the vacuum cooler feed compartment and from where the slurry is pumped to vacuum cooler where degassing takes place. Defoamer is added to the reactor to in hi bit the formation of froth/foam. The slurry from vacuum cooler is pumped to a filter where Phosphoric acid is separated from gypsum. The cake in the filter is given four successive washings by filtrates of 12%P2O5,5%P2O5,heated pond water and a final wash respectively. The dewatered cake is removed after final wash, then the cake is made slurry and pumped to the Gypsum pond. The Phosphoric acid plant has a provision of concentration unit of capacity300MT/day for concentrating 29% dilute acid to52%with the use of evaporators. Normally 54% imported acid will be blended. With 29% acid for direct use in DAP plant. The flow diagram of Phosphoric acid process is shown inFig1.5.

FLOW DIAGRAM OF PHOSPHORIC ACID PLANT-I



The layout plan of the Phosphoric Fertilizer Complex is depicted in Fig.1.5.

2. SAMPLING POINTS

All the effluents from Sulphuric Acid Plant Port Operation & Off-sites are recycled to Phosphoric acid plant .Only surface runoff water is being collected at pond and pumped to ETP for treatment and after treatment the same treated effluent is being reused at PAP. There is no discharge from guard pond and through storm drain -2 .The only discharge point of the plant is "Inside the Storm Water Drain at Near Zero Point (Location1, asL1)"running at the eastern side of the plant near Zero Point. Sample is collected from the pre-determined point and analyzed for physic co – chemical parameters in SIMA Labs Pvt.Ltd. to monitor the water quality during observation Period. The analysis results are given in table – 2.

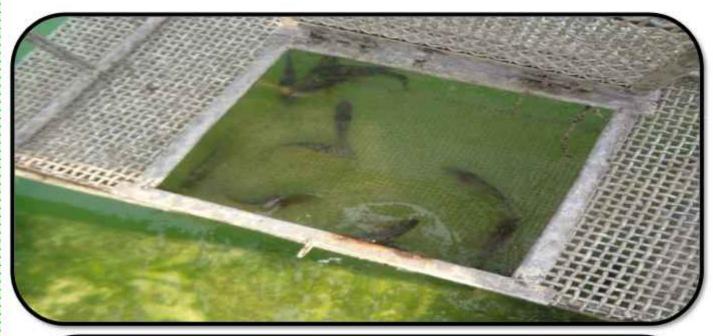
3. IMPACT OF STUDIES

Three types of investigations were made to evaluate the toxic conditions.

3.1 Range of Bioassay

To find out the concentration at which fish mortality occur, Range Finding Bio-assay (RFB) was carried out in the effluents sample collected by team from M/s SIMA Lab, Bhubaneswar on **06.08.2025**The Range finding Bioassay results are presented in **Table-I** for **Storm Drain-I& II (L1& L2)** using fresh water fishes and estuarine fishes available in Athar Banki creek.

Cage for Bio-assay study





Status during study period

Table 1

Bioassay Test Result for Sample Location L1& L2

Time Period of Testing (Hrs)	Location Identification					
	ı	.1	L2			
	Nos. OF Dead Fish	%oF Dead Fish	Nos. OF Dead Fish	%oF Dead Fish		
6	-	_	-	-		
12	-	Ξ	=	2		
24)=	-	_	-		
48	-	=	=	Ξ		
72	-	-	=	2		
96	3	3	3	3		

Water Sampling from Storm Drain 1

(Location)-L-1



Water Sampling from Storm Drain 2

(Location)-L-2



Report Submitted BY:SIMA LABS PVT.LTD

Diwakar Illu Anchul Supta

G.M Technical Environment

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Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT, APPROVED TESTING LABORATORIES)

A-3/7, Mayapuri Industrial Area, Ph-II, New Delhi - 110064 Address :

+(91)-(011) 43854300 Email reports@simalab.com CIN No. U74899DL1988PTC031785

Website: www.simalab.net | www.simalab.com



TEST REPORT

Party Code *issued to

*Sample Name

: P/ODH/043

Paradeep Phosphates Limited

: Strom Drain Water (Near Zero Point)

REPORT NO.

: SN0814000325

290:24'2

Fose: 24'2 355 88

1025

"Customer Ref No. *Reference Date

: NS : NS

Plant-PPL Township, Paradeep-754175, Odisha . . Date of Sampling Date of Received

: 06/08/2025 : 14/08/2025 : 22/08/2025

Date of Issue Start Date of Analysis

: 14/08/2025 : 22/08/2025

Date of Completion Environmental Condition

: 25±2*C,RH 50±15%

Sample Condition *Sample Qty.

: OK : 1 Ltr.

SOP/Sampling Plan

: SIMA/ENV/SOP/024

Test Method Deviation : NA Sample Collection

: Sample Collected By Us

RESULTS OF ANALYSIS

Reference : EP Act Standards

40.41-	le Description One Strom Drain Water sa	A STATE OF THE PARTY OF THE PAR	CONTRACTOR AND PROPERTY.		
3.NO.	Test Parameters	Units	Results	Method	Detection Limit
Che	mical Parameter	111	Challill Top		
1	pH	NA	7.33	15:3025 (P-11)	NA.
2	Total Suspended Solids	mg/L	<20	IS:3025 (P-17)	NA
3.	Total Dissolved Solids	mg/L	132	IS:3025 (P-16)	NA.
4.	Chemical Oxygen Demand	mg/L	8	IS:3025 (P-58)	NA.
5.	Biochemical Oxygen Demand (3 days at 27°G)	mg/L	≪0	IS:3025 (P-44)	NA NA
6.	Dissolved Phosphate (as PO4)	mg/L	0.53	IS:3025 (P-31)	NA.
Y.,	Sulphate (as SO4)	mg/L	18.8	IS:3025 (P-24)	NA.
В	Chloride (as Cl)	mg/L	17.6	IS:3025 (P-32)	NA:
9.	Fluoride (ws F)	mg/L	BOL.	APHA-4500 F-D	0.06
10.	Nitrate	mg/L	0.36	IS:3025 (P-34)	NA.
11.	Total Hardness (as CaCO3)	mg/L	75.2	IS:3025 (P-21)	NA.
2	Total Alkalinity (as CeCO3)	mg/L	62.1	IS:3025 (P-23)	NA.

(A) who

Anshul Gupta Reviewed By Diecel

Diwakar Jha

G.M Technical Environment

Authorized Signatory

This Test Report is not valid without a hologram.

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SIMA LABS

Sophisticated Industrial Materials
Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, May Ph-II, New

Phone : +(91)-(01' Email : reports@: CIN No : U74899D

Website: www.sima



TEST REPORT

Party	Code : P/ODH/043		REPORT N
S.No.	Test Parameters	Units	Results
13.	Electrical Conductivity (as 25°C)	μS/cm	203
14.	Turbidity	NTU	<1.0
15.	Dissolved Oxygen (as DO)	mg/L	4.6
16.	Ammonical Nitrogen (as N)	mg/L	BDL
17.	Iron (as Fe)	mg/L	0.347
Toxic	c Substance		
18.	Total Chromium (as Cr)	mg/L	BLQ

NA- Not Applicable, BDL- Below Detection Limit, BLQ- Below Limit of Quantification, LOQ- Limit of Note: Customer asked for the above tests only. The above tested parameters meets the require --- End of Test Report ---



<u>^</u>



SIMA LABS

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd.

