



Letter No: AAP/E&F/EC/2015/ 80

Date: 28/11/2015

To

The Director (S)
Eastern Regional Office
Ministry of Environment & Forests
A/3, Chandrashekharpur
Bhubaneswar - 750 023 (Odisha)

Sub: Submission of Six Monthly Compliance from April 2015 to Sept. 2015.
Ref: Environmental Clearance Letter No: J-11011/136/2009-IA.I (1), dated 29/11/2012.

Dear Sir,

As a part of the compliance to the Environmental Clearance accorded by MoEFCC to Aditya Aluminium for 0.72 MTPA Smelter and 1650 MW CPP at Lapanga in Sambalpur district, please find enclosed herewith the six monthly compliance reports of aluminium smelter and captive power plant for the period April 2015 to September 2015

Kindly acknowledge receipt of the reports.

Thanking You

Yours faithfully
For Aditya Aluminium

Bibhu Prasad Mishra
President & COO

Copy for kind information to:

1. The Member Secretary, SPCB, Bhubaneswar
2. The Scientist 'D' & In-charge, Zonal office of CPCB, Kolkata
3. The Regional Officer, SPCB, Sambalpur

ADITYA ALUMINIUM
(A Unit of Hindalco Industries Ltd.)

SMELTER & POWER

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STATUS OF IMPLEMENTATION OF CONDITIONS STIPULATED IN ENVIRONMENTAL CLEARANCE FOR 7,20,000 TPA ALUMINIUM SMELTER & 1650 MW CAPTIVE POWER PLANT FOR ADITYA ALUMINIUM BY M/S HINDALCO INDUSTRIES AT LAPANGA, SAMBALPUR, ORISSA.

REF: Environmental Clearance Letter No: J-11011/136/2009-IA.I (1), Dated 29TH November 2012 From MOEF, GOI.

Sr. No.	Specific Conditions	Compliance
i)	The streams passing through the project site shall not be disturbed w.r.t their quantity and quality of flow	The streams passing through the project site will not be disturbed.
ii)	Alumina shall be obtained from those refineries, which have been accorded environmental clearance by the Ministry of Environment and Forests.	The Alumina is obtained from Utkal Alumina International Limited (UAIL), Rayagada Distt. and it has been accorded environmental clearance from MoEF.
iii)	The gaseous emissions (PM, SO ₂ , NO _x , PAH, HC, VOCs and Fluoride) from various process units shall conform to the standards prescribed by the concerned authorities from time to time. The SPCB 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 emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency. The particulate emissions from the bake oven plant shall not exceed 50 mg/Nm ³ .	Online Monitoring equipments have been installed at the outlet of following stacks for monitoring of gaseous emissions etc. a) GTC - 2 Nos. b) FTC - 2 Nos. c) CPP - 4 Nos.
iv)	Particulate fluoride emissions should not be more than 0.65 mg/Nm ³ and fugitive particulate fluoride emissions from pot room should not be more than 1.85 mg/Nm ³ .	Online monitoring equipment at Gas Treatment Centre (GTC) and Fume Treatment Centre (FTC) installed for monitoring of Hydrogen Fluoride (HF), Particulate Matter (PM).
v)	The poly aromatic hydrocarbons (PAH) from the carbon plant (anode bake oven) should not exceed 2 mg/Nm ³ . The data on PAH should be monitored quarterly and report submitted regularly to the Ministry/Regional Office at Bhubaneswar and SPCB.	The poly aromatic hydrocarbons (PAH) from the carbon plant (anode bake oven) are being monitored on quarterly basis and found within the standard. The monitoring report is enclosed as <i>Annexure-1</i> .
vi)	In plant, control measures like fume extraction and dust extraction system for controlling fugitive emissions from all the materials handling/transfer points shall be provided to control dust emissions. Fugitive Fluoride emissions from the pot room	Fume Extraction Centre (FTC) in Anode Baking furnace, Gas Treatment Plant (GTC) in potlines and bag filters in raw material handling, GAP, Anode Baking, Roding areas, bath recycling, carbon recycling area, butts recycling area, cathode sealing shop etc in smelter area and coal handling, ash handling

	<p>and in the forage around the smelter complex and the data submitted regularly to the Ministry Regional Office at Bhubaneswar and SPCB.</p> <p>Further dry scrubbing system to control the emissions from the pot lines should be provided.</p>	<p>plant in captive power plant is installed to control fugitive dust emissions.</p> <p>HF analyzer for Fugitive fluoride monitoring in potroom has been procured, related structures inside the Potroom completed and is under installation. Forage around the smelter is being monitored on quarterly basis report enclosed as annexure-2.</p> <p>Dry scrubbing system in GTC is installed in smelter to control fugitive emission.</p>
vii)	<p>Electrostatic Precipitators (ESP) will be provided to Captive Power Plant (CPP) to control particulate emissions below 50 mg/Nm³.</p> <p>The company shall provide bag filters, dry scrubbing system and dust suppression system to control all the emissions including fluoride emissions from all melting and casting units. Tar, Dust and fluoride in the fumes shall be controlled in baking furnace by providing dry scrubber.</p> <p>The emissions shall conform to the standards prescribed by the Ministry CPCB/SPCB whichever is more stringent.</p>	<p>Electrostatic Precipitators (ESP) of 99.98% efficiency is installed in Captive Power Plant (CPP) to restrict particulate emissions below 50 mg/Nm³.</p> <p>Gas Treatment Centre (GTC) and bag filters are provided in all material handling & transfer points.</p> <p>Fume treatment plant (FTP) is installed in Anode Baking Furnace 1 & 2 to treat the tar, dust, gaseous and particulate fluorides.</p> <p>The standards prescribed by the Ministry / CPCB/ SPCB is being adhered.</p>
viii)	<p>Provision for installation of FGD shall be provided for future use.</p>	<p>Space has been kept for installation of FGD, in future if required.</p>
ix)	<p>Three tri-flue and one bi-flue stack of 275 m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipment's for SO₂, NO_x, and PM₁₀.</p>	<p>Two (02) numbers of tri-flue stacks of 275 m height is installed in phase-I.</p> <p>Continuous monitoring equipment is installed for monitoring of SO₂, NO_x, and PM at unit # 1, 2, 3 & 4 of CPP.</p>
x)	<p>Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.</p>	<p>Dust extraction systems (DE) and Dry fog system installed in coal handling plant and ash handling system of Captive Power Plant.</p>
xi)	<p>Utilization of 100% fly ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.</p>	<p>Presently, 100% of Ash generated is being utilized by means of supplying to M/s Ultratech Cements, Jharsuguda, M/s OCL, Bargarh for cement manufacturing and in Road construction of Sambalpur-Rourkela SH expansion works by L&T. Remaining ash is being utilized for filling the low lying areas inside the Plant with prior approval of SPCB and subsequently utilized for development of greenbelt.</p>

		Status of utilization of Ash from April 15 to Sept 2015 is enclosed as <i>Annexure-3</i> .
xii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized ash shall be disposed-off in the ash pond in the form of slurry. Mercury and other heavy metals (Ag, Hg, Cr, Pbetc) will be monitored in the bottom ash as also in the effluent emanating from the existing ash pond. No ash shall be disposed-off in low laying area.	Fly ash & bottom ash are being collected in dry form and silos of adequate capacity have been installed. The unutilized ash will be stored in ash disposal area through high concentration slurry disposal (HCSD) system. Monitoring of Mercury and other heavy metals (Ag, Hg, Cr, Pbetc) is being done for fly ash and bottom ash. Bottom ash analysis report is enclosed as <i>Annexure-4</i> .
xiii)	Fluoride (as F) consumption shall be less than 10 kg/ton of Aluminium produced as specified by the CREP.	Fluoride consumption is maintained within the standard.
xiv)	Anode butts generated from the pots shall be cleaned and recycled to the Anode Plant. The spent pot lining generated from the smelter shall be properly treated in spent pot lining treatment plant to remove fluoride and cyanide and disposed-off in secured landfill. The location and design of the land fill site shall be approved by the SPCB as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008. Leachate collection facilities shall be provided to the secured land fill facilities (SLF). The dross shall be recycled in the cast house. STP sludge shall be utilized as manure for greenbelt development. All the used oil and batteries shall be sold to the authorized recyclers/ re-processors.	Anode butts generated from the pots is being cleaned and recycled completely. After generation of the spent pot lining (SPL) from the smelter, it will be properly treated before disposal in the secured landfill/ supplied to CHWTSDF. However, efforts are being made for utilization of SPL in the cement kilns of different units of Ultratech Cements Ltd. The location and design of the land fill site has been prepared as per the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and approved from SPCB. Dross will be sold to the authorized recyclers/reprocessors and we are in the process of establishment dross recycling unit inside the plant. Application submitted to SPCB to issue the consent to establish and to CPCB for issue of permission under Rule-11 of the Hazardous Waste Management rule for utilization of Dross. STP is commissioned at township and sludge is being used for greenbelt development. The used oil is being sold to authorized recyclers and batteries kept for selling to the authorized recyclers/reprocessors.

xv)	As proposed, spent pot lining waste shall also be provided to cement and steel industries for further utilization.	No SPL is generated till date, However efforts are being made for utilization of SPL in the cement kilns of different units of Ultratech Cements Ltd.
xvi)	Ash pond shall be lined with HDP/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached. Ash pond water shall be recirculated and reused.	No ash is being disposed off in the designated ash pond at present. All precautionary measures are being taken so that no leachate from the ash pond takes place, and adequate safety measures are also being implemented.
xvii)	Cycle of concentration (CoC) of 5.0 shall be adopted.	Water Balance of CPP is being optimized gradually, so as to maintain a CoC of 5.
xviii)	Regular monitoring of ground water shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the regional office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	Regular monitoring of ground water is being done at baseline locations of EIA report enclosed as <i>Annexure-5</i> . Monitoring of heavy metals (Hg, Cr, As, Pb) around the Ash pond area will be carried out as soon as it is in operation and records will be maintained and compared with the baseline data.
xix)	Regular ground water monitoring shall be carried out by installing piezometers all around the secured land fill site in consultation with the SPCB, Central Ground Water Authority and State Ground Water Board and data submitted to the Ministry's Regional Office and SPCB.	Regular ground water monitoring will be carried out by installing piezometers all around the secured landfill site after establishment of the SLF in consultation with the SPCB, Central Ground Water Authority and State Ground Water Board and data will be submitted to the Ministry's Regional Office and SPCB after establishment of secured land fill site.
xx)	Total water requirement for the expansion from Hirakud Reservoir shall not exceed 5,200 m ³ /hr and prior permission for the existing and proposed expansion shall be obtained from the concerned department before commissioning of the plant. All the effluent including from the cooling tower and de-mineralization plant shall be treated in the effluent treatment plant and treated effluent shall be recycled/reutilized in the process in smelter and CPP and also for fire protection, dust suppression, greenbelt development etc.	No additional fresh water will be sourced from Hirakud Reservoir for the proposed expansion. The water requirement will not exceed 52.73 cusec as approved. The Effluent from the cooling towers and de-mineralization plant is being treated in Double Stage RO based effluent treatment plant and is being recycled/reutilized in the process of CPP and other areas.

