

STACK ANALYSIS
(October, 2011 – March, 2012)

Unit # 1

Parameters Measured : Suspended Particulate Matter (SPM)
Unit of Measurement : mg / NM³
Limit : 150.00

Sl.No.	Month / Year	Unit	Results
01.	October	mg / NM ³	SD
02.	November	mg / NM ³	SD
03.	December	mg / NM ³	165.45
04.	January	mg / NM ³	SD
05.	February	mg / NM ³	SD
06.	March	mg / NM ³	SD
Average		mg / NM ³	27.58

SD = The Unit was under shut-down.

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Unit # 2

Parameters Measured : Suspended Particulate Matter (SPM)
Unit of Measurement : mg / NM³
Limit : 100.00

Sl. No.	Month / Year	Unit	Results
01.	October	mg / NM ³	73.38
02.	November	mg / NM ³	73.53
03.	December	mg / NM ³	84.53
04.	January	mg / NM ³	23.90
05.	February	mg / NM ³	70.08
06.	March	mg / NM ³	74.22
Average		mg / NM ³	66.61

STACK ANALYSIS
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Unit # 3

Parameters Measured : Suspended Particulate Matter (SPM)
Unit of Measurement : mg / NM³
Limit : 100.00

Sl.No.	Month / Year	Unit	Results
01.	October	mg / NM ³	72.52
02.	November	mg / NM ³	73.57
03.	December	mg / NM ³	105.15
04.	January	mg / NM ³	62.05
05.	February	mg / NM ³	76.17
06.	March	mg / NM ³	75.73
Average		mg / NM ³	77.53

STACK ANALYSIS
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Unit # 4

Parameters Measured : Suspended Particulate Matter (SPM)
Unit of Measurement : mg / NM³
Limit : 100.00

Sl. No.	Month / Year	Unit	Results
01.	October	mg / NM ³	72.32
02.	November	mg / NM ³	72.92
03.	December	mg / NM ³	72.46
04.	January	mg / NM ³	38.25
05.	February	mg / NM ³	79.74
06.	March	mg / NM ³	75.92
Average		mg / NM ³	68.60

FUGITIVE EMISSIONS AT COAL HANDLING AREA
(October, 2011 – March, 2012)

Parameters Measured : Suspended Particulate Matter (SPM)

Unit of Measurement : microgram / M³

Limit : 500.00

Sl. No.	Month / Year	Unit	Results
01.	October	microgram / M ³	176.50
02.	November	microgram / M ³	179.30
03.	December	microgram / M ³	188.40
04.	January	microgram / M ³	194.30
05.	February	microgram / M ³	185.30
06.	March	microgram / M ³	184.80
Average		microgram / M ³	184.77

ANNEXURE - 06**EFFLUENT ANALYSIS**
(October, 2011 – March, 2012)

Sl. No	PARAMETERS	OCT-2011	NOV-2011	DEC-2011	JAN-2012	FEB-2012	MAR-2012
1	pH	7.60	7.15	7.85	7.10	7.13	7.02
2	Total Dissolved Solids	233.34	249.12	309.21	282.7	209.5	288.3
3	Total Suspended Solids	24.38	16.25	40.65	16.18	46.24	41.23
4	Chloride as Cl	25.05	22.0	25.22	22.17	24.5	21.03
5	Sulphate as SO ₄	34.42	36.25	42.31	44.36	64.5	32.03
6	C.O.D	11.29	9.63	14.42	12.08	13.15	10.12
7	Total iron as Fe	0.14	0.51	0.26	0.30	0.96	0.57
8	Sulphide as S	0.96	0.83	1.05	0.91	0.65	0.92
9	Oils & Grease	2.40	1.97	2.93	2.11	1.68	1.11
10	Total Chromium as Cr	0.00	0.00	0.00	0.00	0.00	0.00
11	Copper as Cu	0.00	0.00	0.00	0.00	0.00	0.00
12	Cadmium as Cd	0.00	0.00	0.00	0.00	0.00	0.00
13	Zinc as Zn	0.00	0.00	0.00	0.00	0.00	0.00
14	Dissolved Phosphate as PO ₄	0.37	0.37	0.367	0.322	0.81	0.41
15	Free Available Chlorine	0.00	0.00	0.00	0.00	0.00	0.00
16	Nickel as Ni	0.00	0.00	0.00	0.00	0.00	0.00
17	Selenium as Se	0.00	0.00	0.00	0.00	0.00	0.00
18	Boron as B	0.00	0.00	0.00	0.00	0.00	0.00
19	Arsenic as As	0.00	0.00	0.00	0.00	0.00	0.00
20	Mercury as Hg	0.00	0.00	0.00	0.00	0.00	0.00
21	Lead as Pb	0.00	0.00	0.00	0.00	0.00	0.00
22	Cyanides as CN	0.00	0.00	0.00	0.00	0.00	0.00
23	BOD (3 day at 27 Deg. C.)	3.20	2.36	2.13	3.64	2.06	2.77
24	Fluoride as F	1.01	0.96	0.85	0.95	1.02	0.97
25	Ammonical Nitrogen as N	1.05	1.11	0.94	1.07	1.95	1.02