(GOVT. APPROVED TESTING LABORATORIES)

Address : A-3/7, May Ph-II, New

Phone : +(91)-(011 Email : reports@s

CIN No : U74899DI Website : www.sima



TEST REPORT

Party Code *Issued to : P/ODH/043

Paradeep Phosphates Limited

REPORT N

*Customer

Plant-PPL Township, Paradeep-754175, Odisha . .

*Reference Date of San

Date of Rec

Date of Issu

Start Date c

Date of Con

*Sample Name : Strom Drain Water (Near Time Office)

Environmer Sample Cor

*Sample Qt

SOP/Sampl

Test Method

Sample Col

RESULTS OF ANALYSIS

Reference : EP Act Standards

S.No.	Test Parameters	Units	Results
Che	mical Parameter		
1.	pH	NA	7.35
2.	Total Suspended Solids	mg/L	<2.0
3.	Total Dissolved Solids	mg/L	127
4.	Chemical Oxygen Demand	mg/L	<5
5.	Biochemical Oxygen Demand (3 days at 27°C)	mg/L	<2.0
6.	Dissolved Phosphate (as PO4)	mg/L	0.46
7.	Sulphate (as SO4)	mg/L	16.6

Bio Assay & Toxicity Studies of Paradeen Phosphates Ltd. 2025

SIMA LABS

-(91)-(011) A3854300

Sophisticated Industri

Ph-II, New Delhi - 110064 +(91)-(011) 43854300 reports@simalab.com Email CIN No : U74899DL1988PTC631785

Sophisticated Industrial Materials Analytic Labs Pvt. Ltd. (GOVE APPROVED TESTING LABORATORIES)

Website: www.simalab.net! www.simalab.com



TEST REPORT

Code : P/ODH/043		REPORT N	10. ; SN08140	000425
Test Parameters	Units	Results	Method	Detection
Electrical Conductivity (as 25°C)	µS/cm	195	IS:3025 (P-14)	NA NA
Turbidity	NTU	<1.0	IS:3025 (P-10)	NA
Dissolved Oxygen (as DO)	mg/L.	4.0	IS:3025 (P-38)	NA.
Ammonical Nitrogen (as N)	mg/L	BDL	IS:3025 (P-34)	1.0
Iron (as Fe)	mg/L	0.321	IS:3025 (P-2)	NA.
c Substance	- 2			- 01
Total Chromium (as Cr)	mg/t.	BLQ	IS:3025 (P-2)	LOQ (0.02)
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	Test Parameters Electrical Conductivity (an 25°C) Turbidity Dissolved Oxygen (as DO) Ammonical Nitrogen (as N) Iron (as Fe) c Substance	Test Parameters Units Electrical Conductivity (as 25°C) µS/cm Turbidity Dissolved Oxygen (as DO) mg/L Ammonical Nitrogen (as N) mg/L Iron (as Fe) mg/L c Substance	Test Parameters	Test Parameters

Note: - Customer asked for the above tests only. The above tested parameters meets the requirement of EP Act Standard.

- End of Test Report -



Anshul Gupta

Reviewed By

Authorized Signatory

Diwakar Jha

G.M Technical Environment

2. The Results Issued refer only to the above tested earstie & appl

The flessuits issued retire city to the discrete sergie & applicable parameters. Emboreatrant of products is nestine retired or the enumeration of products as nestined as the enumeration of the displacement of the product of the enumeration of the displacement of th

7. SIMA Labb PM. List: will not be held responsible for the authenticity of any photocopies, in the service and or partially presented test reports.

8. SIMA Labb PM. List: will sensure all conscilive action as port our policy in case of any discrepancy in any sensor belong SIMA Labb 5.

8. The leading charges will be applicable in cease the results are reproductible.

10. Custodate carry will be issued on inharpeatine bases.

11. SIMA Stands for Supreducted instantive Materials Analytic.

Indicates details provided by the customer

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3.2 In-situ Bio-assay Toxicity Test

In-situ toxi city tests were carried out in pre-fabricated stainless steel cages (70cmx40cmx40cm) provided with inside lining of 2mm nylon mesh. The cages were allowed to dip into the channel by suspending them from the sides with the help of two nylon ropes. Two points of observation, (L1&L2)Storm Drain-1& 2selected for detailed study from 06.08.2025 -08.08.2025.



Cage for Bio-assay study

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

The tests were carried out at the above points with test species collected from Atharbanki Creek & Shyamkoti Creek and fresh water ponds. After proper conditioning observation on fish mortality were recorded at six hourly intervals with fresh water fishes and common fishes. The observations on fish mortality are presented below 50 numbers of fresh water fish species and estuarine species were kept in the cages for observations on mortality. These tests were carried out on 4 species of fresh water fishes and 4 estuarine species and one prawn species. The test fishes were collected from local ponds (fresh water fish) and Atharbanki River (Estuarine fish). The following fish species were selected for the *in-situ* toxicity tests.

Table-3
Aquatic Species Distribution

SI. No.	Species	L1	L2
1	Gong Tengra(Kantia)	08	08
2	Gadisha	10	10
3	Catfish(Magur)	05	05
4	Prawn	07	07
5	Singhi	06	06
6	Bami fish(Todi)	05	05
7	Kau	07	07
8	Seula	02	02
	Total	50	50

Table-4 LT50 / LT100

Sl. No.	Fish Species	L1		L2	
	ac or L ecture states	LT50	LT100	LT50	LT100
1	Gadisha	90 hr	96 hr	90 hr	96 hr
2	GongTengra(Kantia)	90 hr	96 hr	90 hr	96 hr
3	Catfish(Magur)	96 hr	96 hr	96 hr	96 hr
4	Prawn	90 hr	96 hr	90 hr	96 hr
5	Singhi	96 hr	96 hr	96 hr	96 hr
6	Bami fish(Todi)	96 hr	96 hr	96 hr	96 hr
7	Kau	96 hr	96 hr	96 hr	96 hr
8	Seula	90 hr	96 hr	90 hr	96 hr
J					

Note: LT 50 & LT 100:- Time at which 50% and 100%mortality occurs.

The results suggest that the treated effluent in Guard pond and the water in storm water drains don't show any perceptible toxic effect on fish species mentioned above available in the creek.

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

OXYGEN BALANCE IN THE EFFLUENT

Table - 5

DISSOLVE OXYGEN CONTENT IN WASTE WATER

Date	I	.2	L1	
	Day	Night	Day	Night
06.08.2025	4.4	5.2	4.6	5.2
07.08.2025	5.3	5.9	5.3	5.9
08.08.2025	4.7	6.2	4.7	6.2

The variations in the concentration of dissolved oxygen in the storm water drains and the guard pond during morning hours and evening hours do not indicate any anoxic conditions. Three days observations on dissolved oxygen at point L1& L2is given above.