	Domestic effluent shall be treated in sewage treatment plant (STP) and treated domestic waste water will be used for greenbelt development.	Separate Sewage Treatment Plant (STP) is installed @ capacity 25 m ³ /hr for Smelter & Captive Power Plant. The STP of 300 KLD capacity is installed at Township area and the treated water being used for greenbelt development.
xxi)	No effluent shall be discharged outside the premises of smelter during non-monsoon period and shall be discharged during the monsoon period only after treatment and meeting the norms of the OSPCB/CPCB.	We are operating a Double Stage RO based effluent treatment plant (ETP) of 300 m ³ /hr capacity (150m ³ /hr at present) and therefore will not discharge effluents outside without treatment.
xxii)	Greenbelt of adequate width and density around the project site shall be developed in 33% area in consultation with the DFO as per the CPCB guidelines having density of 2,000 trees/Ha.	Aditya Aluminium has already started development of Greenbelt inside the Core plant & Township areas. Around 1,27,000 saplings planted and a Central Nursery has been established inside the project area having a capacity to raise 1 lakhs saplings.
xxiii)	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational Health Surveillance of the workers is being done as per the Odisha Factories Act.
xxiv)	The company shall develop rain water structures in the township area for recharge of ground water in consultation with the Central Ground Water Authority/Board.	Rain water harvesting structure is made in buildings inside township area and a storage space is planned in township area for rain water recharge.
xxv)	Rehabilitation and Resettlement Action Plan as prepared and submitted to the State Govt. shall be implemented as per the R & R Policy of the State Government. All the recommendations mentioned in the R&R Plan shall be strictly followed including suitable employment and other facilities to all the oustees.	Rehabilitation and Resettlement Action Plan is being implemented as per the R & R policy, 2006 of the State Govt. All the recommendations are being followed/complied.
xxvi)	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Aluminium Sector shall be strictly implemented.	All the conditions of CREP guideline for Aluminium sector is being followed.
xxvii)	The company shall adopt well laid down corporate policy and identified and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with environmental clearance, environmental laws and regulations.	The company has adopted a well laid down corporate policy. The Corporate Environment Policy is approved by the Board of Directors and already submitted to MoEF, copy of the approved environment policy is enclosed as Annexure-6.
xxviii)	All the commitments made to the public during public hearing /public consultation meeting held on 2 nd march 2012 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	All the commitments made to the public during public hearing/public consultation meeting held on 2 nd march 2012 is under gradual implementation. Budget is not a constraint for implementation of the commitments.

xxix)	At least 5% of the total cost of the project shall be earmarked for towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	As the expansion will be carried out in two phases i.e. Aluminium Smelter from 0.26 MTPA to 0.36 MTPA & Captive Power Plant from 650 MW to 900 MW in phase I and later upgradation will be made for smelter to 0.72 MTPA and Captive Power Plant to 1650 MW in phase II. The details of the CSR activities undertaken upto September 2015 are attached as Annexure- 7.
xxx)	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to be ensured accordingly in a time bound manner.	All necessary infrastructure and facilities are being provided to the workers from time to time.
xxxi)	The company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) standard operating process/procedure to being into focus any infringement/deviation/violation of environmental or forests norms/ conditions (ii) Hierarchical system or administrative order of the company to deal with environmental issues and ensuring compliance to the environmental clearance and (iii) system of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	The Corporate Environment Policy prepared and approved by the company Board of Directors, Organizational Structure for Hindalco Corporate Environment, Deployment of Corporate Policy in manufacturing Plants & communication of Policy as regards Corporate Environment and already submitted to MoEF.
GENERAL CONDITIONS		
i)	The project authorities must strictly adhere to the stipulations made by the OSPCB and the State Government.	We will follow the stipulations made by OSPCB and the State Government.
ii)	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	We will not carry out any expansion or modification in the plant without prior approval of MoEF.
iii)	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19 th May, 1993 and standards prescribed from time to time. The SPCB may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	We have noted and accepted the stipulated condition.

iv)	At least four number of ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and Orissa State Pollution Control Board once in Six months.	Installation of four (04) CAAQMS completed and commissioned. All the stack emission and ambient air monitoring stations synchronized with the webserver of the SPCB with URL http://117.239.117.27/ospcbtrtdas/&CPCB with URL http://113.19.81.38/cpcbtrtdas/ respectively. The six-monthly compliance is being submitted to the concerned authorities regularly.
v)	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (nighttime).	The overall noise levels in and around the plant area is within the prescribed standards and it is made possible by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The overall noise level is within the standard, regular monitoring is being done. All necessary PPEs are provided to the workers and engineers working in the factory.
vi)	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational Health Surveillance of the workers is being done as per the Factories Act.
vii)	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	The company has developed surface water harvesting structures to store water in the lean season and it will harvest the rain water during rainy season in the same reservoirs.
viii)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA report. Further the company must undertake socio-economic development activities in the surrounding villages like community development programmes, drinking water supply and health care etc.	We have noted and accepted all the conditions and will comply in a time bound manner. The economic development activities are going on regularly as a part of our corporate social responsibility. Details of the CSR, R&R activities undertaken is attached as Annexure-3 A team of personnel are working dedicatedly for peripheral development work like conducting health camps, community developed programmes, formation SHG groups, supply of drinking water and other common infrastructural development works.

ix)	Requisite fund shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment & Forests as well the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	Requisite fund has been allotted towards capital cost and recurring cost/annum for environment pollution control measures and the fund will not be diverted for any other expenditure.
x)	A copy of the clearance letter shall be send by the proponent to concerned Panchayat, Zillaparishad/Municipality corporation, urban local boby and the local NGO, if any from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter also be put on the web site of the company by the proponent.	Copy of the clearance letter has already been communicated to all concerned as mentioned in the condition. Scanned copy of the letter is also displayed in our official website.
xi)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF at Bhubaneswar. The respective zonal office of CPCB and SPCB. The criteria pollutant levels namely' PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	<p>The status of compliance is being submitted to the Regional office of the MOEF regularly on 1stJune and 1stDec respectively.</p> <p>The monitoring is being done for ambient air quality, Ambient Noise, Water, Soil and Meteorological etc at all the baseline locations after operation of the plant.</p> <p>Installation of continuous stack emission monitoring equipment's completed and commissioned. Four (04) CAAQMS installed and commissioned.</p> <p>All the stack emission and ambient air monitoring stations synchronized with the webserver of the SPCB & CPCB.</p>
xii)	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitoring data (both in hard & soft copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Offices of CPCB and the SPCB. The Regional office of this Ministry at Bhubaneswar. CPCB/SPCB shall monitor the stipulated conditions.	<p>We are submitting the six monthly compliance reports of the stipulated environmental conditions (both in hard & soft copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Offices of CPCB and the SPCB.</p> <p>The monitoring data in respect of AAQ, water, soil, noise, meteorological etc is enclosed as <i>Annexure-8</i></p>
xiii)	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution	The environmental statement for each financial year ending 31 st March in Form-V is being submitted to the concerned authorities of SPCB and MoEF.

	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 conditions and shall also be sent to the respective Regional Office at Bhubaneswar.	
xiv)	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 SPCB and may also be seen at website of the Ministry of Environment & Forest at http://www.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 should be forwarded to the Regional office at Bhubaneswar.	Information to Public has been made through advertisement of the environmental clearance in two widely circulated daily newspapers i.e. "The New Indian Express" on 04-12-2012 & "The Samaja" on 05-12-2012, within seven days of receiving the clearance letter. The copy of the advertisement was submitted to the Ministry's Regional Office at Bhubaneswar vide our office letter no. AAP/E&F/786, dated 07-12-2012.
xv)	The 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 commencing the land development work.	Financial closure for Phase-1 (Smelter capacity of 0.36 MTPA and CPP of 1650 MW) of the Project is completed on 17th September 2012 and operation of Phase-1 is under progress. Four Units (4 x 150 MW) of CPP and 269, out of 360 Pots are in operation.

Encl: As above



(Authorized Signatory)



Ref: VCSPL/IE/R-699

Date: 07.11.2015

STATIONARY EMISSION MONITORING REPORT

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Date of Sampling : 12.10.2015
3. Sampling Location : ST-1: Stack attached to ABF I -FTC I
4. Name of sampling Instrument : Vayubodhan Stack Sampler VSS 2
5. Sample Collected by : VCSPL in presence of Aditya Aluminium representative
6. Date of Analysis : 15.10.2015 to 16.10.2015

Parameters	Unit of Measurement	Methodology	Analysis Results
			ST-1
Stack Temperature	$^{\circ}\text{C}$	Stack Sampler	82.0
Velocity of Flue Gas	m/sec	Stack Sampler	9.11
Concentration of Particulate Matter as PM	mg/Nm ³	Gravimetric	5.0
Sulphur dioxide as SO ₂	mg/Nm ³	IPA- Thorin method	46.0
Oxides of Nitrogen as NO _x	mg/Nm ³	Modified Jacob & Hochheiser (Na-Arsenite)	27.0
Particulate Fluoride	mg/Nm ³	Ion Electrode method	0.16
Gaseous Fluoride	mg/Nm ³	Ion Electrode method	0.5
Total Fluoride as F	mg/Nm ³	Calculation	0.66
Tar Fumes	mg/Nm ³	Extraction followed by Gas Chromatography	ND
Poly Aromatic Hydrocarbon as PAHs	$\mu\text{g}/\text{Nm}^3$	Gas Chromatography	ND

Note: ND: Not Detected.



For Visiontek Consultancy Services Pvt. Ltd.



Ref: VCSPL/15/R-700

Date: 07.11.2015

STATIONARY EMISSION MONITORING REPORT

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Date of Sampling : 13.10.2015
3. Sampling Location : ST-2; Stack attached to ABF II -FFC 2
4. Name of sampling Instrument : Vayubodhan Stack Sampler VSS 2
5. Sample Collected by : VCSPL in presence of Aditya Aluminium representative
6. Date of Analysis : 15.10.2015 to 16.10.2015

Parameters	Unit of Measurement	Methodology	Analysis Results
			ST-2
Stack Temperature	$^{\circ}\text{C}$	Stack Sampler	101.0
Velocity of Flue Gas	m/sec	Stack Sampler	7.89
Concentration of Particulate Matter as PM	mg/Nm^3	Gravimetric	37.2
Sulphur dioxide as SO_2	mg/Nm^3	IPA- Thorin method	43.0
Oxides of Nitrogen as NO_x	mg/Nm^3	Modified Jacob & Hochheiser (Na-Arsenite)	41.0
Particulate Fluoride	mg/Nm^3	Ion Electrode method	0.18
Gaseous Fluoride	mg/Nm^3	Ion Electrode method	0.44
Total Fluoride as F	mg/Nm^3	Calculation	0.52
Tar Fumes	mg/Nm^3	Extraction followed by Gas Chromatography	ND
Poly Aromatic Hydrocarbon as PAHs	$\mu\text{g}/\text{Nm}^3$	Gas Chromatography	ND

Note: ND: Not Detected.



For Visiontek Consultancy Services Pvt. Ltd.

Ref: VESPI/IR-252

Date: 10.04.2015

FORAGE FLUORIDE ANALYSIS REPORT

1. Name of Industry : M/s Hindalco Industries Limited
 2. Nature of Sample : Leaf for Fluoride
 3. Date of Analysis : 04.04.2015 to 07.04.2015
- (Unit- Aditya Aluminium), Lapanga

Sl. No.	Date of Sampling	Name of the Location	Type of Species	Fluoride ppm
1	02.04.2015	FF-1:Gumkarma	Grass	1.4
2	02.04.2015	FF-2:Ghichamura	Grass	1.7
3	02.04.2015	FF-3:Bamalo	Dalbergiasisoo	5.2
4	03.04.2015	FF-4:Tilamal	Azadirachta indica	6.7
5	03.04.2015	FF-5:Lapanga	Albizia procera	6.4
6	03.04.2015	FF-6:Gurupali	Grass	1.0

B. K. Mishra
B. K. Mishra, B.Sc. Engg. (Chem)
 GOVT. ANALYST
 (GAZETTE No. 83 of 12-04-2013)

For Visiontek Consultancy Services Pvt. Ltd.



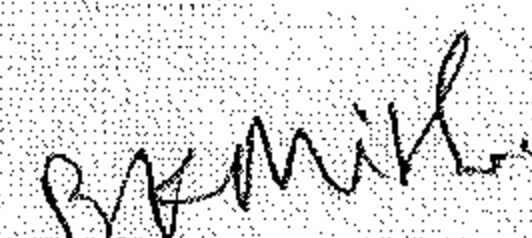
Ref: VCSP/L/15/R-557

Date: 08.08.2015

FORAGE FLUORIDE ANALYSIS REPORT

1. Name of Industry : M/s Hindalco Industries Limited
(Unit- Aditya Aluminium), Lapanga
2. Nature of Sample : Leaf for Fluoride
3. Date of Analysis : 04.07.2015 to 07.07.2015

Sl. No.	Date of Sampling	Name of the Location	Type of Species	Fluoride
				ppm
1	02.07.2015	FF-1:Gumkarma	Grass	1.1
2	02.07.2015	FF-2:Ghichamura	Grass	1.6
3	02.07.2015	FF-3:Bamaloi	Dalbergiasisoo	4.2
4	03.07.2015	FF-4:Tilaimal	Azadirachtaindica	3.2
5	03.07.2015	FF-5:Lapanga	Albiziaprocera	4.2
6	03.07.2015	FF-6:Gurupali	Grass	1.0


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(GAZETTE No. 834 Dt. 12-04-2013)

For Visiontek Consultancy Services Pvt. Ltd.