ANNEXURE - 07**AMBIENT AIR MONITORING**
(October, 2011 – March, 2012)**SUSPENDED PARTICULATE MATTER (SPM) :**
Limit : 500.00 microgram / M³

Location	OCT-2011	NOV-2011	DEC-2011	JAN-2012	FEB-2012	MAR-2012
FHP Control Room Top	176.5	179.3	188.4	194.3	185.3	184.8
120° NNE (Near Hindalco Admn. Building)	157.2	161.7	153.4	157.2	155.6	158.3
240° SSE (Rajapada village)	101.2	118.1	120.3	121.2	111.2	115.2
360° W (Hindalco Club)	127.3	138.6	109.6	127.2	135.2	111.8
Jyoti Vihar, Burla	121.3	153.8	140.5	142.4	141.4	141.7
Ash Mound Road	172.6	169.3	178.3	171.3	181.5	177.2
Ash Mound area	172.3	173.4	205.6	173.7	176.3	172.4

SULPHUR DI-OXIDE (SO₂) :
Limit: 120.00 microgram / M³

Location	OCT-2011	NOV-2011	DEC-2011	JAN-2012	FEB-2012	MAR-2012
FHP Control Room Top	8.5	9.0	8.5	9.5	12.5	10.5
120° NNE (Near Hindalco Admn. Building)	8.5	8.5	8.0	9.5	11.0	9.5
240° SSE (Rajapada village)	8.5	8.0	8.0	8.0	11.5	10.5
360° W (Hindalco Club)	8.0	8.5	8.0	8.0	9.5	9.0
Jyoti Vihar, Burla	8.5	9.0	8.0	8.5	10.5	9.5
Ash Mound Road	9.5	9.5	9.0	9.0	12.5	11.5
Ash Mound area	9.0	9.5	8.5	9.0	10.5	11.0

NITROGEN OXIDE (NO_x) :

Limit : 120.00 microgram / M³

Location	OCT-2011	NOV-2011	DEC-2011	JAN-2012	FEB-2012	MAR-2012
FHP Control Room Top	6.0	6.5	5.0	6.0	7.5	9.0
120° NNE (Near Hindalco Admn. Building)	6.0	5.5	6.5	6.5	8.0	8.5
240° SSE (Rajapada village)	5.0	5.0	5.0	5.0	10.5	8.0
360° W (Hindalco Club)	5.0	5.0	4.5	5.5	6.5	7.5
Jyoti Vihar, Burla	6.0	5.5	5.0	5.0	8.5	7.0
Ash Mound Road	6.0	6.0	5.5	5.0	7.5	10.0
Ash Mound area	6.5	6.0	6.0	5.0	6.5	9.0

RESPIRABLE PARTICULATE MATTER (RPM) :

Limit : 150.00 microgram / M³

Location	OCT-2011	NOV-2011	DEC-2011	JAN-2012	FEB-2012	MAR-2012
FHP Control Room Top	57.8	57.2	58.8	59.7	59.4	59.5
120° NNE (Near Hindalco Admn. Building)	51.5	54.3	52.1	50.4	51.2	51.5
240° SSE (Rajapada village)	27.8	32.4	38.2	33.2	36.3	41.4
360° W (Hindalco Club)	36.1	35.2	32.1	37.3	36.2	38.2
Jyoti Vihar, Burla	36.5	42.3	40.6	43.2	49.8	48.3
Ash Mound Road	58.2	54.9	54.8	54.8	58.7	59.1
Ash Mound area	59.4	58.2	59.4	56.8	55.8	57.8

Note: CO, Hydro-Carbon (HC) and Lead in all seven locations found <1000 Microgram / M³, Not Detectable (ND) and Not Detectable (ND) respectively.