3.3 Static Bio-assay

Static Bio-assay tests were carried out with the water from the guard pond; storm water drains in three nos. of Aquarium of 20 liters capacity. Local fish species were taken for the test .Samples were collected from the three points L1& L2 mentioned above. The studies reveal that under static conditions the water does not have any effect on fresh water fishes as shown in the **Table – 6**

Bio Assay & Toxicity Studies of Paradeep Phosphates Ltd. 2025

<u>Table</u>-6 LT50 / LT100

Sl.No.	Fish Species	L1				L2	
		LT50	LT100	LT50	LT100		
1	Gadisha	90 hr	96 hr	90 hr	96 hr		
2	Gong Tengra(Kantia)	96 hr	90 hr	96 hr	90 hr		
3	Catfish(Magur)	96 hr	96 hr	96 hr	96 hr		
4	Prawn	96 hr	90 hr	96 hr	90 hr		
5	Singhi	96 hr	96 hr	96 hr	96 hr		
6	Bami fish(Todi)	96 hr	96 hr	96 hr	96 hr		
7	Kau	96 hr	96 hr	96 hr	96 hr		
8	Seula	96 hr	96 hr	96 hr	96 hr		



Cage for Bio-assay study

4.0 FISH FAUNA IN ATHARBANKI & SHYAMAKOTI CREEK

Fishing is generally carried out in the ad joining Atharbanki & Shyamkoti Creek during the morning and evening hours. The species encountered in the creek, as ascertained from the local fisherman are given in **Table – 8.**

Table-8 Mass Distribution amongst the Available Species Estuarine Fish / Saline Fish

Local Name	Scientific Name	Approx.Size Of Catch	
Gadisha	Channa punctata	50-100gm	
Gong Tengra(Kantia)	Gogatasp	30-50gm	
Catfish(Magur)	Clarias batrachus	100-200gm	
Bagda Chingudi	Panaeusmonodon	05-20gm 20-50gm	
Singhi	Heteropneustes Fossilis		
Bami fish(Todi)	Anguilla bemgalensis	20-40gm	
Kau	Anabas festitues	30-80gm	
Seula	Channa striata	150-400gm	



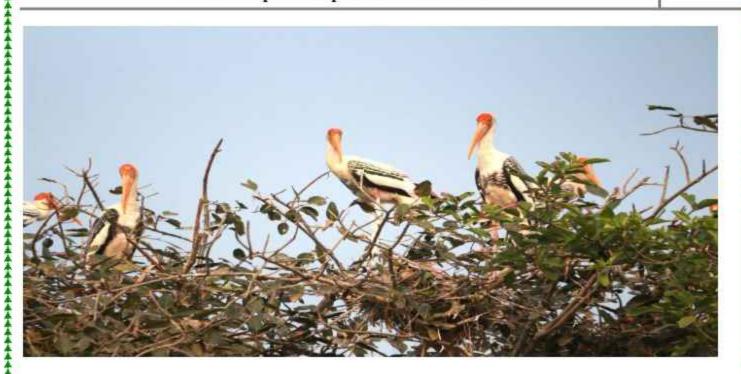
5.0 INFERENCE

The Bio-assay study carried out in the storm water drain-1&2 are found to be very much within the prescribed limit and non-toxic to the fish and fish food organisms.





Report Submitted By: SIMA LABS PVT.LTD.

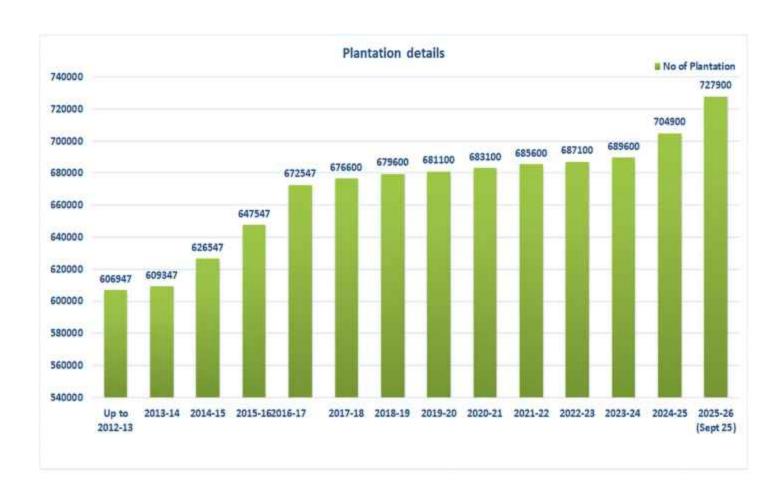




6.0 <u>ACKNOWLEDGEMET</u>

M/s SIMA Labs Pvt .Ltd. New Delhi express its deep gratitude to M/s. Paradeep Phosphates Limited for keeping faith onus & again entrusting the assignment for carrying out the Bio-Assay Toxi city Study.We thank Shri Palanisamy Vellusamy ,CMO& Unit Head, Mr. A K Tiwari ,GM (Projects) ,Mr. Anil Kumar Verma, GM(Production) ,Mr. Ambikesh Kumar Mishra ,Jt. GM(Env,Mgt) and Mr.Narayan Sahoo,Chief Manager(Env.Mgt) and Mr. Sambit Kumar Behera, Asst. Mgr (Env Mgt)for their whole hearted cooperation during the Study Period. The cooperation and hospitality extended by the other officials and staff of Paradeep Phosphates Limited is also gratefully acknowledged.

Annexure - III





Modern Test Center

CONSOLIDATED REPORT

Berhampur

Issued To: Paradeep Phosphates Limited PO: PPL Township, Paradeep Dist: Jagatsinghpur Odisha, India, Pin: 754145. Date of initiation of Test: 17/06/2025 Date of Completion of Test: 07/07/2025 ULR NO: TC531225000001854F

TO

ULR NO: TC531225000001856F

Date of receipt: 16/06/2025

TEST METHOD USED: BARC/2008/E/023

Sample submitted by PARADEEP PHOSPHATES LIMITED, ODISHA.

SAMPLE NO.	Place of Sampling	Name of the Sample	Qty in gm/Kg	Test Certificate No.	Test Requirement	Result Bq/Kg
RP-19			740gm	2113 36149	1-U-238	1 - (830.546 ± 90.675) 2 - (219.992 ± 11.428)
RP-26	Rock Phosphate from Rock Silo	ROCK PHOSPHATE	770gm	2113 36150	2- Ra-226	1- (808.239 ± 96.900) 2- (384.656 ± 15.057)
RP-29		PHOSPHATE	680gm	2113 36151		1- (828.276 ± 93.930) 2- (250.149 ± 12.911)

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

- 1) The results stated above relates to the sample tested only.
- This report in full or in part shall not be published, advertised, used for any legal action unless prior permission has been secured from the competent Authority of the laboratory.
- 3) The sample shall be kept for three months after the test and can be returned on request on payment of transport charges or shall be destroyed. Any customer complaint or by regulatory authority shall be entertained, if and only if the complaint is registered within one month from date of report.

Signature of CIEWITH Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

...... End of Report.....



ULR NO: TC531225000001854F

Modern Test Center

Accredited To ISO/IEC 17025:2017 through NABL

Berhampur

TC-5312 Office Address:-

Gandhi Nagar 5th line Extn. East,

Berhampur-760001, Dist-Ganjam (Odisha),

Visit us: www.moderntestcenter.com

Lab Address: -

Neelanchal Nagar 3rd lane,

Berhampur-760010, Dist-Ganjam (Odisha),

Phone: -0680 2403321-22

Mail: - moderntestcenter@gmail.com

Ref: -47090/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR

ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36149

TEST METHOD USED: BARC/2008/E/023

SAMPLE NO: RP-19

Place of Sampling: Rock Phosphate from Rock Silo

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

Name of the Sample

Batch No./Lot No. and Date of manufacture/

Collection/Sampling (if any)

Quantity

Brand Name (if any) b)

c) Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No .: Not Specified

: 740 gm

: Not available

: Estimation of 238U & 226Ra

: No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

a) Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by PARADEEP PHOSPHATES LIMITED, ODISHA.

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

b) Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

: No deviation

: No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg ⁻¹	(830.546 ± 90.675) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg ⁻¹	(219.992 ± 11.428) Bq.kg-1

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

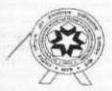
The results stated above relates to the sample tested only.

2) This report in full or in part shall not be published, advertised, used for any legal action unless prior permission has been secured from the competent Authority of the laboratory.