Annexure - 3

ANNEXURE-1

NAME OF THE INDUSTRY:- Aditya Aluminium

STATUS OF UTILIZATION OF COAL ASH (FLY ASH AND BOTTOM ASH) For the Month of:- April 2015 - Sept 2015

Sl.No.	Month	Year	Coal Consumption (Million Tonnes)	Power Installed Capacity	Power Generated MW	Quantity of Fly Ash generated (MT)	Quantity of Bottom Ash generated (MT)	Total Ash Generated	Disposal Method	Brick manufacturing (MT)	Supplied to cement industries (M/s Ultratech & M/s OCL)	Mine Void Filling(MT)	Utilization in Embankment/Dyke Raising(MT)	Road Making	Land development	Low Using area filling	Aggregates	Agriculture/Horticulture Sector	Total Ash Utilized (MT)	% of utilization
1	April	2015	146028.90	300	500	56952.51	6328.06	63280.57	Dry disposal	0	41180.24	0	0	0	0	22100.33	0	0	63280.57	100.00
2	May	2015	171961.12	450	350	72809.91	3821.57	76431.48	Dry disposal	0	31238.64	0	0	3500	0	41694.84	0	0	76431.48	100.00
3	June	2015	195393	600	375	85985.42	3582.73	89568.15	Dry disposal	0	23592.64	0	0	2460	0	63515.51	0	0	89568.15	100.00
4	July	2015	212769.12	600	362	98413.00	4100.54	102513.54	Dry disposal	0	23935	0	0	2616	0	73862.54	0	0	102513.54	100.00
5	Aug	2015	206606	600	348	85040.04	3543.34	88583.38	Dry disposal	0	28912.21	0	0	0	0	58671.16	0	0	88583.37	100.00
6	Sept	2015	210140	600	395	81871.03	3411.39	85282.42	Dry disposal	0	59612.45	0	0	2533.39	0	23136.48	0	0	85282.32	100.00



Annexure-4

Ref: VCSPL/15/R-558

FLY ASH ANALYSIS REPORT

Date: 06.08.2015

1. Name of Industry : M/s Hindalco Industries Limited
(Unit- Aditya Aluminium), Lapanga.
2. Sampling Location : FA-01: CPP Fly Ash Silo
3. Date of Sampling : 04.07.2015
4. Date of Analysis : 06.07.2015 to 13.07.2015
5. Sample Collected By : VCSPL Representative in presence of Aditya Aluminium Representative.

Sl. No.	Parameters	Unit	Analysis Results
			FA-01
A. Chemical Analysis			
1	Na ₂ O	%	0.14
2	MgO	%	0.82
3	Al ₂ O ₃	%	21.6
4	SiO ₂	%	53.4
5	P ₂ O ₅	%	0.015
6	SO ₃	%	1.1
7	K ₂ O	%	0.7
8	CaO	%	3.32
9	TiO ₂	%	--
10	MnO	%	0.12
11	Fe ₂ O ₃	%	6.9
B. Heavy Metals Analysis			
1	Hg	%	<0.001
2	As	%	<0.001
3	Pb	%	0.012
4	Cr	%	<0.002
5	V	%	<0.001
6	Fe	%	4.8
7	Co	%	<0.001
8	Cu	%	0.026
9	Ni	%	0.07
10	Zn	%	0.032
11	Sr	%	--
12	Ba	%	<0.001

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Ref: VCSPL/IE/R-559

Date: 05.08.2015

BOTTOM ASH ANALYSIS REPORT

1. Name of Industry : M/s Hindalco Industries Limited
(Unit- Aditya Aluminium), Lapanga.
2. Sampling Location : BA-01: CPP Bottom Ash Silo
3. Date of Sampling : 04.07.2015
4. Date of Analysis : 06.07.2015 to 13.07.2015
5. Sample Collected By : VCSPL Representative in presence of Aditya Aluminium Representative.

Sl. No.	Parameters	Unit	Analysis Results
			BA-01
A. Chemical Analysis			
1	Na ₂ O	%	0.14
2	MgO	%	1.1
3	Al ₂ O ₃	%	21.8
4	SiO ₂	%	57.2
5	P ₂ O ₅	%	0.016
6	SO ₃	%	1.14
7	K ₂ O	%	0.8
8	CaO	%	3.9
9	TiO ₂	%	--
10	MnO	%	0.15
11	Fe ₂ O ₃	%	7.64
B. Heavy Metals Analysis			
1	Hg	%	<0.001
2	As	%	<0.001
3	Pb	%	0.028
4	Cr	%	<0.002
5	V	%	<0.001
6	Fe	%	5.4
7	Co	%	<0.001
8	Cu	%	0.04
9	Ni	%	0.076
10	Zn	%	0.056
11	Sr	%	--
12	Ba	%	<0.001

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Annexure-5

Ref: VCSPL/IF/R-CE3

GROUND WATER QUALITY ANALYSIS REPORT

Date: 05.08.2015

- | | |
|------------------------|--|
| 1. Name of Industry | M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga. |
| 2. Sampling location | GW-1: Lapanga Village; GW-2: Panduloi Village; GW-3: Bomaloi Village; GW-4: Titajmal Village; GW-5: Thekoloi Village; GW-6: Ghichamura Village; GW-7: Gumkarama Village; GW-8: Chalukra Village. |
| 3. Date of sampling | 02.06.2015 |
| 4. Date of analysis | 06.06.2015 to 13.06.2015 |
| 5. Sample collected by | VCSPL Representative in presence of Aditya Aluminium Representative. |

Sl. No.	Parameter	Testing Methods	Unit	Standard as per IS-10500:1991	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8
1	pH Value	APHA 4500H B	--	6.5-8.5	6.98	6.9	6.77	6.82	6.81	6.9	6.9	6.94
2	Colour	APHA 2120 B, C	Hazen	5	CL	CL	CL	CL	CL	CL	CL	CL
3	Taste	APHA 2160 C	--	Agreeable	AL	AL	AL	AL	AL	AL	AL	AL
4	Odour	APHA 2150 B	--	U/O	U/O	U/O	U/O	U/O	U/O	U/O	U/O	U/O
5	Conductivity	APHA 2510-B	µs/cm	--	161.4	127.5	136.0	140.2	168.4	139.8	174.6	171.2
6	Turbidity	APHA 2130 B	NTU	5	0.5	0.7	0.4	0.6	0.4	0.7	1.0	0.6
7	Total Dissolved Solids	APHA 2540 C	mg/l	500	210.0	172.0	180.0	198.0	202.0	176.0	210.0	182.0
8	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	300	72.0	58.0	54.0	52.0	72.0	48.0	64.0	58.0
9	Total Alkalinity	APHA 2320 B	mg/l	200	64.0	62.0	56.0	52.0	48.0	44.0	48.0	62.0
10	Calcium (as Ca)	APHA 3500Ca B	mg/l	75	16.83	14.43	13.63	12.02	17.64	11.22	14.43	15.23
11	Magnesium (as Mg)	APHA 3500Mg B	mg/l	30	7.3	5.3	4.9	5.3	6.8	4.9	6.8	4.9
12	Residual, free Chlorine	APHA 4500Cl, B	mg/l	0.2	ND	ND	ND	ND	ND	ND	ND	ND
13	Boron (as B)	APHA 4500B, B	mg/l	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
14	Chloride (as Cl)	APHA 4500Cl, B	mg/l	250	18.0	11.0	16.0	18.0	16.0	14.0	20.0	16.0
15	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	200	8.8	5.87	6.88	7.48	8.12	6.44	8.1	7.23
16	Fluoride (as F)	APHA 4500F, C	mg/l	1.0	0.068	0.052	0.044	0.062	0.07	0.046	0.047	0.061
17	Nitrate (as NO ₃)	APHA 4500 NO ₃ ⁻ E	mg/l	45	2.54	1.82	2.01	2.12	2.19	2.0	2.11	2.1
18	Sodium as Na	APHA 3500-Na	mg/l	--	13.8	11.7	10.9	13.2	13.7	13.2	14.6	13.1
19	Potassium as K	APHA 3500-K	mg/l	--	1.2	0.9	0.81	0.95	1.2	0.98	1.1	1.0
20	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
21	Cyanide (as CN)	APHA 4500 CN ⁻ C,D	mg/l	0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
22	Anionic Detergents (as MBAS)	APHA 5540 C	mg/l	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
23	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
24	Arsenic (as As)	APHA 3114 B	mg/l	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
25	Copper (as Cu)	APHA 3111 B,C	mg/l	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
26	Lead (as Pb)	APHA 3111 B,C	mg/l	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
27	Manganese (as Mn)	APHA 3500Mn B	mg/l	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
28	Iron (as Fe)	APHA 3500Fe, B	mg/l	0.3	0.26	0.27	0.25	0.28	0.34	0.32	0.28	0.26
29	Chromium (as Cr ⁶⁺)	APHA 3500Cr B	mg/l	0.05	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
30	Selenium (as Se)	APHA 3114 B	mg/l	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc (as Zn)	APHA 3111 B,C	mg/l	5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
32	Aluminium (as Al)	APHA 3500Al B	mg/l	0.03	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
33	Mercury (as Hg)	APHA 3500 Hg	mg/l	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
34	Mineral Oil	APHA 5220 B	mg/l	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
35	Pesticides	APHA 6630 B,C	mg/l	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
36	E.Coli	APHA 9221-F	MPN/100 ml	Shall not be detectable in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent
37	Total Coliforms	APHA 9221-B	MPN/100 ml	Shall not be detectable in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent

Note: CL: Colourless, AL: Agreeable, U/O: Unobjectionable, ND: Not Detected.

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ENVIRONMENT POLICY

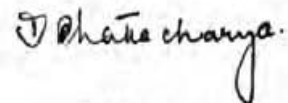
We, at Hindalco Industries Limited, operating across the process chain from mining to semi-fabricated products in non-ferrous metals, strive to continually improve the environmental performance for sustainable operations and responsible growth globally, by integrating sound environmental system and practices.

To achieve this, we shall

- Comply with all applicable legal requirements on environment.
- Continually improve environmental performance by strengthening the Environmental Management System conforming to National / International Standards, including setting and reviewing targets and measuring, monitoring and reporting their progress.
- Allocate sufficient resources such as organizational structure, technology and funds for implementation of the policy and regular monitoring of its performance.
- Adopt pollution prevention approach in all our processes, enhance material efficiency and achieve high productivity.
- Conserve key resources like electricity, coal, water, oil and raw materials by promoting efficient technologies and manufacturing process improvements, water conservation program and efficient use of raw materials.
- Adopt energy efficient and cleaner technologies based on techno-economic viability, appropriate to the region in which we operate and in line with our growth and diversification plans.
- Promote principles of waste prevention, reduction, reuse, recycling and recovery to minimize waste generation and strengthen practices for management of wastes.
- Work in partnership with regulatory authorities, relevant suppliers, contractors and all stakeholders, as applicable, to meet the requirements of this Policy.
- Adapt environmental performance over life cycle as an important input in the decision process of the organization.
- Raise environmental awareness at all levels of our operations through training and effective communication, participation and consultation.
- Develop and follow appropriate communication system to inform stakeholders, as applicable, about our environmental commitment and performance.

This policy shall be made available to all employees, suppliers, customers, community and other stakeholders, as appropriate.