ANNEXURE - 08**STATUS OF UTILISATION OF FLY ASH AND BOTTOM ASH FOR THE
YEAR 2011-2012**

Sl.	Description	
1	Quantity of fly ash generated (MT)	933243 MT
2	Quantity of Bottom ash generated (MT)	99390 MT
3	Brick Manufacturing (MT)	12074 MT
4	Supplied to Cement Plants (MT)	352236 MT
5	Land Filling (MT)	4943 MT
6	Utilization in Embankment / Dyke Raising (MT)	NIL
7	Other purposes (MT)	1036937 (Ash Mound Formation)
8	Total Ash Utilized (MT)	369253MT
9	% of utilization	39.57%

ANNEXURE - 09**PLANTATION DETAILS**

YEAR	NO. OF SAPLINGS PLANTED	AREA COVERED (ACRE)	SPECIES PLANTED
Up to 2006-07	419865	250.12	
2007-08	33,000	12.0	Chakunda, Gambhari, Sisam, Krushna Chuda, Radha Chuda, Jammun & Neam
2008-09	25,200	16.0	Chakunda, Gambhari, Sisam, Krushna Chuda, Radha Chuda, Jammun & Neam
2009-10	31,000	10.0	Chakunda, Gambhari, Sisam, Krushna Chuda, Radha Chuda, Jammun & Neam
2010-11	30,000	10.0	Chakunda, Gambhari, Sisam, Krushna Chuda, Radha Chuda, Jammun & Neam
2011-12)	25,200	10.0	Chakunda, Gambhari, Sisam, Krushna Chuda, Radha Chuda, Jammun & Neam
Total (Till-date)	564,265	308.12	

ANNEXURE - 10

ENVIRONMENTAL EXPENDITURE

(April, 2011 – March, 2012)

01.	Ash Disposal	:	Rs.	891.44	lakhs
02.	Operating & Maintenance cost of ESP, Ash Handling Plant including Ash Silo & CHP DES	:	Rs.	35.34	lakhs
03.	Admn. Cost of Environment Dept.	:	Rs.	7.00	lakhs
04.	Envt. Monitoring / Evt. Charges including Environment Management System (ISO :14001)	:	Rs.	10.13	lakhs
05.	Plantation Activities	:	Rs.	5.72	lakhs
06.	Water license to Govt.	:	Rs.	10.53	lakhs
07.	Aesthetics	:	Rs.	191.56	lakhs
08.	Community Development	:	Rs.	105.69	Lakhs
	TOTAL	:	Rs.	1257.41	Lakhs

ANNEXURE - 11

SULPHUR CONTENT IN THE COAL

(October, 2011 – March, 2012)

Sl.No.	Month / Year	Unit	Results
01.	October	%	0.45
02.	November	%	0.46
03.	December	%	0.48
04.	January	%	0.49
05.	February	%	0.49
06.	March	%	0.48
Average		%	0.475

AMBIENT NOISE QUALITY DATA
(October, 2011 – March, 2012)

Sl.	Location	Category	Standard* Day / Night	Distance / Direction wrt Plant	Day Time; dB(A) Leq	Night Time; dB(A) Leq
1.	Plant Gate	Industrial	75/70	Plant Site	58.9	48.9
2.	Hindalco Colony	Residential	55/45	0.6 km / SW	49.8	42.6
3.	Tarasingpara	Residential	55/45	0.5 km / S	58.3	48.6
4.	Christianpara	Residential	55/45	0.7 km / S	64.5	52.7
5.	Alwyn Colony	Residential	55/45	1.3 km / NE	53.7	45.4

* Day Time : 0600 to 2200 Hrs

* Night Time : 2200 to 0600 Hrs.