The sample shall be kept for three months after the test and can be returned on request on payment of transport charges or shall be destroyed. Any customer complaint or by regulatory authority shall be entertained, if and only if the complaint is registered within one month from date of report.

> Signature of CEWRH Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

	End	of	Repor	t
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ULR NO: TC531225000001855F

Modern Test Center

Accredited To ISO/IEC 17025:2017 through NABL

MC Priginal

Berhampur

Office Address:

Gandhi Nagar 8th line Extr. East,

Berhampur-760001, Dist-Ganjam (Odisha), Visit us: www.moderntestcenter.com Lab Address: -

Neelanchal Nagar 3rd lane,

Berhampur-760010, Dist-Ganjam (Odisha),

Phone:-0680 2403321-22

Mail: - moderntestcenter@gmail.com

Ref: -47091/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36150

TEST METHOD USED: BARC/2008/E/023

SAMPLE NO: RP-26

Place of Sampling: Rock Phosphate from Rock Silo

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

a) Name of the Sample

 b) Batch No./Lot No. and Date of manufacture/ Collection/Sampling (if any)

a) Quantity

b) Brand Name (if any)

c) Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No.: Not Specified

: 770 gm

: Not available

: Estimation of ²³⁸U & ²²⁶Ra

: No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

a) Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by

PARADEEP PHOSPHATES LIMITED, ODISHA.

: ------

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

b) Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

.....

: No deviation

: No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg ⁻¹	(808.239 ± 96.900) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg-1	(384.656 ± 15.057) Bq.kg-1

IMPRESSION: The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

1) The results stated above relates to the sample tested only.

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The sample shall be kept for three months after the test and can be returned on request on payment of transport charges or shall be destroyed. Any customer complaint or by regulatory authority shall be entertained if and not if the complaint is registered within one month from date of report.

Signature of the With Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

 End	of	Report
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ULR NO: TC531225000001856F

Modern Test Center

Accredited To ISO/IEC 17025:2017 through NABL



Berhampur

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Neelanchal Nagar 3rd lane,

Berhampur-760010, Dist-Ganjam (Odisha),

Phone: -0680 2403321-22

Mail: - moderntestcenterifigmail.com

Ref: -47092/MTC/LF/7.8/15/2025

DATE: 07/07/2025

TEST CERTIFICATE

Issued to: PARADEEP PHOSPHATES LIMITED

PO: PPL TOWNSHIP, PARADEEP

DIST: JAGATSINGHPUR

ODISHA, INDIA, PIN: 754145.

Customer Reference No. Nil Date: 05/05/2025

Date of Receipt: 16/06/2025

TEST CERTIFICATE NO: 2113 36151

TEST METHOD USED: BARC/2008/E/023

Place of Sampling: Rock Phosphate from Rock Silo

SAMPLE NO: RP-29

Date of Initiation of Test : 17/06/2025 Date of Completion of Test: 07/07/2025

DATE: 07/07/2025

PART A: PARTICULARS OF INFORMATION SUBMITTED BY THE CUSTOMER

Name of the Sample

Batch No./Lot No. and Date of manufacture/

Collection/Sampling (if any)

Quantity

Brand Name (if any)

Parameters of the test suggested

d) Any other information

: ROCK PHOSPHATE

: Batch No .: Not Specified

680 am

Not available

Estimation of 238U & 226Ra : No Specific Observation

PART B: SUPPLIMENTARY INFORMATIONS

a) Reference to Sampling plan (By the lab/Submitted by the party)

: Sample submitted by

PARADEEP PHOSPHATES LIMITED, ODISHA.

By Lab: i) Location

ii) Date & time of collection

iii) Name of lab representative (Wherever applicable)

Supporting documents like graphs, tables,

Sketches for the measurements taken and

The results derived, if any to be attached

c) Deviation from the test methods as

Prescribed in relevant ISS / Work Instructions, if any

d) Deviation from environmental condition, if any

: No deviation : No deviation

PART C: TEST RESULTS

SI. No	Parameters testing	Limit as per AERB directive- 01/2010 (table-3) Dt. 26/11/2010	Result Obtained
1	U-238	1000 Bq.kg ⁻¹	(828.276 ± 93.930) Bq.kg ⁻¹
2	Ra-226	1000 Bq.kg ⁻¹	(250.149 ± 12.911) Bq.kg ⁻¹

IMPRESSION: - The measured Value of U-238 & Ra-226 are below the clearance level of radionuclides of natural origin in bulk solid materials, as per AERB directive- 01/2010(table-3) dated 26/11/2010.

PART D: REMARKS

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> Signature of CE With Seal Name: Rajendra Kumar Mishra Designation: Chief Executive

 End	of	Reno	ort.			
 -	-	to provide and		 ********	 	,,,,

Annexure-V

Quantitative Risk Assessment (QRA)

Paradeep Phosphates Limited

Sl. No	Recommendations	Compliance status
1	The emergency isolation valves and their actuating systems on the liquid inlet and outlet lines of the storage tanks should be of high reliability conforming to Safety Integrity Level SIL 3. These valves should be air failure-to-close type and provided with partial strike testing arrangement. A review may be conducted to ascertain the current position and take improvement action as necessary.	All liquid Ammonia storage tank outlet control valves are air fail to close except storage tank NO 4& 5. Storage tank NO- 4 & 5 liquid outlet Control valves have air receiver before them. In case of ammonia tank area air supply fails for any reason, these two tanks can supply the ammonia to DAP plants.
2	The following safety interlocks of the storage tanks should be reviewed for their reliability: i-Overfill protection system ii-High-High Level interlock iii-Overpressure protection system iv- High-High Pressure interlock v-Protection against excessive negative pressure in the tank vi-Low-Low Pressure interlock	All the following safety interlock control valve systems of storage tanks are reviewed for their reliability which are in working condition. The Record of the same is being maintained. i-Overfill protection system ii-High-High Level interlock iii-Overpressure protection system iv- High-High Pressure interlock v-Protection against excessive negative pressure in the tank vi-Low-Low Pressure interlock
3	Consider providing emergency switches for operating the ROVs additionally in the field at a suitable location for prompt operation of the valves without having to communicate with the Control Room in an emergency. The electric actuator of the MOV at the jetty will not operate in the event of power failure. Hence, it is important to ensure that the hand wheel arrangement is in good working condition.	One Emergency switch is available at local and one emergency switch is available in control room also for operating ROV. Hand wheel arrangement is in good working condition.
4	Increase the number of ammonia leak detectors (with alarm and hooter) for more effective surveillance. Presently one detector is installed at the jetty and at the transfer pump area. Locations like outlet liquid outlet valves, refrigeration compressor / ammonia pre-heater and ammonia tanker loading area may be considered for the additional detectors. These detectors should be connected to the Control Room.	Ammonia leak detectors (5 nos) are installed at the following places. 1) At conveyors Zero point. 2) NH3 transfer pump 1 area 3) NH3 transfer pump 4 and tanker loading area 4) Refrigeration Compressor house area 5) Ammonia storage Tank No 5 area DAP granulator area.