11th December 2014



D. Bhattacharya
Managing Director



Ref.VCSPL/LET/R-330

Date: 02.07.2015

AMBIENT AIR QUALITY MONITORING REPORT

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No.- AAQ 1 (Near ETP Plant)
3. Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
05.06.2015	91.4	50.0	22.4	20.1	8.8	0.42	46.1	<0.001	<0.002	<0.01	<0.001	<0.001	0.8
08.06.2015	87.6	46.2	21.8	18.9	9.8	0.40	42.0	<0.001	<0.002	<0.01	<0.001	<0.001	0.4
11.06.2015	97.4	54.5	22.8	19.6	10.3	0.41	44.7	<0.001	<0.002	<0.01	<0.001	<0.001	0.7
15.06.2015	92.1	52.8	23.1	19.2	9.7	0.35	50.1	<0.001	<0.002	<0.01	<0.001	<0.001	0.8
18.06.2015	70.4	34.8	19.6	17.5	6.1	0.30	48.5	<0.001	<0.002	<0.01	<0.001	<0.001	0.4
22.06.2015	40.2	19.8	17.5	16.1	4.5	0.24	46.1	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
25.06.2015	92.6	51.2	24.9	29.6	12.3	0.45	57.0	<0.001	<0.002	<0.01	<0.001	<0.001	1.4
29.06.2015	94.8	52.0	25.6	32.2	12.7	0.48	62.4	<0.001	<0.002	<0.01	<0.001	<0.001	1.3
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	-
Average	83.31	45.16	22.21	21.65	9.28	0.38	49.61	<0.001	<0.002	<0.01	<0.001	<0.001	<0.73
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

BDL Values: SO₂< 4 µg/m³, NO_x< 9 µg/m³, O₃<4 µg/m³, Ni<0.001 ng/m³, As < 0.001 ng/m³, C₆H₆<0.001 µg/m³, BaP<0.002 ng/m³, Pb<0.001 µg/m³, F<0.01 µg/m³ CO<0.1 mg/m³

B.K. Mishra

B. K. Mishra, B.Sc. Engg. (Chem)

GOVT ANALYST
For Visiontek Consultancy Services Pvt Ltd.
(GAZETTE NO. 854 Dt. 12.04.2013)



Ref: VCSPL/IS/R-231

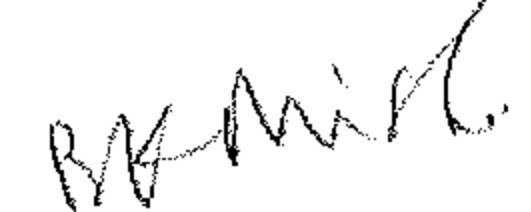
Date: 08.07.2015

AMBIENT AIR QUALITY MONITORING REPORT

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No.- AAQ 2 (Near First Aid Centre)
3. Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
05.06.2015	90.1	57.6	23.7	31.2	10.6	0.46	54.2	<0.001	<0.002	<0.01	<0.001	<0.001	1.8
08.06.2015	88.1	55.8	23.4	31.7	11.4	0.43	55.6	<0.001	<0.002	<0.01	<0.001	<0.001	1.7
11.06.2015	92.1	51.7	24.6	32.2	12.4	0.46	52.9	<0.001	<0.002	<0.01	<0.001	<0.001	2.1
15.06.2015	95.6	53.4	24.3	32.6	12.7	0.44	62.4	<0.001	<0.002	<0.01	<0.001	<0.001	2.2
18.06.2015	95.3	49.6	20.3	24.6	7.8	0.34	58.3	<0.001	<0.002	<0.01	<0.001	<0.001	1.0
22.06.2015	55.8	27.1	18.4	23.4	5.1	0.28	50.1	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
25.06.2015	88.5	56.4	23.1	30.5	10.5	0.45	55.6	<0.001	<0.002	<0.01	<0.001	<0.001	1.7
29.06.2015	91.0	49.6	23.7	31.7	11.7	0.46	58.3	<0.001	<0.002	<0.01	<0.001	<0.001	1.5
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	--
Average	87.06	50.15	22.69	29.74	10.28	0.42	55.93	<0.001	<0.002	<0.01	<0.001	<0.001	<1.5
Testing method	Gravimetric	Gravimetric	Improved West and Gacke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

BDL Values: SO₂<4 µg/m³, NO_x<9 µg/m³, O₃<4 µg/m³, Ni<0.001 ng/m³, As <0.001 ng/m³, C₆H₆<0.001 µg/m³, BaP<0.002 ng/m³, Pb<0.001 µg/m³, F<0.01 µg/m³, CO<0.1 mg/m³


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GOVT. ANALYST
 For Visiontek No. 824/Dt. 12-04-2013
 (GAZETTE No. 824/Dt. 12-04-2013)
 Visiontek Consultancy Services Pvt. Ltd.



AMBIENT AIR QUALITY MONITORING REPORT FOR JULY-2015

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No.- AAQ 1 (Near ETP Plant)
3. Monitoring Instruments : RIDS (APM 460 BL), FPS (APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
02.07.2015	78.5	39.8	20.6	22.4	9.5	0.42	51.6	<0.001	<0.002	<0.01	<0.001	<0.001	1.8
06.07.2015	39.2	18.1	12.8	12.7	5.2	0.32	44.4	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
09.07.2015	42.8	20.8	14.2	15.6	5.8	0.34	49.6	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
13.07.2015	55.6	27.6	15.1	17.4	7.5	0.36	47.5	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
16.07.2015	51.2	25.3	14.6	14.8	6.4	0.38	48.5	<0.001	<0.002	<0.01	<0.001	<0.001	2.8
20.07.2015	53.4	26.6	13.9	14.5	6.4	0.35	51.6	<0.001	<0.002	<0.01	<0.001	<0.001	8.4
23.07.2015	43.2	21.2	13.6	15.3	6.8	0.33	44.4	<0.001	<0.002	<0.01	<0.001	<0.001	4.8
27.07.2015	67.5	33.5	16.2	19.2	6.8	0.36	51.6	<0.001	<0.002	<0.01	<0.001	<0.001	2.3
30.07.2015	54.6	26.4	14.8	17.5	5.1	0.32	48.5	<0.001	<0.002	<0.01	<0.001	<0.001	2.1
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	--
Average	54.0	26.59	15.09	16.6	6.61	0.35	48.63	<0.001	<0.002	<0.01	<0.001	<0.001	<2.47
Testing method	Gravimetric	Gravimetric	Improved West and Gacke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

SO₂ < 4 µg/m³, NO_x < 9 µg/m³, O₃ < 4 µg/m³, Ni < 0.001 ng/m³, As < 0.001 ng/m³, C₆H₆ < 0.001 µg/m³, BaP < 0.002 ng/m³, Pb < 0.001 µg/m³, F < 0.01 µg/m³, CO < 0.1 mg/m³

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For Visiontek Consultancy Services Pvt. Ltd.



Ref.: VCSPL/15/R-376

Date: 03.08.2015

AMBIENT AIR QUALITY MONITORING REPORT FOR JULY-2015

1. Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No.- AAQ 2 (Near First Aid Centre)
3. Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
02.07.2015	70.1	34.8	21.2	23.6	9.8	0.40	54.7	<0.001	<0.002	<0.01	<0.001	<0.001	2.6
06.07.2015	34.1	16.6	13.5	14.2	5.6	0.30	45.4	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
09.07.2015	36.4	17.3	15.5	16.7	6.3	0.28	51.6	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
13.07.2015	45.1	23.2	16.4	16.2	7.2	0.32	53.7	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
16.07.2015	87.5	47.8	17.9	18.1	8.2	0.42	54.7	<0.001	<0.002	<0.01	<0.001	<0.001	26.5
20.07.2015	67.1	34.7	17.6	16.7	7.8	0.36	57.8	<0.001	<0.002	<0.01	<0.001	<0.001	35.6
23.07.2015	48.2	23.5	14.8	14.7	7.2	0.35	49.6	<0.001	<0.002	<0.01	<0.001	<0.001	17.5
27.07.2015	52.8	26.1	15.4	18.4	6.4	0.36	54.7	<0.001	<0.002	<0.01	<0.001	<0.001	12.2
30.07.2015	49.8	24.2	15.6	18.8	6.1	0.3	53.7	<0.001	<0.002	<0.01	<0.001	<0.001	4.2
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	--
Average	54.57	27.58	16.43	17.49	7.18	0.34	52.88	<0.001	<0.002	<0.01	<0.001	<0.001	<10.96
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hoelheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

SO₂ < 4 µg/m³, NO_x < 9 µg/m³, O₃ < 4 µg/m³, Ni < 0.001 ng/m³, As < 0.001 ng/m³, C₆H₆ < 0.001 µg/m³, BaP < 0.002 ng/m³, Pb < 0.001 µg/m³, F < 0.01 µg/m³, CO < 0.1 mg/m³

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For Visiontek Consultancy Services Pvt. Ltd.



Ref: VCSPL/15/R-48

Date: 07.09.2015

AMBIENT AIR QUALITY MONITORING REPORT FOR AUGUST-2015

1. Name of Industry : M/s Hindaleo Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No.- AAQ 1 (Near ETP Plant)
3. Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
03.08.2015	57.5	28.2	15.2	18.1	7.8	0.34	54.9	<0.001	<0.002	<0.01	<0.001	<0.001	1.5
06.08.2015	64.2	33.1	16.8	21.5	10.5	0.42	64.0	<0.001	<0.002	<0.01	<0.001	<0.001	1.8
10.08.2015	68.5	35.2	17.7	23.6	11.2	0.45	67.5	<0.001	<0.002	<0.01	<0.001	<0.001	2.2
13.08.2015	75.2	38.4	18.2	24.1	11.5	0.48	68.6	<0.001	<0.002	<0.01	<0.001	<0.001	2.1
17.08.2015	58.5	28.6	17.2	23.5	11.1	0.41	66.3	<0.001	<0.002	<0.01	<0.001	<0.001	1.2
20.08.2015	68.4	35.1	16.5	22.4	10.6	0.38	61.7	<0.001	<0.002	<0.01	<0.001	<0.001	1.5
24.08.2015	78.5	40.1	17.6	23.8	11.5	0.42	70.9	<0.001	<0.002	<0.01	<0.001	<0.001	1.6
28.08.2015	84.2	43.2	18.1	24.6	11.8	0.44	65.2	<0.001	<0.002	<0.01	<0.001	<0.001	1.7
31.08.2015	42.5	20.6	12.6	13.4	<4.0	0.24	69.7	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	-
Average	66.39	33.61	16.66	21.67	<10.0	0.40	65.42	<0.001	<0.002	<0.01	<0.001	<0.001	<1.51
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

BDL Values: SO₂<4 µg/m³, NO_x<9 µg/m³, O₃<4 µg/m³, Ni<0.001 ng/m³, As<0.001 ng/m³, C₆H₆<0.001 µg/m³, BaP<0.002 ng/m³, Pb<0.001 µg/m³, F<0.01 µg/m³, CO<0.1 mg/m³

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Visiontek Consultancy Services Pvt.Ltd.

(An Enviro Engineering Consulting Cell)



ISO 14001:2004
ISO 9001:2008
OHSAS 18001:2007

Ref:VCSPL/15/R-486

Date: 07-09-2015

AMBIENT AIR QUALITY MONITORING REPORT FOR AUGUST-2015

- Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
- Sampling Location : Monitoring Station No.- AAQ 2 (Near First Aid Centre)
- Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
- Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

Date	PARAMETERS												
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
03.08.2015	51.5	27.2	16.1	19.2	8.2	0.32	58.3	<0.001	<0.002	<0.01	<0.001	<0.001	4.6
06.08.2015	55.6	29.6	16.5	21.2	9.4	0.34	61.7	<0.001	<0.002	<0.01	<0.001	<0.001	4.5
10.08.2015	58.4	40.8	16.6	21.9	9.8	0.36	66.3	<0.001	<0.002	<0.01	<0.001	<0.001	4.8
13.08.2015	66.5	49.2	16.8	21.8	9.7	0.38	61.7	<0.001	<0.002	<0.01	<0.001	<0.001	5.2
17.08.2015	42.4	32.6	15.2	20.4	8.2	0.32	65.2	<0.001	<0.002	<0.01	<0.001	<0.001	2.8
20.08.2015	50.1	36.2	16.2	21.2	8.8	0.35	68.6	<0.001	<0.002	<0.01	<0.001	<0.001	3.2
24.08.2015	58.9	40.1	16.8	22.5	9.3	0.37	69.7	<0.001	<0.002	<0.01	<0.001	<0.001	3.8
28.08.2015	63.7	42.8	17.2	23.1	9.7	0.38	67.5	<0.001	<0.002	<0.01	<0.001	<0.001	3.7
31.08.2015	40.1	19.2	13.2	15.6	<4.0	0.2	70.9	<0.001	<0.002	<0.01	<0.001	<0.001	<0.01
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1.0	06	-
Average	54.13	35.3	16.07	20.77	< 8.57	0.34	65.54	<0.001	<0.002	<0.01	<0.001	<0.001	<3.62
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling	Ion Selective method after sampling

BDL Values: SO₂< 4 µg/m³, NO_x< 9 µg/m³, O₃< 4 µg/m³, Ni<0.001 ng/m³, As < 0.001 ng/m³, C₆H₆<0.001 µg/m³, BaP<0.002 ng/m³, Pb<0.001 µg/m³, F<0.01 µg/m³, CO<0.1 mg/m³

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For Visiontek Consultancy Services Pvt. Ltd.
No. 834 Dt. 12-04-2013



Visiontek Consulting Services Pvt. Ltd.

(An Enviro Engineering Consulting Cell)

Ref: VCSPL/15/R-590

Date: 03.10.2015

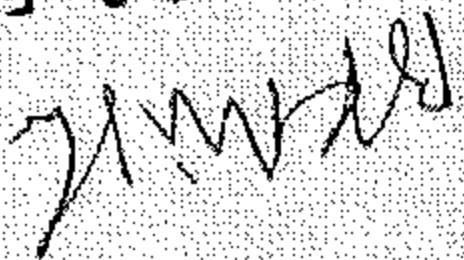
AMBIENT AIR QUALITY MONITORING REPORT FOR SEPTEMBER-2015

1. Name of Industry : M/s Hindlco Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Sampling Location : Monitoring Station No- AAQ 1 (Near ETP Plant)
3. Monitoring Instruments : RDS(APM 460-BL), PPS(APM 550) Envirotech, CO Monitor, VOC Sampler
4. Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

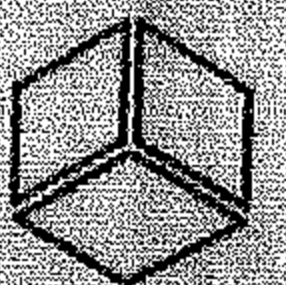
PARAMETERS

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	NI (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
03.09.2015	65.3	33.6	14.3	17.5	5.6	0.3	60.5	<0.001	<0.002	<0.01	<0.001	<0.001
07.09.2015	74.6	38.4	16.4	20.6	7.8	0.38	62.4	<0.001	<0.002	<0.01	<0.001	<0.001
10.09.2015	68.5	34.7	15.1	20.2	7.2	0.34	58.3	<0.001	<0.002	<0.01	<0.001	<0.001
14.09.2015	79.4	40.8	16.6	21.5	7.5	0.4	61.6	<0.001	<0.002	<0.01	<0.001	<0.001
17.09.2015	59.6	30.4	14.8	18.9	6.5	0.33	58.2	<0.001	<0.002	<0.01	<0.001	<0.001
21.09.2015	66.2	33.2	15.6	20.8	5.5	0.35	60.5	<0.001	<0.002	<0.01	<0.001	<0.001
24.09.2015	56.2	28.4	15.1	20.3	5.8	0.3	48.5	<0.001	<0.002	<0.01	<0.001	<0.001
28.09.2015	75.4	37.8	17.4	23.5	7.4	0.36	54.6	<0.001	<0.002	<0.01	<0.001	<0.001
NAAQ Standard	100	60	80	80	100	4	400	05	01	20	1:0	06
Average	68.15	34.66	15.66	20.41	6.66	0.35	58.08	<0.001	<0.002	<0.01	<0.001	<0.001

BDL Values: SO₂ < 4 µg/m³, NO_x < 9 µg/m³, O₃ < 4 µg/m³, NI < 0.01 mg/m³, As < 0.001 mg/m³, C₆H₆ < 0.001 µg/m³, BaP < 0.002 ng/m³, Pb < 0.001 µg/m³, P < 0.01 µg/m³, CO < 0.1 mg/m³


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ISO 14001:2004
ISO 9001:2008
OHSAS 18001:2007

Ref: VCSPL/151R-c91

Date: 02.10.2015

AMBIENT AIR QUALITY MONITORING REPORT FOR SEPTEMBER-2015

- Name of Industry : M/s Hindalco Industries Ltd (Unit: Aditya Aluminium); Lapanga
- Sampling Location : Monitoring Station No.- AAQ 2 (Near First Aid Centre)
- Monitoring Instruments : RDS(APM 460 BL), FPS(APM 550) Envirotech, CO Monitor, VOC Sampler
- Sample collected by : VCSPL representative in presence of Aditya Aluminium representative

PARAMETERS

Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)	F (µg/m ³)
03.09.2015	58.5	30.2	16.2	21.8	6.8	0.35	72.2		<0.001	<0.01	<0.001	<0.001	2.4
07.09.2015	69.8	36.1	17.5	22.9	7.2	0.38	68.5		<0.001	<0.01	<0.001	<0.001	3.2
10.09.2015	66.4	39.4	17.6	22.6	8.4	0.4	70.5		<0.001	<0.01	<0.001	<0.001	3.5
14.09.2015	62.7	32.2	18.1	23.5	8.2	0.39	68.6		<0.001	<0.01	<0.001	<0.001	3.3
17.09.2015	57.4	29.1	16.9	22.4	7.5	0.36	64.2		<0.001	<0.01	<0.001	<0.001	2.6
21.09.2015	55.6	28.2	16.2	21.7	6.8	0.34	61.6		<0.001	<0.01	<0.001	<0.001	2.2
24.09.2015	58.2	29.6	16.8	22.6	7.1	0.33	62.4		<0.001	<0.01	<0.001	<0.001	1.6
28.09.2015	60.8	31.6	16.5	22.2	6.8	0.34	67.2		<0.001	<0.01	<0.001	<0.001	1.9
NAAQ Standard	100	60	80	80	100	4	400	0.05	0.01	20	1.0	0.6	-
Average	61.18	31.30	16.98	22.46	7.35	0.36	66.9		<0.001	<0.01	<0.001	<0.001	2.59

B.K. Mishra

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For Visiontek Consultancy Services Pvt. Ltd.
GAZETTE No. 834 DL 12-04-2015

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ISO 14001:2004
ISO 9001:2008
OHSAS 18001:2007

Ref: VCSPL/15/R-CCY(1)

Date: 01.08.2015

SURFACE WATER QUALITY ANALYSIS REPORT

- Name of Industry: M/S Hindalco Industries Ltd (Unit- Aditya Aluminium), Lapanga
- Sampling location: SW-1: Hirakud Reservoir, SW-2: Lapanga Pond, SW-3: Matwadinadi, SW-4: Bomator Pond, SW-5: Bhedan river.
- Date of sampling: 02.06.2015
- Date of analysis: 06.06.2015 to 13.06.2015
- Sample collected by: VCSPL Representative in presence of Aditya Aluminium Representative

Sl. No.	Parameter	Testing Methods	Unit	Standards as per IS:2296-1997 Class	SW-1	SW-2	SW-3	SW-4	SW-5
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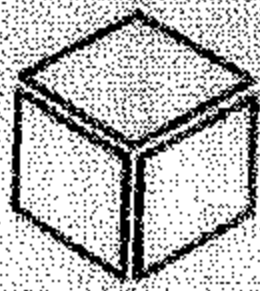
1	pH Value	APIA 4500F B	-	6.0-9.0	7.32	7.22	7.05	7.14	7.23
2	Colour	APIA 2120 B, C	Hazen	300	CL	CL	CL	CL	CL
3	Taste	APIA 2160 C	-	-	AL	AL	AL	AL	AL
4	Odour	APIA 2150 B	-	-	U/O	U/O	U/O	U/O	U/O
5	Conductivity	APIA 2510 B	µs/cm	-	99.8	96.1	87.2	95.7	83.1
6	Turbidity	APIA 2130 B	NTU	-	2.2	1.6	1.7	1.9	2.1
7	Total Dissolved Solids	APIA 2540 C	mg/l	1500	124.0	121.0	121.0	128.0	117.0
8	Total Hardness (as CaCO ₃)	APIA 2340 C	mg/l	-	56.0	50.0	48.0	58.0	44.0
9	Total Alkalinity	APIA 2320 B	mg/l	-	48.0	46.0	41.0	48.0	44.0
10	Calcium (as Ca)	APIA 3500C A, B	mg/l	-	14.43	16.03	15.23	10.42	8.82
11	Magnesium (as Mg)	APIA 3500Mg B	mg/l	-	4.9	3.9	2.9	5.3	5.5
12	Residual free Chlorine	APIA 4500CL B	mg/l	-	ND	ND	ND	ND	ND
13	Boron (as B)	APIA 4500B, B	mg/l	-	-	-	-	-	-
14	Chloride (as Cl)	APIA 4500CL B	mg/l	600	21.0	18.0	14.0	17.0	13.0
15	Sulphate (as SO ₄)	APIA 4500 SO ₄ F, E	mg/l	400	10.2	8.7	9.2	8.9	8.4
16	Fluoride (as F)	APIA 4500F C	mg/l	1.5	0.18	0.17	0.17	0.16	0.18
17	Nitrate (as NO ₃)	APIA 4500 NO ₃ E	mg/l	50	1.44	1.87	1.72	1.9	1.84
18	Sodium as Na	APIA 3500-NA	mg/l	-	-	-	-	-	-
19	Potassium as K	APIA 3500-K	mg/l	-	0.98	0.81	0.9	0.8	0.7
20	Phenolic Compounds (as C ₆ H ₅ OH)	APIA 5530 B, D	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001
21	Cyanide (as CN)	APIA 4500 CN, C, D	mg/l	0.05	ND	ND	ND	ND	ND
22	Aromatic Hydrocarbons (as MBAS)	APIA 5540 C	mg/l	1.0	<0.2	<0.2	<0.2	<0.2	<0.2
23	Cadmium (as Cd)	APIA 3111 B, C	mg/l	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
24	Arsenic (as As)	APIA 3114 B	mg/l	0.2	<0.001	<0.001	<0.001	<0.001	<0.001
25	Copper (as Cu)	APIA 3111 B, C	mg/l	1.5	<0.001	<0.001	<0.001	<0.001	<0.001
26	Lead (as Pb)	APIA 3111 B, C	mg/l	0.1	<0.001	<0.001	<0.001	<0.001	<0.001
27	Manganese (as Mn)	APIA 3500Mn B	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001
28	Iron (as Fe)	APIA 3500Fe B	mg/l	0.5	0.26	0.2	0.24	0.21	0.17
29	Chromium (as Cr ⁶⁺)	APIA 3500Cr B	mg/l	0.05	<0.002	<0.002	<0.002	<0.002	<0.002
30	Selenium (as Se)	APIA 3114 B	mg/l	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc (as Zn)	APIA 3111 B, C	mg/l	15	<0.001	<0.001	<0.001	<0.001	<0.001
32	Aluminium as (Al)	APIA 3500Al B	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001
33	Mercury (as Hg)	APIA 3500 Hg	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001
34	Mineral Oil	APIA 5220 B	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001
35	Pesticides	APIA 6630 B, C	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001
36	E.Coli	APIA 9221 F	MPN/100 ml	-	Absent	Absent	Absent	Absent	Absent
37	Total Coliforms	APIA 9221 B	MPN/100 ml	-	Absent	Absent	Absent	Absent	Absent

Note: CL: Colourless, AL: Agreeable, U/O: Unobjectionable, ND: Not detected.

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GOVT. ANALYST

Visiontek Consultancy Services Pvt. Ltd.
12-04-2013

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"Committed For The Better Environment"



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(An Enviro Engineering Consulting Cell)



ISO 14001:2004
ISO 9001:2008
OBSAS 18001:2007

Ref. VCSPL/15/R-539 (II)

SURFACE WATER QUALITY ANALYSIS REPORT

Date: 05.08.2015

- Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
- Sampling location : SW-6: Bhedan river near Katikela; SW-7: Matwadinadi-D/s; SW-8: Hirakud reservoir near Gumpuli village; SW-9: Salepali village; SW-10: Sanamal.
- Date of sampling : 02.06.2015
- Date of analysis : 06.06.2015 to 13.06.2015
- Sample collected by : VCSPL Representative in presence of Aditya Aluminium Representative