5	The full containment (cup-in-tank) design of the tanks has a high reliability and a catastrophic failure of the inner and outer tanks at the same time is not considered. Hence a dyke / bund wall may not be necessary from	Bund/dyke wall for storage and transfer pump areas may obstruct the pathways and hence the same was not provided. However fire hydrant system is available inside the plant and Water spray nozzle system (Fire monitor) is available
	the point of view of such a failure. However, spillage due to failure of valves, fittings, instrument tapings etc. in the pipeline system connected to the tanks has a higher probability of occurring. Containment of liquid spills and minimizing the vapor escaping into adjoining areas will go a long way in mitigating the effect of toxic release. With this in view, the following recommendations are made: i-Provide bund / dyke for the storage tanks and the transfer pump areas. Making the bund/dyke from insulating concrete can also reduce the evaporation rate. ii-Provide water curtain at the periphery of the bund walls to be operated in case of a spillage, to restrict the escape of ammonia vapors to adjoining areas. Provide water curtains also around the valves/safety valves area on top of the storage tanks with isolation valves that can be operated from the ground level, preferably by remote operated valves. Water curtains may	which can spray up to Ammonia tank top in case of emergency.
6	also be provided around the compressor area. Emergency power from the DG Set and alternative cooling water supply arrangement should be available for running the refrigeration compressors during outage of normal supply.	Emergency power supply for cooling Tower pump is available through DG set.
7	A large number of Instruments and safety devices are provided for the safe operation of the storage system. Scheduled and effective maintenance of the instruments and safety devices should be ensured and properly documented.	We are regularly checking, maintaining and documenting the records of all instruments provided in Storage tank.
8	Service and test all PSVs and TSVs at regular intervals and properly tracked. Identification tags showing set pressures, last test date, date of next test due may be provided on each safety valve.	PSVs of storage tanks are being tested periodically. Set pressure of safety valve is already painted on the valve Body. Display of last test dates tags on safety valves provided.
9	The SOP for transfer of ammonia into the storage tank should elaborate the risk of overpressure and overfilling – the two most common causes for failure of storage tanks - and the actions / precautions to be taken to prevent them.	SOP for transfer of Ammonia in to storage tank is to prevent against risk of over pressure and over filling is available.

10	The flare stack and its ignition system should be tested periodically.	We are testing the Flare stack and its ignition system periodically and the record of the same is being maintained.
11	The isolation valves, especially the vent valve should be 'eased' periodically to make sure that these will operate freely in case of need.	The isolation valve especially the vent valve is being 'eased' periodically to operate freely in case of need
12	Monitor moisture content in liquid ammonia in each shipment. Presence of 0.2% water in liquid ammonia provides protection against stress corrosion cracking (SCC).	We are receiving Ammonia that contains around 0.2% moisture in liquid Ammonia.
13	The tank shell plates are susceptible to stress corrosion cracking (SCC) in presence of oxygen. During normal service no oxygen is present inside the tank. However, oxygen will enter the system during decommissioning, testing and maintenance. Under such circumstances great care is to be taken for removal of oxygen before taking the tank back in service	We are following SOP and taking extra care by doing Nitrogen purging, N2 gas exchanging and Ammonia gas exchanging for removal of oxygen before taking the tank back in service.
14	As a practice, the drains of pipelines, equipments, instruments etc. that are nor frequently used should be plugged or blinded in a consistent manner	All drains of pipe lines, equipments and instruments that are not being used frequently were blinded and the same practice is being followed strictly.
15	A scheme to monitor the settlement if any of the foundation of the Storage Tank may be put in place. An expert study of the condition of the foundation and piles may also be carried out.	Settlement checking of the foundation of all ammonia storage tanks are being carried out periodically by our Civil department. Condition of foundation and piles are being carried out on regular basis.
16	Carry out detailed periodic inspection of the tanks to ensure their integrity.	Periodic inspection of the tanks is being carried out to ensure their integrity.
17	Review the inventory management practice to determine if the maximum permitted storage in a tank can be lowered from the current level of ~80%.	
18	Ammonia Unloading During ammonia unloading from ship tanker, necessary patrolling and surveillance is to be ensured to prevent emergency due to major leak in the pipeline.	Our operation and maintenance team is taking care for zero leakage by preventive maintenance further during Ammonia unloading, our patrolling team is available to ensure for preventing emergency due to any major leak in pipe line.
19	Tanker Loading Use a detailed checklist to inspect the ammonia tanker before it is accepted for loading. Only tankers having valid test certificates and fulfilling other conditions should be accepted for loading.	Check list and SOP has been provided for Ammonia tanker loading. We are allowing those tankers only after verification of valid certificates and fulfilling other conditions.

20	The ammonia hoses should be hydraulically pressure tested periodically and a record should be maintained. An identification tag with the test details and the due date for next test should be attached to the hoses. There should also be a replacement schedule for the hoses.	This condition is not applicable to us since we are not using hoses for loading ammonia tankers.
21	Keep SCBAs handy at the tanker loading area while loading tankers. The loading operator alone, with PPE, shall have access to the tanker during loading activity. Others like the drivers may stay away.	We are keeping two no of SCBAs and 6 no of masks and other PPEs at site always /while loading tankers.
22	The tanker drivers shall be trained in ammonia tanker safety and a record shall be maintained.	Training to drivers is being given regularly. Record is being maintained.
23	The tanker should carry respiratory protection PPE for the drivers for use in emergencies.	Strict instructions have been given to Tanker owners to carry respiratory protection PPE for their drivers for use in emergencies and the same is being ensured.
24	DAP Plant Provide a ROV in the liquid ammonia line at the battery limit of DAP Plant to enable quick isolation of supply in case of a major leak in DAP Plant. This valve may be operable from the DAP Control Room as well as from the field.	ROVs in liquid ammonia line is available at battery limit of DAP Plant to enable quick isolation of supply in case of a major leak in DAP Plant and the same valve can be operated from the DAP Control Room as well as from the field.
25	General Breathing apparatus with encapsulated suits should be stocked in sufficient numbers to manage rescue works in case of major ammonia leak. As the number of breathing apparatus, spare cylinders, gas masks etc. required to tackle a major emergency will be large compared with presently stored numbers, it is suggested that a special storage facility may be provided at a suitable place for storing them and maintaining them properly for use in emergencies.	We have kept one suit in control room, one in jetty and two no in F&S department Total 29 Nos of breathing apparatus are available with F&S department to manage rescue works in case of major ammonia leak One compressor is also available in F&S Department for refilling of BA set.
26	Plant personnel should be trained to undertake emergency measures in case of ammonia disaster. At least 30% of the personnel employed should also be trained to carry out rescue work.	Mock drills, Onsite emergency plan training are being conducted regularly by F&S Department and our plant personnel are well trained to undertake emergency measures in case of ammonia disaster.
27	Review the number and location of wind socks installed in the plants and township areas.	Total 14 no of wind socks are installed at the following areas 1) WTP-2, Offsite-3, PAP/SAP area-4), Gate house near F&S depart2, DAP-1 PPL
		Township and Navaratna Building-2.