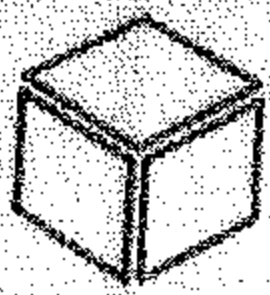
Sl. No.	Parameter	Testing Methods	Unit	Standards as per IS-2296:1992 Class 'C'	Analysis Results				
					SW-6	SW-7	SW-8	SW-9	SW-10
1	pH Value	APHA 4500H B	--	6.0-9.0	7.22	7.38	7.1	7.18	7.29
2	Colour	APHA 2120 B, C	Hazen	300	CL	CL	CL	CL	CL
3	Taste	APHA 2160 C	--	--	AL	AL	AL	AL	AL
4	Odour	APHA 2150 B	--	--	U/O	U/O	U/O	U/O	U/O
5	Conductivity	APHA 2510-B	µs/cm	--	96.5	94.0	107.3	104.2	111.1
6	Turbidity	APHA 2130 B	NTU	--	2.4	2.9	2.0	2.2	1.9
7	Total Dissolved Solids	APHA 2540 C	mg/l	1500	118.0	121.0	132.0	117.0	120.0
8	Total Hardness (as CaCO ₃)	APHA 2340 C	mg/l	--	56.0	58.0	52.0	54.0	56.0
9	Total Alkalinity	APHA 2320 B	mg/l	--	49.0	53.0	51.0	56.0	58.0
10	Calcium (as Ca)	APHA 3500Ca B	mg/l	--	15.03	14.43	11.22	13.63	14.43
11	Magnesium (as Mg)	APHA 3500Mg B	mg/l	--	3.9	5.3	5.8	4.9	4.9
12	Residual, free Chlorine	APHA 4500Cl, B	mg/l	--	ND	ND	ND	ND	ND
13	Boron (as B)	APHA 4500B, B	mg/l	--	<0.001	<0.001	<0.001	<0.001	<0.001
14	Chloride (as Cl)	APHA 4500Cl B	mg/l	600	16.0	14.0	19.0	21.0	21.0
15	Sulphate (as SO ₄)	APHA 4500 SO ₄ ²⁻ E	mg/l	400	6.4	8.8	8.2	8.6	9.4
16	Fluoride (as F)	APHA 4500F C	mg/l	1.5	0.21	0.18	0.22	0.24	0.17
17	Nitrate (as NO ₃)	APHA 4500 NO ₃ E	mg/l	50	2.84	2.73	2.8	2.92	2.8
18	Sodium as Na	APHA 3500-K	mg/l	--	11.6	9.8	13.2	12.6	15.1
19	Potassium as K	APHA 3500-Na	mg/l	--	0.84	0.8	1.1	1.2	1.2
20	Phenolic Compounds (as C ₆ H ₅ OH)	APHA 5530 B,D	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001
21	Cyanide (as CN)	APHA 4500 CN C,D	mg/l	0.05	ND	ND	ND	ND	ND
22	Anionic Detergents (as MBAS)	APHA 5540 C	mg/l	1.0	<0.2	<0.2	<0.2	<0.2	<0.2
23	Cadmium (as Cd)	APHA 3111 B,C	mg/l	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
24	Arsenic (as As)	APHA 3114 B	mg/l	0.2	<0.001	<0.001	<0.001	<0.001	<0.001
25	Copper (as Cu)	APHA 3111 B,U	mg/l	1.5	<0.001	<0.001	<0.001	<0.001	<0.001
26	Lead (as Pb)	APHA 3111 B,C	mg/l	0.1	<0.001	<0.001	<0.001	<0.001	<0.001
27	Manganese (as Mn)	APHA 3500Mn B	mg/l	--	<0.001	<0.001	<0.001	<0.001	<0.001
28	Iron (as Fe)	APHA 3500Fe, B	mg/l	0.5	0.24	0.28	0.21	0.23	0.24
29	Chromium (as Cr ⁶⁺)	APHA 3500Cr B	mg/l	0.05	<0.002	<0.002	<0.002	<0.002	<0.002
30	Selenium (as Se)	APHA 3114 B	mg/l	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
31	Zinc (as Zn)	APHA 3111 B,C	mg/l	15	<0.001	<0.001	<0.001	<0.001	<0.001
32	Aluminium as (Al)	APHA 3500Al B	mg/l	--	<0.001	<0.001	<0.001	<0.001	<0.001
33	Mercury (as Hg)	APHA 3500 Hg	mg/l	--	<0.001	<0.001	<0.001	<0.001	<0.001
34	Mineral Oil	APHA 5220 B	mg/l	--	<0.001	<0.001	<0.001	<0.001	<0.001
35	Pesticides	APHA 6630 B,C	mg/l	--	Absent	Absent	Absent	Absent	Absent
36	E. Coli	APHA 9221-F	MPN/100 ml	--	Absent	Absent	Absent	Absent	Absent
37	Total Coliforms	APHA 9221-B	MPN/100 ml	5000	670	440	490	380	710

Note: CL: Colourless, AL: Agreeable, U/O: Unobjectionable, ND: Not detected.

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(An Enviro Engineering Consulting Cell)



ISO 14001:2004
ISO 9001:2008
OHSAS 18001:2007

Ref: VCSPL/IF/R-503

SOIL QUALITY ANALYSIS REPORT

Date: 05.08.2015

- Name of Industry : M/s Hindalco Industries Ltd (Unit- Aditya Aluminium); Lapanga
- Date of Sampling : 04.06.2015
- Sampling Location : S-1: Project Site; S-2:Thelkoi; S-3:Ghichamura; S-4:Lapanga; S-5:Bomalo;S-6:Tileimal; S-7:Jangala; S-8:Gurupali; S-9: Gurukarama; S-10:Bhadarpali
- Date of Analysis : 06.06.2015 to 13.06.2015
- Sample Collected By : VCSPL representative in Presence of Aditya Aluminium representative

Sl.No.	Parameters	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10
1	pH	5.56	5.6	5.68	5.5	5.7	5.52	5.61	5.66	5.52	5.5
2	Conductivity	97.2	83.1	79.6	85.3	97.6	77.8	92.3	87.4	85.3	91.6
3	Soil Texture	Sandy Loam	Clay Loamy	Clay Loamy	Sandy Loam	Sandy Loam	Clay Loamy	Sandy Loam	Sandy Loam	Sandy Loam	Clay Loamy
4	Sand	41.02	16.3	38.59	46.32	18.2	17.4	41.23	43.59	42.63	18.2
5	Silt	14.12	17.42	12.02	13.68	10.44	17.42	15.23	13.26	17.44	16.2
6	Clay	46.23	63.24	49.52	39.56	41.2	65.22	43.28	42.21	39.65	64.25
7	Bulk Density (gm/cc)	1.44	1.34	1.36	1.46	1.46	1.38	1.42	1.46	1.42	1.4
8	Exchangeable Calcium as Ca (%)	39.2	41.3	40.6	41.2	42.6	39.6	44.4	46.3	41.3	37.6
9	Exchangeable Magnesium as Mg (%)	53.22	62.32	55.0	56.24	60.24	56.48	67.44	70.12	61.25	54.25
10	Available Sodium as Na (%)	0.024	0.023	0.02	0.025	0.024	0.021	0.025	0.027	0.022	0.024
11	Available Potassium as K (%)	0.06	0.064	0.056	0.058	0.063	0.054	0.07	0.074	0.058	0.066
12	Available phosphorus as P (%)	0.018	0.019	0.026	0.024	0.02	0.022	0.018	0.021	0.022	0.022
13	Available Nitrogen as N (%)	0.16	0.19	0.17	0.13	0.14	0.14	0.19	0.17	0.17	0.15
14	Organic Matter (%)	2.86	3.17	3.1	2.44	2.58	2.65	3.14	3.0	3.18	3.12
15	Organic Carbon (%)	1.74	1.92	1.78	1.44	1.52	1.56	1.92	1.76	1.94	1.78
16	Water soluble Chlorides as Cl (%)	0.24	0.22	0.19	0.19	0.24	0.24	0.26	0.21	0.26	0.25
17	Water soluble Sulphates as SO ₄ (%)	0.22	0.19	0.17	0.15	0.17	0.18	0.2	0.18	0.21	0.18
18	Sodium Absorption Ratio (%)	0.144	0.14	0.121	0.142	0.147	0.129	0.146	0.148	0.134	0.15
19	Aluminium as Al (%)	0.0004	0.00009	0.00006	0.00008	0.00006	0.00006	0.00005	0.00004	0.00008	0.00005
20	Total Iron as Fe (%)	0.018	0.019	0.015	0.017	0.019	0.017	0.019	0.021	0.017	0.018
21	Manganese as Mn (%)	0.003	0.0016	0.0024	0.0022	0.0022	0.0017	0.0016	0.0018	0.0009	0.0009
22	Boron as B (%)	0.00028	0.00009	0.00014	0.00016	0.00018	0.00016	0.00021	0.00015	0.00012	0.00014
23	Zinc as Zn (%)	0.00021	0.00018	0.00014	0.00011	0.00013	0.00016	0.00014	0.00012	0.00013	0.00013
24	SiO ₂ (%)	6.12	5.8	6.38	6.24	6.34	5.98	6.1	6.08	6.12	6.0
25	Fe ₂ O ₃ (%)	0.027	0.026	0.022	0.023	0.029	0.024	0.026	0.031	0.024	0.026
26	CaO (%)	54.2	58.6	55.3	56.7	59.2	53.2	62.4	63.0	58.6	52.4
27	MgO (%)	88.21	98.6	91.4	93.65	99.47	93.62	110.5	114.74	102.54	89.64
28	Al ₂ O ₃ (%)	0.0006	0.00019	0.00011	0.00013	0.00011	0.00012	0.00009	0.00009	0.00012	0.00009
29	FeO (%)	0.021	0.023	0.0194	0.021	0.0245	0.0219	0.023	0.026	0.022	0.0208
30	MnO (%)	0.0021	0.0009	0.0019	0.0017	0.0017	0.0012	0.0012	0.0014	0.0008	0.0007
31	K ₂ O (%)	0.075	0.0768	0.0628	0.067	0.075	0.062	0.082	0.0861	0.071	0.077
32	P ₂ O ₅ (%)	0.039	0.044	0.055	0.053	0.041	0.051	0.042	0.046	0.043	0.052
33	Fluoride as F (%)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND: Not Detected.

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Ref: VCSPL/IE/R-556

Date: 05.08.2015

NOISE MONITORING REPORT

1. Name of Industry : M/s Hindaleo Industries Ltd (Unit- Aditya Aluminium); Lapanga
2. Monitored By : VCSPL representative in presence of Aditya Aluminium representative

Daytime Noise monitoring results (Noise Level in dB (A)) July-2015

TIME (6.00AM to 10.00PM)	N1:Gumkarma 02.07.2015	N2:Ghichamura 02.07.2015	N3:Bomaloi 02.07.2015	N4:Tileimal 03.07.2015	N5:Thekkoli 03.07.2015	N6:Lapanga 04.07.2015	N7:Lapanga Railway Station 04.07.2015	N8:Jangala 04.07.2015
6:25 AM	34.8	21.6	30.9	27.1	46.4	33.6	34.6	24.8
7:25 AM	37.0	22.0	34.2	29.3	44.3	34.5	36.5	23.6
8: 25 AM	38.9	23.1	35.6	29.6	43.8	36.3	39.5	25.4
9: 25 AM	48.5	25.6	42.5	33.5	49.2	41.8	41.6	25.6
10: 25 AM	51.2	31.0	48.6	36.4	61.5	46.2	51.6	36.4
11: 25 AM	56.8	32.9	47.5	37.2	69.9	51.2	61.3	37.2
12: 25 Noon	55.0	31.2	51.6	35.4	72.6	53.6	66.8	29.6
1: 25 PM	55.6	29.4	45.2	33.6	69.3	44.8	62.4	25.3
2: 25 PM	51.4	27.4	46.3	31.2	64.0	47.2	59.6	25.3
3: 25 PM	53.2	26.3	45.3	30.4	59.8	49.6	51.6	24.1
4: 25 PM	51.2	25.1	42.8	28.6	60.2	46.2	53.2	31.2
5: 25 PM	52.0	29.9	46.3	33.4	61.4	51.2	60.7	36.5
6: 25 PM	53.6	33.2	47.9	38.6	67.8	51.9	63.6	31.2
7: 25 PM	49.7	35.1	47.0	35.2	69.9	49.6	58.7	29.7
8: 25 PM	47.6	36.7	39.8	33.1	63.8	41.2	51.2	28.3
9: 25 PM	43.2	32.2	32.2	29.8	65.5	35.6	47.8	26.8

Night time Noise monitoring results (Noise Level in dB (A)) July-2015

TIME (10.00PM to 6.00AM)	N1:Gumkarma 02.07.2015	N2:Ghichamura 02.07.2015	N3:Bomaloi 02.07.2015	N4:Tileimal 03.07.2015	N5:Thekkoli 03.07.2015	N6:Lapanga 04.07.2015	N7:Lapanga Railway Station 04.07.2015	N8:Jangala 04.07.2015
10:25 PM	39.8	24.1	27.6	23.4	51.0	31.2	44.6	24.6
11: 25 PM	36.2	22.2	25.6	22.3	49.8	29.6	41.2	23.2
12: 25 Mid Night	37.1	23.2	24.1	22.7	42.0	25.2	36.2	21.7
1: 25 AM	35.2	22.8	26.3	23.1	42.3	24.6	33.2	20.3
2: 25 AM	34.3	22.1	23.3	23.0	40.0	24.1	33.1	20.4
3: 25 AM	32.1	22.0	23.2	22.9	39.6	23.2	33.2	22.6
4: 25 AM	32.2	22.3	22.1	22.7	38.4	22.6	35.2	22.9
5: 25 AM	35.2	21.0	23.0	22.1	42.5	28.9	37.8	23.8