	Efforts should be concentrated on reducing the probability of release of Chlorine in the chlorine handling area - WTP - especially since this is in the high risk region of township.	
29	Only chlorine toners with assured integrity should be allowed. It is suggested that the management insist on a copy of the test certificate to accompany the toners when they are received.	Not Applicable as chlorine handling system has already replaced as above.
30	The Chlorine toner in use should be fitted with a leak extraction hood connected to a caustic scrubbing system. The caustic scrubbing system (blower, caustic circulation pump etc.) should always be kept in a ready-to-start condition. It is desirable to have the system to start automatically based on chlorine leak detector for added safety.	Not Applicable as chlorine handling system has already replaced as above.
31	The chlorine sensor installed in WTP should be fitted with a hooter to alert personnel about a leak. It should be serviced and calibration checked periodically.	Not Applicable as chlorine handling system has already replaced as above.
32	The toner leak arrestor kit inspected at regular intervals to ensure that all items are available in the kit. A list of items should be available in the kit.	Not Applicable as chlorine handling system has already replaced as above.
33	A programme for replacing the chlorine toner connecting tubes at fixed frequency is to be implemented.	Not Applicable as chlorine handling system has already replaced as above.
34	Ensure that gaskets of correct material is procured and used. As a safe practice, a fresh gasket should be used every time tubing is connected and the used gaskets should be destroyed to avoid accidental reuse.	Not Applicable as chlorine handling system has already replaced as above.
35	Respiratory protection in the area is self- contained breathing apparatus giving supply for 30-40 minutes, with audible alarm when the pressure falls below a stipulated figure. Sufficient number of these SCBA should be stocked at a convenient place nearby where these can be accessed without difficulty in an emergency.	Two numbers of SCBAs are available in WTI control room and 4 Nos available in F&S department in case of emergency.
36	Escape suits for use only for emergency evacuation, in adequate numbers, should also be available.	Two no of escape suits are available for emergency evacuation in control room. We have emergency stock available in F&S Department also.
37	More than having these self-contained breathing apparatus, it is very important that the users are imparted adequate training. The	Our operating staff are well trained and als adequate training is imparted periodically.

	upkeep of this safety equipment is equally important	
38	As a measure to remove the risk emanating from the use of chlorine toner on a long term basis, it is recommended to consider changing over from chlorine to chlorine dioxide for treating water.	Replacement of chlorine with chlorine dioxide is implemented.
39	Since the residents and the occupants of several establishments in the township are likely to get exposed to the chlorine leak, the following additional measures are suggested: i-Provide wind socks at several locations surrounding the WTP to guide the people in case of a gas leak. ii-Educate the residents and other members of the public on the actions to be taken in the event of a leak. iii-Develop gas shelters at a few places in the township to be identified for the purpose and equip these shelters with PPEs and communication equipment. Some of the rooms / halls in existing buildings can be nominated for this purpose.	1) Wind socks are provided in township and WTP area to guide the people in case of a gas leak. 2) We are Educating our residents and other members of the public on the actions to be taken in the event of a leak.
40	Fire – FO and HSD Storage Tanks and Day Tanks A detailed inspection of the storage and day tanks should be carried out at regular intervals to ensure the mechanical integrity of the tanks.	Inspection of storage and day tanks is being carried out periodically by our E&I Department to ensure the mechanical integrity of the tanks.
41	The monitoring instruments of the tanks for level and temperature should be maintained in good condition and the tank conditions monitored regularly.	Level and Temperature monitoring instruments are being maintained in good condition by our Instrumentation department. Records are maintained
42	The fire hydrants, monitors, foam trolleys and hose boxes near the storage tanks and day tanks should be identified for more focused maintenance and upkeep	Fire hydrants, foam trolleys and hose boxes Foam type and CO2 Fire Extinguishers and fire buckets are kept near the storage tanks.
43	Adequate quantity of foam to be stored in the premises. Additional inventory of foam should be maintained in the Fire Station / Fire-, Foam Tenders	Adequate quantity of foam is stored in premises and additional quantity is being maintained by F&S department
44	In the storage tank areas, the fire fighting procedure may be displayed for the information of the plant personnel who will be the first responders in the event of a fire.	Fire fighting procedure is already displayed near storage tank area.
45	In view of its importance as secondary containment in the case of a tank failure or other spillages, the integrity of the dykes of the tanks should be ensured at all times. Any drains or other outlets from the dyke should	The drains and other outlets from the dyke are normally kept closed. We open these drains only under supervision for draining water.

	remain closed except when opened under supervision for draining water or spillage.	
46	Clean the flame arrestors on the tank vents at regular intervals to ensure that they are clear of choking which could lead to pressure / vacuum condition in the tanks.	Not applicable.
47	Ensure that the storage tanks are covered by adequate lightning protection.	Lightening protection is available
48	The unloading hoses should be inspected periodically and maintained in good condition.	We do not use unloading hoses and hence not applicable.
49	Ensure that all hot works on or near the tanks are carried out under safe work permits.	SWP system is being followed strictly.
50	Install a system of Manual Fire Call Points in the factory, connected to a control panel in the Fire Station to reduce the response time to fires.	Already in place.



ଓଡ଼ିଶା ओड़िशा ODISHA

No. 44139

FORM K

AGREEMENT FOR SUPPLY OF WATER FOR THE PURPOSE OF INDUSTRIAL/COMMERCIAL USE

THIS AGREEMENT is made on 15TH November, 2024 effect from 1st December 2024 between Sri Palanisamy Velusamy, son of Sri Velusamy, resident of village; PPL Township, PS: Paradeep, District: Jagatsinghpur by profession "Chief Manufacturing Officers. Unit Head" Paradeep Phosphates Ltd. The authorized representative of Paradeep Phosphates Ltd, Paradeep (hereinafter called the "Applicant") of the First Part.

AND

Sri Anil Kumar Verma, Son of Shri Mehetaru Ram Verma, resident of Village: PPL Township, PS: Paradeep, District – Jagatsinghpur by Profession General Manager (Production), Paradeep Phosphates Ltd, Paradeep and (2) Prachi Sourabh Panda, Son of Late Bijayananda Panda, resident of Village: PPL Township, PS: Paradeep, District-Jagatsinghpur by Profession Deputy General Manager (Production): (hereinafter referred to as the "Sureties") of the Second Part;

Dehabestu Cohoo
Novocate Calana High Count
Regal No. 322107
Regal No. 323107
Regal No. 389, 9938553340

MANTA SAHAJEE

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AND

The Government of Odisha which expression unless repugnant to the context, shall include his successors and assigns (hereinafter called "the Government") of the Third Part

WHEREAS, the applicant has made an application for the supply of water from Government water source/Irrigation works for the period as mentioned in the Schedule here to annexed;

And

charged for such supply in the manner hereinafter appearing and the Government has agreed to supply water for the purpose specified in the schedule annexed hereto.

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Regd No. 32 1/07
Regd No. 89 943855334

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Purpose for which water will be supplied (1)	Volume of water, if any (2)	Period of supply (3)	The place at which it will be supplied (4)
Industrial purpose	5MGD (inclusive of Domestic use)	01.12.2024 To 30.11.2025	P.P.L Reservoir

NOW THIS AGREEMENT witness as follows:

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Kujang Court

- In pursuance of the said agreement and in consideration of supply of water to be made to the applicant, the applicant and sureties hereby jointly and severally covenant with the Government as follows:
 - a) The applicant shall pay at the rate of Rs.10.08 (Rupees Ten and Eight Paisa) Pet M3 within stipulated date mentioned on the demand notice.
 - b) The applicant shall make suitable arrangement to take the water from the Government water source/Irrigation works at which it will be supplied.
 - c) The applicant shall not use the water supplied to him for any purpose other than that which is specified in the said Schedule.
- 2. If the sum aforesaid or any part thereof, is not paid on or before the date specified into this agreement it shall become payable at once (unless the Government sanctions for special reason on extension of time) and the applicant and the sureties shall be liable jointly and severally to pay the same with compound interest at the rate of two percent per mensem from the date of default. All amount due to the Government under the terms of these presents shall if not paid in time, be recoverable as a public demand under the Orissa Public Demands Recovery Act 1962.

The applicant shall be liable for criminal and civil action if by drawl of water, the plants of any third party are affected and shall indemnify the Government against all claims for damage preferred by person or persons affected by the permission granted.

- The applicant shall not without prior permission in writing from the Government lay pipe line on Government or communal lands. If the pipe lines have to pass through Government lands permission of the Government for this shall be taken separately which may be granted subject to the protection of rights of Government or community, as the case may be.
- (iii) The applicant shall not draw or lift water more than the quantity mentioned in the requisition or order and not exceeding the volume mentioned in the Schedule except with the prior approval of the Government. The Engineer concerned shall assess the fees to be charged as per Unit/quantity of water drawn or allocated whichever is higher. If drawl is more than the allocation, a penal rate at six times the rate specified in Schedule II and III shall be charged on the quantity of excess drawl, in addition to the normal bill on allocated quantity. The excess drawl is permissible for a maximum period of six months, within which the licensee shall have to apply for a higher

Regd No. 32 1/07

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Paradeep Phosphates Limited
Paradeep-754145 (Odisha)

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allocation of water with reasons and where the licensee fails to so apply for such higher allocation or where the licensee is refused for such higher allocation, the agreement shall be liable to cancellation and the water supplied shall be stopped thereafter.

- (iv) The permission granted shall not be deemed to exempt the applicant from liability to payment of water charges lawfully assessable at the rate as may be prescribed by Government from time to time.
- (v) Government reserves the right to suspend or cancel the permission in case of violation of any of the covenants.
- 4. The applicant at his own cost shall install a flow meter or a suitable measuring device for measurement of water drawn or lifted by him from the Government source/Irrigation works as per the procedure laid down in rule 23-A(b). The Superintending Engineer concerned shall visit location of drawl of lifting of water, verify the quantities of water drawn or lifted by the applicant and ensure such control as may be necessary for administering the drawing or lifting of water. Assessment of water rate shall be made as per the quantity of water drawn or allocated whichever is higher. In case of any defect or non-functioning of the Flow meter, the licensee shall bring the fact to the notice of the concerned Executive Engineer forthwith and take appropriate steps to remove the defects in the meter or replacement thereof within a period of two months and in such cases the fees shall be charged on quantity of water allocated for the said period of three months or till the defects in the Meter is removed or Meter is replaced as the case may be, whichever is earlier, and where the licensee fails to bring the defect or non-functioning of the Meter to the notice of the concerned Superintending Engineer or fails to remove the defects in the Meter or to replace the same, as the case may be, within the stipulated period the agreement shall be liable to cancellation

of the project. For proper test of such effluent there shall be computerized testing system and the applicant shall give details of effluent discharged in the natural source (in river and nala)

6. For construction of head works and control mechanism i.e., intake well, Pump house and other related facilities, M/s. Paradeep Phosphates Ltd will get the land leased in their favor through IDCO as is done in respect of any other government land required by the industry, IDCO will make available land on long term lease to M/s. Paradeep Phosphates Ltd. The continuance of the lease agreement will be subject to the

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and thereafter water supply shall be stopped.

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condition that the industry shall pay water charges as per prevailing water rate and all other dues of Government and IDCO from time to time.

- 7. M/s. Paradeep Phosphates Ltd., would require to pay three months advance water charges in favor of Superintending Engineer concerned in shape of Bank draft or F.D.R duly discharged by the company as non-interest bearing security deposit and for nine months Bank Guarantee duly pledged in favor of the concerned Superintending Engineer. Onus of maintain the Bank Guarantee lies with the company.
- 8. In case of water supply for M/s. Paradeep Phosphates Ltd, is to be met from common source through a sharing mechanism, such common infrastructure for drawD of water will be constructed, maintained and operated either by IDCO or Special purpose Vehicle (SPV) after taking due clearance from IDCO. Water will be supplied to M/s. Paradeep Phosphates Ltd, by IDCO/SPV and they would also be liable for payment of water rate to the Government and will in turn have arrangements as similar therein as clauses (6) and (7) of this agreement.
- 9. M/s. Paradeep Phosphates Ltd., drawing or allocated water from reservoir for it uses, shall sign supplementary agreement with the Odisha Hydro Power Corporation Limited, to compensate the loss of energy generation due to its drawl and the Odisha Hydro Power Corporation Limited, shall raise demands for compensation of loss of energy generation within first week of every month against the quantity of water drawn or allocated, whichever is higher.
- 10. They will not disturb the normal flow of water so that riparian rights in the downstream will be affected and the company shall have no claim on the account.
- 11. The drawl mechanism for raw water and disposal system of effluent to be established by the industry without disturbing existing eco system and environmental set up.
- 12. The Rehabilitation and Resettlement Action Plan/Welfare Action plan, if so, required will be prepared in conformity with the current Orissa Rehabilitation and Resettlement policy and executed by the company at its own cost under the supervision of the Water Resources Department and the Collector of the District, Jagatsinghpur.
- 13. M/s. Paradeep Phosphates Ltd. Shall not claim as a matter of right to get the desired quantity of the water during non-monsoon and lean period to meet their full industrial

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- use and the company has to make adequate storage facility in their own land for supply of water to their plant during such period.
- 14. The safety design of all the structures lies fully on the company.
- 15. In case of any dispute/arising out of this agreement, the same shall be referred to Government and the decision of the Government in water Resources Department shall be final.
- 16. Any surplus power from the Captive Power Plant shall be sold my M/s Paradeep Phosphates Ltd., to GRIDCO or any other entity to be notified by the State Government under mutually acceptable terms & conditions.
- 17. The allocation of water will automatically lapse if the company does not use the water for the purpose applied for within three years of allotment.
- 18. This agreement shall be valid for a period of 1 year i.e., up to 30.11.2025 subject to renewal of the same by the concerned Superintending Engineer. For the renewal of agreement, the concerned drawee has to apply minimum three months before the expiry of agreement.
- 19. If the industry is found to be drawing water unauthorized before signing the agreement/installation of flow meter, the concerned Superintending Engineer will charge penal rate at six times the normal rate as provided Schedule II & III.
- Government shall be at liberty to review the water allocation unilaterally in face of exigencies.

The concerned Superintending Engineer or his authorized representatives reserves the tight to inspect all installations of drawl and disposal mechanism during land after construction including intake structure, flow meter and treatment plant.

Paradeep Phosphates Ltd., will have to show clearly in water management plan as to what storage facility the company will create for the lean season and to what extent and how the water is going to be recycled which shall be a part of the project report of the unit.

23. M/s. Paradeep Phosphates Ltd., may engage at their own cost consultant(s) experienced in the field to take up field investigations, prepare, design and drawing to set up the water supply scheme for drawing water from Government water Source/Irrigation works for their proposed plant. The actual work will start after approval of the scheme by the competent authority of water Resources Department who can inspect the work during the construction.

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- 24. The exact place of lifting will be decided in consultation with the authority of water
- 25. The industry shall have to pay commitment charges which are equivalent to 5% of the cost of unutilized water (allocated quantity-quantity of water utilized) in addition to payment of usual water rate for quantity of water being utilized as per DoWR Notification No. 13233/WR/dated.04.6.2016
- 26. The license fees for drawl or allocation of water shall be enhanced @10% per annum.
- 27. Department of water Resources shall not be held responsible for non-availability of water due to dry season, disruption, repair and maintenance of canal/reservoir. In witness whereof the Parties hereto have put their hands and seals the day and year first above written.