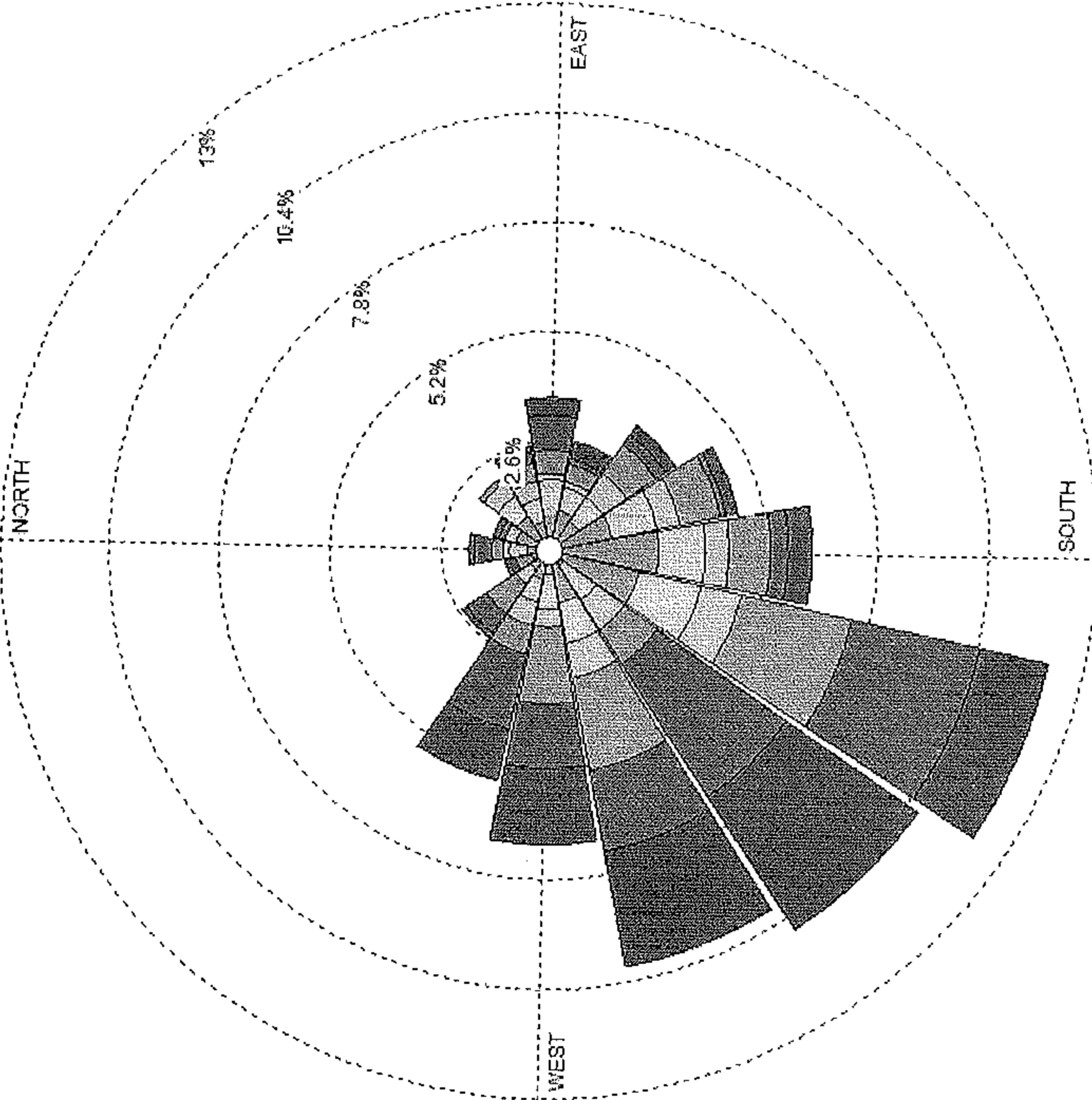
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GOVT. ANALYST
(GAZETTE No. 834 Dt. 12-04-2013)

For Visiontek Consultancy Services Pvt. Ltd.

WIND ROSE PLOT:

WIND ROSE DIAGRAM FOR THE MONTH OF APRIL 2015

DISPLAY:
Wind Speed
Flow Vector (blowing to)



WIND SPEED (m/s)

- >= 11.1
- 8.8 - 11.1
- 5.7 - 8.8
- 3.6 - 5.7
- 2.1 - 3.6
- 0.5 - 2.1

Catch: 22.36%

COMMENTS

WEATHER MONITORING STATION
INSTALLED NEAR RAW WATER
RESERVOIR OF ADITYA
ALUMINIUM

DATA PERIOD

Start Date: 01-04-2015 - 00:00
End Date: 30-04-2015 - 23:00

TOTAL DOUNT

719 hrs.

CATCH WIND

22.36%

AVG. WIND SPEED

5.54 m/s

COMPANY NAME

ADITYA ALUMINIUM

MODEL

DATE:

05-05-2015

ADITYA BIRLA



HINDALCO

PROJECT NO.:

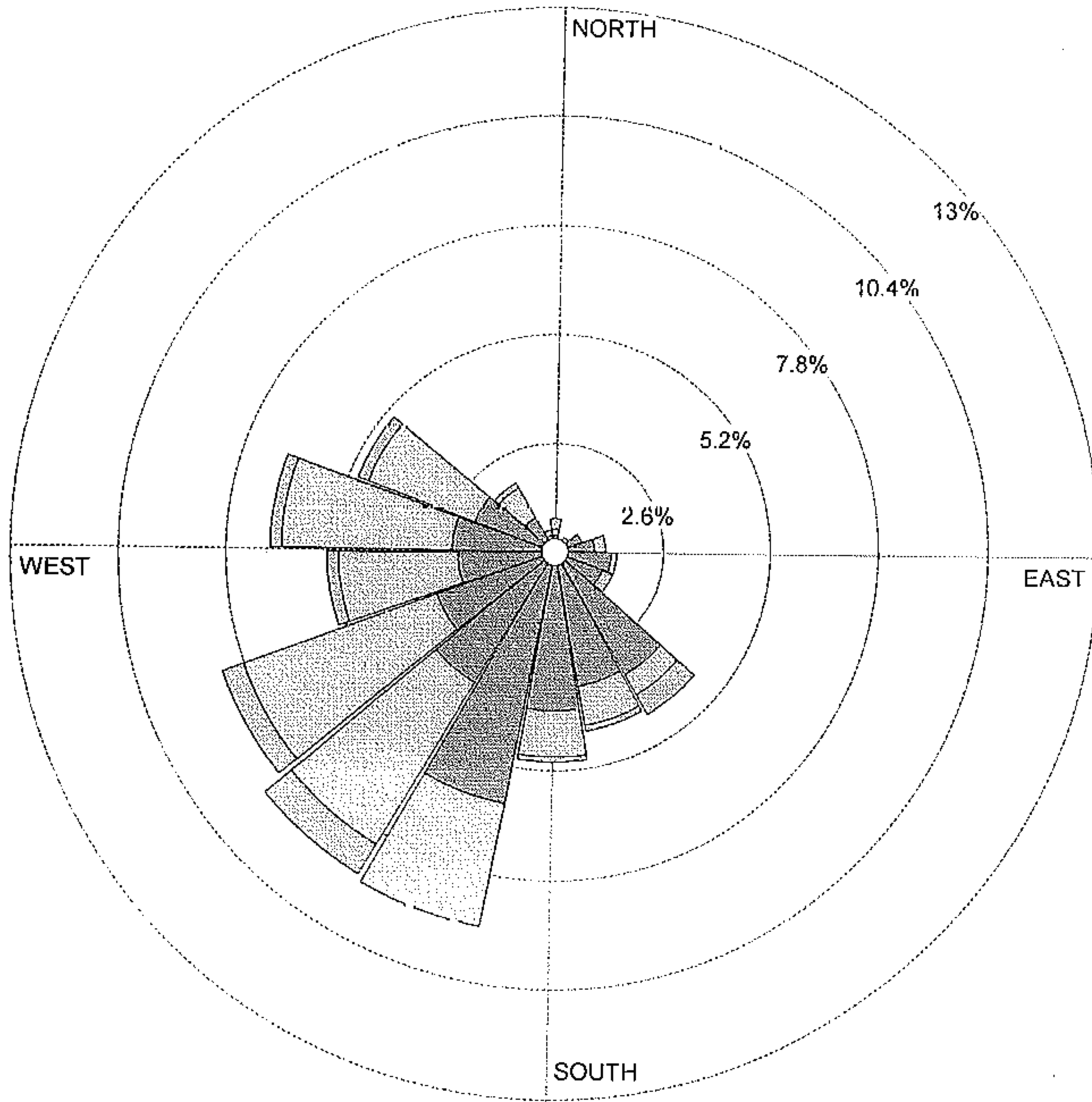
STATION #1

WIND ROSE PLOT:







WIND ROSE DIAGRAM FOR THE MONTH OF MAY 2015

DISPLAY:


Wind Speed
Flow Vector (blowing to)



WIND SPEED
(m/s)

-  >= 11.1
-  8.8 - 11.1
-  5.7 - 8.8
-  3.6 - 5.7
-  2.1 - 3.6
-  0.5 - 2.1

Calms: 34.14%

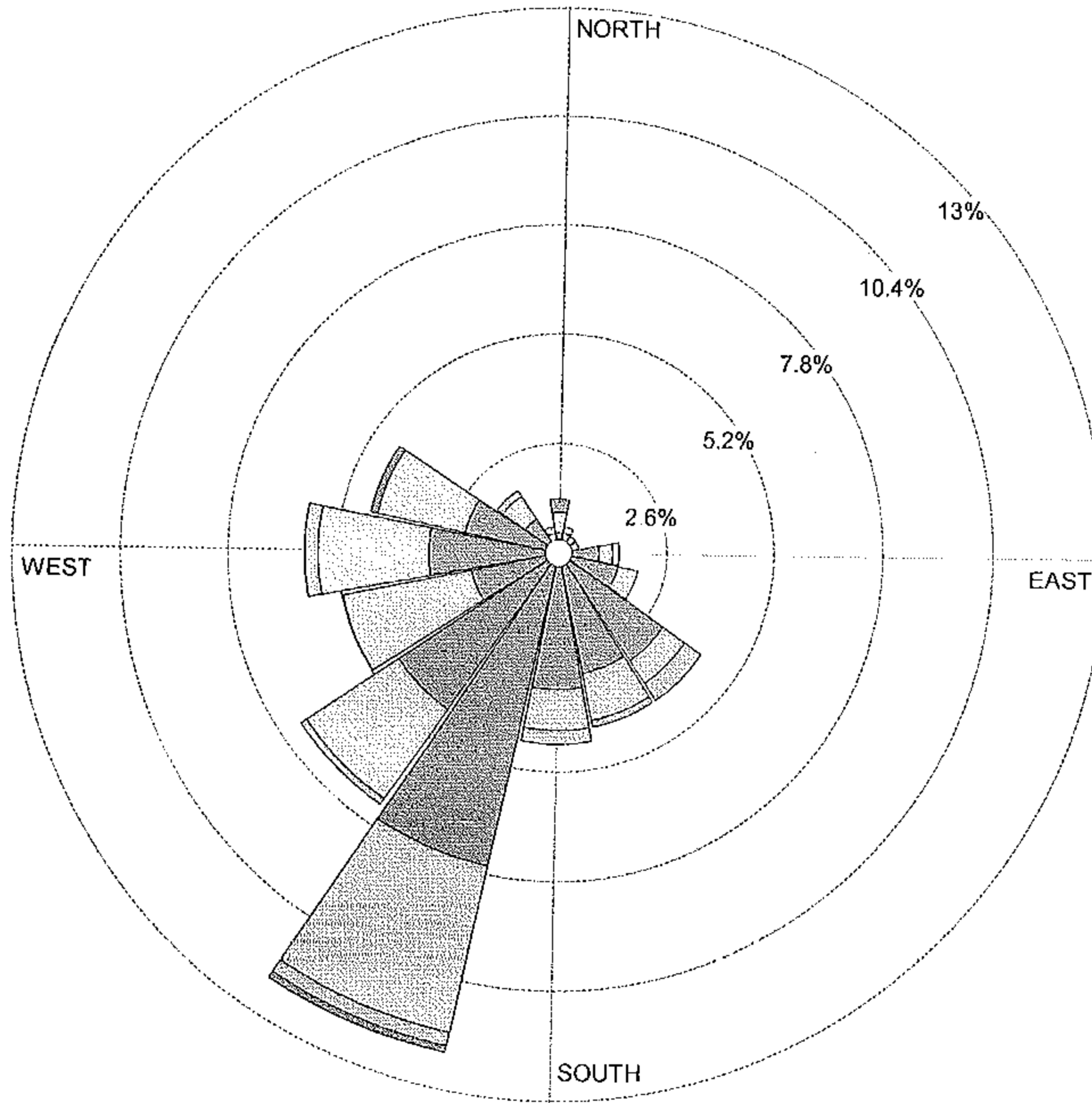
<p>COMMENTS:</p> <p>WEATHER MONITORING STATION INSTALLED NEAR RAW WATER RESERVOIR OF ADITYA ALUMINIUM</p>	<p>DATA PERIOD:</p> <p>Start Date: 01-05-2015 - 00:00 End Date: 31-05-2015 - 23:00</p>	<p>COMPANY NAME:</p> <p>ADITYA ALUMINIUM</p>		
	<p>CALM WINDS:</p> <p>34.14%</p>	<p>MODELER:</p>		
	<p>AVG. WIND SPEED:</p> <p>1.28 m/s</p>	<p>TOTAL COUNT:</p> <p>743 hrs.</p>		