In the presence of Witnesses:

Brasanta Kumar Das. 1. Prasant Kumar Das

BEJOY Kuman Shaw 2. Bijoy Kumar Shaw

Signature of Applicant

Palanisamy Welland Soluting Officer and Unit Head Paradeep Phosphates Limited Paradeep-754145 (Odisha)

Signature of Sureties

1. Anil Kumar Verma

frail Sourable Panda



SIGNATURE OF SUPERINTENDING ENGINEER

advocate disha High Court Regd No 2 1421/07 COD -8530*1789 943855334

NEERI Recommendations & PPL Compliance

NEERI Recommendations	Action taken by PPL
 The "L" shaped area near ETP- needs remediation as per the measures suggested. 	As per the measures suggested, The "L" shaped area near ETP has already been neutralized by using mixture of lime solution.
ii) The Sulphur muck disposal site near factory main gate - needs remediation .	As per the measures suggested Area near main gate has already been neutralized and plantation done.
iii) The Sulphur muck dump site near the scrap yard- can be taken care by natural attenuation	The Sulphur muck dump site near the scrap yard has already been cleaned and sulphur muck was used in DAP plant as filler. After that sulphur muck is being stored at earmarked place and being used in DAP as filler.
iv) The oil contaminated site near offsite area- The traces of oil remaining at this site may be taken care by natural attenuation.	The oil contaminated site near offsite area has already cleaned and developed.
v) The oil contaminated site near workshop area - The traces of oil remaining at this site may be taken care by natural attenuation.	
vi) Old spent catalyst disposal site- it is recommended that PPL should continue to monitor so as to asses the possibility of contamination in terms of vanadium, if any.	Old spent catalyst disposal site has already closed and sold to authorized party M/s Resustainability, Sukinda (Odisha).
vii) Phosphogypsum contaminated site near railway yard - needs remediation as per the measures suggested. In order to prevent further contamination of soil and groundwater. It is recommended to provide a shed and an impervious platform for phosphogypsum stacked at railway siding.	yard has already neutralized and decontaminated. PPL has provided a shed & an impervious
viii) Old Sulphur muck disposal area (north of Sulphur silo)- remedial measures as delineated need to be taken to decontaminate site.	

CREP guidelines for Fertilizer Industry

SI. No	Action Points	Compliance Status
1	Efforts will be made for conservation of water, particularly with a target to have consumption less than 8.12 and 15 m3 tonne of urea produced for plant based on gas, naphtha and fuel oil, respectively. In case of plants using Naptha and Gas both as feed stocks, water consumption target of less than 10m3/ tonne will be achieved. An action plan for this will be submitted by June 2003 and targets be achieved by March 2004.	Not Applicable to us, as we are not making urea.
2	Use of arsenic for CO2 absorption in ammonia plants and chromate based chemicals for cooling system, which is still continuing in some industries, will be phased out and replaced with non-arsenic and non-chromate systems by December 2003. In this regard, action plan will be submitted by June 2003	Not Applicable to us, as we have not ammonia plant.
3	Adequate treatment for removal of oil, chromium (till non- chromate based cooling system is in place) and fluoride will be provided to meet the prescribed standards at the source (end respective process unit) itself. Action plan will be firmed up by June 2003 for compliance by March 2004.	Effluent Treatment Plant (ETP) is installed to remove fluoride.
4	Proper and complete nitrification and de-nitrification will be ensured wherever such process used for effluent treatment, by September 2003,	Not Applicable
5	Ground water monitoring around the storage facilities and beyond the factory premises will be carried out at regular intervals particularly for pH. Fluoride CPCB will finalize the guidelines for groundwater monitoring by December 2003.	Monitoring is being carried out by NABL accredited third party on regular intervals as per CPCB guideline.
6	No effluent arising from process plants and associated facilities will be discharged to the storm water drain. The quality of storm water will be regularly monitored by all the industries.	Separate effluent & storm drains are provided to avoid mixing of effluent. The quality of storm water is being monitored.
7	The industries, where waste water/ effluent flows through the storm water drains even during the dry season will install continuous systems for monitoring the storm water quality for pH, ammonia and fluoride. If required, storm water will be routed through effluent treatment plant before discharging. An action plan will be submitted by June 2003 and necessary action will be taken by June 2004.	Zero discharge is maintained in storm drain during non- monsoon.

Air	Pollution Management	
1	All the upcoming urea plants will have urea prilling towers based on natural draft so at to minimize urea dust emissions.	Not Applicable for us, as we are not making urea.
2	The existing urea plants particularly, the plants having forced draft prilling towers will install appropriate systems (e.g. scrubber. etc.) for achieving existing norms of urea dust emissions. In this regard, industries will submit action plan by June 2003 and completion of necessary actions by June 2004.	Not Applicable for us, as we are not making urea.
3	The sulphuric acid plants having SCSA system will switch over to DCDA system by March 2004 to meet the emission standard for SO2 as 2kg/tonne of H2SO4 produced. An action plan for this will be submitted by June 2003.	Sulphuric acid plant in PPL is having DCDA system process. We are meeting the CPCB norms of SO2.
4	Sulphuric acid plants having DCDA system will improve the conversion and absorption efficiencies of the system as well as scrubbers to achieve SO2 emission of 2kg tonne of acid produced in case of plants having capacity above 300 tpd and 2.5 kg tonne in case of plants having capacity upto 300tpd. An action plan will be submitted by June 2003 and emission levels will be complied with by September 2004.	Already achieved SO2 emission of 1.5 & 1 kg per tonne of acid produced.
5	Stack height for sulphuric acid plants will be provided as per the guidelines and on the basis of normal plant operations (and not when the scrubbers are in use)by June 2003. The scrubbed gases are to be letout at the same height of the stock	Stack height for sulphuric acid plants is provided as per the CPCB guidelines.
6	An action plan for providing proper dust control systems rock phosphare grinding unit in phosphoric acid plants/ single super phosphate plants, so as to achieve particulate emission of 150 mg/Nm3 will be submitted by September 2003 and complied with by March 2004	We have wet & dry grinding system for rock phosphate grinding. Bag filters are provided at the transfer points to control the dust.
7	Particulate as well as gaseous fluoride will be monitored and adequate control systems will be installed by June 2004 to achieve the norms on total fluoride emissions (25 mg/Nm3).	Fluorine Recovery Unit (FRU) System is installed to recover fluorine and we have achieved the norm of total fluoride emissions within 20 mg/Nm3.
8	Continuous SO2 emission monitoring systems will be installed in sulphuric acid plants (having capacity 200 tpd and above) by March 2004. Action plan for this will be submitted by June 2003.	Continuous SO2 emission monitoring systems are installed in the sulphuric acid plants.
9	Regular monitoring of ambient air quality with regard to SO2 NOx, PM, SO3, fluoride and acid mist will be carried out.	Regular monitoring of ambient air quality is being done.

JUII	Solid Waste Management		
1	Gypsum will be effectively managed by providing proper lining, dykes with approach roads and monitoring of groundwater quality around storage facilities. Accumulated gypsum will be properly capped. In this regard, action plan will be submitted by June 2003 and for compliance by December 2003.	Gypsum stack management is being done as per the CPCB guideline.	
2	An action plan for proper handling, storage and disposal of spent catalyst having toxic metals will be submitted by June 2003 and implemented by September 2003. The industry will also explore recovery/buy-back of spent catalyst by September 2003.	Spent Catalyst is being disposed to authorized party M/s Re-sustainability, Sukinda, Odisha.	
3	Carbon slurry, sulphur muck and chalk will be properly managed and disposed of in properly designed landfill either within premises or in common facility. Action plan on this will be submitted by June 2003 and implemented by March 2004.	Sulphur muck is being reused as filler in DAP plant.	
4	Existing stock of chromium and arsenic bearing sludge will be properly disposed by December 2003. industries will also explore recovery of chromium from the sludge. CPCB will provide guidelines for proper disposal of the sludge	Not Applicable	