WIND ROSE PLOT:







WIND ROSE DIAGRAM FOR THE MONTH OF JUNE 2015

DISPLAY:

Wind Speed
Flow Vector (blowing to)



WIND SPEED (m/s)

-  >= 11.1
-  8.8 - 11.1
-  5.7 - 8.8
-  3.6 - 5.7
-  2.1 - 3.6
-  0.5 - 2.1

Calms: 43.32%

COMMENTS:

WEATHER MONITORING STATION INSTALLED NEAR RAW WATER RESERVOIR OF ADITYA ALUMINIUM

DATA PERIOD:

Start Date: 01-06-2015 - 00:00
End Date: 26-06-2015 - 20:00

COMPANY NAME:

ADITYA ALUMINIUM

MODELER:

TOTAL COUNT:

620 hrs.

CALM WINDS:

43.32%

AVG. WIND SPEED:

1.05 m/s

DATE:

09-07-2015

ADITYA BIRLA



PROJECT NO.:

STATION #1

RR & CSR

“Half Yearly Report”

ADITYA ALUMINIUM LAPANGA SAMBALPUR

Resettlement & Rehabilitation

Details of DP status as on 31st July 2015

Sl. No	Village	Hamlet	No of DPs as on 01.01.2012	Shifting Status upto July 2015	Shifted to RR Colony	Shifted by Self Relocation	Balance DP to shift	Opted for Job	Training done and in Job	Bal DP for Training	CILE Paid	CILE Applied for	RR Benefit given to shifted DPs Y/N	Remark
1	Derba	Dhudkabahal	45	45	43	2	0	13	9	4	32	0	Y	*1 DP done 2yrs ITI but seriously ill and 3are still studying
2	Tileimal	Situpada	16	16	9	7	0	2	2	0	14	0	Y	
		Mareipada	24	24	13	11	0	1	1	0	23	0	Y	
3	Bomalo	Biripada	15	15	15	0	0	3	3	0	12	0	Y	
		Mundapada	35	35	32	3	0	3	3	0	31	1	Y	
		Nuapada	82	61	59	2	6	20	7	13	11	24	Y	A) 01 DP Ms. Para Kisan, D/o Krushna Kisan Married before shifting). B) 14 DP excluded from the list (4 opted for job) C) 10 DP will be going for training in Sep'15 and 01 DP is doing course at their own expenses
4	Katarbaga	Bhalududia	147	147	138	9	0	21	20	1	126	1	Y	1 DP will pass out ITI in Sep'15
5	Jangala	Parekhpada-1	19	4	4	0	15	4	0	4	4	0	Y	
		Parekhpada-2	14	14	14	0	0	0	0	0	0	13	Y	
		Khamaripada	12	3	3		9	5	1	4	2	0	Y	
6	Bhoipalli	Bhoipali	12	8	7	1	4	0	0	0	2	5	Y	
7	Ludhapalli	Ludhapali	12	12	11	1	0	0	0	0	10	2	Y	CILE already approved, but to be deposited at Spl. LAO office
Total			433	384	348	36	34	72	*46	26	267	46		

Updated DP List from District Administration is still awaited

CSR area of intervention.....

- Villages - 22
- Population - 23,160
- Blocks - 2
- District - Sambalpur



ADITYA ALUMINIUM LAPANGA SAMBALPUR

Aditya Aluminium CSR Expenses Dash Board 2005 - 2015

Sl. No	Year	CSR Expenses year wise	Remarks
1	2005	240,000	Completed
2	2006	133,600	Completed
3	2007	110,000	Completed
4	2008	358,479	Completed
5	2009-10	65,418,975	Completed
6	2010-11	12,808,666	Completed
7	2011-12	9,128,786	Completed
8	2012-13	16,241,048	Completed
9	2013-14	11,445,539	Completed
10	2014-15	14,632,199	Completed
Grand Total		130,517,292	

ADITYA ALUMINIUM LAPANGA SAMBALPUR

Dash Board - 2015-16 CSR Expenses & Activities Till Date			
Focus Area	No. of Events/ Centers	Total Beneficiaries	Total Expenses
EDUCATION	120	6022	1577993
HEALTH	56	15451	55710930
RURAL INFRASTRUCTURE	6	2300	1857778
LIVELIHOOD PROMOTION	82	1597	237480
SOCIAL CAUSES	10	2270	335000
OTHER	10	14	1589000
GRAND TOTAL	284	27654	61308181

ADITYA ALUMINIUM LAPANGA SAMBALPUR

Focus Area	Particulars	No. of Events/ Centers	Total Beneficiaries	Total Expenses
EDUCATION	Anganwadi Center	8	200	0
	KALIKA Coaching Centre (Rolling Plan)	28	742	0
	Monthly Parents Teacher Meet (Rolling Plan)	14	795	35000
	Adult Education (Rolling Plan)	19	888	64000
	Teacher's Training	1	8	15000
	Financial Help for Admission in School (Girl Child)	2	6	33993
	Vehicle support to the students	10	170	78500
	Distribution of Copies and Stationaries	7	999	80000
	Distribution of School Furniture (Bench & Desk)	5	884	436500
	School Infrastructure - Construction of Toilets at Primary schools	25	1260	800000
	Bhalududia Primary School Painting	1	70	35000
	HEALTH	Community Dispensary	10	66
Mega Blood Donation Camp		1	125	20000
Drinking Water Supply to Project Affected Villages		22	13000	3629600
Inter- sectorial Co-ordination and planning meeting on Malaria, Dengue and Diarrhea:		1	400	13530
Awareness on Dengue, Jaundice and Malaria		7	460	35000
Awareness on Nutrition of Mother and Child		4	280	20000
Awareness on Nutrition for Growing Child		2	155	10000
Awareness on Health and Hygiene		1	80	6000
Adolescent Health Care		3	210	18000
Healthy Baby Competition		2	160	25000
School Health Check-Up Camp		2	305	8800
RWSS Water Project, Rengali		1	15000	51700000
Drilling of Deep Bore-well at Sithapada		1	210	115000

ADITYA ALUMINIUM LAPANGA SAMBALPUR

Details of 2015-16 CSR Expenses & Activities till 12.11.15

Focus Area	Particulars	No. of Events/ Centers	Total Beneficiaries	Total Expenses
RURAL INFRASTRUCTURE	Construction of Community Hall, Pitapali	1	250	941600
	Budapada Village Mandap with Temple	1	160	227386
	Budapada Pond	1	160	273055
	Lakha Kanta, Orampada Pond	1	250	334070
	Ludhapali Pond Cleaning	1	740	29000
	Ludhapali Pond Bathing Step	1	740	52667
LIVELIHOOD PROMOTION	Strengthening SHGs while Conducting Weekly Meeting with Training	45	496	0
	Formation of New SHG	8	88	8800
	Animal Husbandry - Livestock Vaccination Camp	6	417	10000
	Agricultural Activities & Training for improved Farming	6	36	
	Crop Rejuvenation at Ghichamura	1	100	100180
	Banaraj Chick Distribution	1	25	8000
	Poultry Camp	2	300	5000
	Fish Cultivation	2	22	15000
	Tailoring Centre	4	40	0
	Formation of Village Development Committee (VDC)	5	62	5500
	Financial Contribution to Start Business	1	4	20000
Financial Assistance for House Building	1	7	65000	
SOCIAL CAUSES	Observation of World Environment Day	1	200	0
	Distribution of Sapling	4	1300	8000
	Awareness Program through Video Show on Various Social Causes	3	370	15000
	Contribution for Cultural, Festivals, Sports and other Social Activities	150	8000	300000
	Observation of Ganesh Puja in village schools	2	400	12000
OTHER	NGO SFA Staff Fees	10		1589000
GRAND TOTAL		284	27640	61308181

CSR Focus Areas

- **Education**
- **Health**
- **Sustainable Livelihood (Focus on Women Empowerment)**
- **Infrastructural development**
- **Social Issues (Special Support for Sports & Cultural activities)**

ADITYA ALUMINIUM LAPANGA SAMBALPUR

-:EDUCATION:-

KEY ACHIEVEMENTS & ISSUES:-

- ❑ **Pre School Education** - There are 4546 students have treated for Polio vaccination in in the year 2014-15 in coordination with government of Odisha
- ❑ **School Education program-** Vehicle support, Drawing Competition, Celebration of National Days and other activities- 4243 students in govt. schools in periphery area
 - Copy and Pen distributed in 7 schools among 999 students



ADITYA ALUMINIUM LAPANGA SAMBALPUR

-:EDUCATION:-

KEY ACHIEVEMENTS & ISSUES:-

- ❑ **Education Support program**-Promotion of Adult Education with 03 Centre with 116 Students, girl child education-scholarship to 5 girl child who are pursuing
-Learning Materials, Free KALIKA coaching Centers and other activities 104 students
-Bench and desk provision to 6 Govt. schools in 5 Villages covering 1245 students
- ❑ **Education infrastructure**
-Construction of 25 toilets in 8 Govt. schools 7 villages 4 GPs covering 1460 students
-Construction of school building in 6 Govt. schools in 6 villages 1550 students



ADITYA ALUMINIUM LAPANGA SAMBALPUR

-:HEALTH:-

KEY ACHIEVEMENTS & ISSUES:-

- ❑ **Preventive Healthcare** - Awareness camp on Adolescent Girl health, Immunization, Tuberculosis, Dengue, Malaria, etc.
-Mega blood donation Camp organized and 125 units of blood collected
- ❑ **Curative Healthcare** -Health Camps, Mobile health Check ups, Dispensary, etc. covering 822 patients
-School health care program in govt. schools with whole body checkup, Blood grouping and health card distribution
- ❑ **Health Infrastructure** -Supply of drinking water 5727 tanker trips to 121 hamlets daily covering 13100 population



ADITYA ALUMINIUM LAPANGA SAMBALPUR

-:SUSTAINABLE LIVELIHOOD:-

KEY ACHIEVEMENTS & ISSUES:-

- ❑ Non farm & Skill Based Income Generation Program : IGP training, SHG strengthening, Phanyl, Mushroom, Fish, Poultry, etc. Rs 6.38 Lacs covering 3889 beneficiaries
- ❑ Natural Resource Conservation & Non-conventional energy: 14 solar street light in 5 hamlets covering 450 beneficiaries
- ❑ Rural Infrastructure development : Road(Bituminous, WBM), Community Hall, Renovation /Excavation of ponds Rs 57.6 lakhs covering 7445 beneficiaries



ADITYA ALUMINIUM LAPANGA SAMBALPUR

-:SOCIAL ISSUES:-

KEY ACHIEVEMENTS & ISSUES:-

- ❑ Disaster relief programs :Flood situation management program in Sambalpur city Rs 3.4 Lacs covering 1295 beneficiaries
- ❑ Promotion of Heritage/culture/sports :Supporting rural culture and sports in 12 villages -Rs 4.39 lacs covering 19855 population
- ❑ Social events minimize causes of poverty :Pressure cooker distributed to 1250 beneficiaries – Rs 6.88 lacs
- ❑ Awareness program :Govt. schemes, anti-dowry, widow remarriage 12 villages Rs 0.73 lacs covering 865 beneficiaries





THANK YOU

