

JAYPEE HIMACHAL CEMENT PLANT - BAGA (ARKI) SOLAN HP
(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)
AMBIENT AIR QUALITY MONITORING AT PLANT / MINE SITE & AT CORE ZONE
MONTHLY REPORT (April' 2012)

Location 1 :- Hanuman ji Mandir Site

PARTICULARS	PM 2.5	PM 10	SO₂	NO_x	CO
Maximum	29.02	69.12	18.95	2.63	1.85
Minimum	12.04	14.50	13.74	1.14	1.81
Average	20.04	41.27	16.92	2.32	1.40
Standard Deviation	5.34	15.06	0.84	0.28	0.22
Coefficient of Variation	0.267	0.365	0.050	0.119	0.156

All values are in $\mu\text{g}/\text{m}^3$ except CO which is in mg/m^3

Location 2 :- 1370 MSL (Near Main Plant Area; at Panali)

DATE	PM 2.5	PM 10	SO_x	NO_x	CO
02.04.12	17.77	53.32	6	8	118
06.04.12	18.38	55.14	8	10	122
9.04.12	19.10	57.31	10	12	124
13.04.12	20.05	60.15	12	14	121
17.04.12	19.77	59.32	14	11	126
20.04.12	18.75	56.25	7	9	120
24.04.12	19.84	59.52	9	7	122
27.04.12	17.07	51.21	11	13	128
30.04.12	18.11	54.32	13	15	125
Maximum	20.05	60.15	14.00	15.00	128.00
Minimum	17.07	51.21	6.00	7.00	118.00
Average	18.76	56.28	10.00	11.00	122.89
Standard Deviation	1.023	3.070	2.739	2.739	3.140
Coefficient of Variation	0.055	0.055	0.274	0.249	0.026

All values are in $\mu\text{g}/\text{m}^3$

Location 3 :- 1260 MSL (Near Cement Mill Area, at Baga)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	16.74	50.23	10	6	115
06.04.12	17.45	52.36	8	8	120
9.04.12	16.09	48.26	11	10	122
13.04.12	21.80	65.41	13	12	124
17.04.12	17.78	53.34	9	14	118
20.04.12	20.42	61.25	14	11	123
24.04.12	20.07	60.21	12	9	126
27.04.12	18.74	56.23	9	13	121
30.04.12	19.74	59.21	13	15	127
Maximum	21.80	65.41	14.00	15.00	127.00
Minimum	16.09	48.26	8.00	6.00	115.00
Average	18.76	56.28	11.00	10.89	121.78
Standard Deviation	1.889	5.668	2.121	2.934	3.801
Coefficient of Variation	0.101	0.101	0.193	0.269	0.031

All values are in µg/m³

Location 4 :- Challan (Near Bhalag Crusher at Mine area)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	16.71	50.13	7	9	116
06.04.12	18.08	54.23	9	11	118
9.04.12	18.75	56.24	11	13	115
13.04.12	19.77	59.31	13	7	121
17.04.12	17.47	52.41	15	12	125
20.04.12	14.10	42.31	11	8	123
24.04.12	17.11	51.34	10	11	119
27.04.12	19.05	57.16	8	6	116
30.04.12	20.08	60.25	12	14	124
Maximum	20.08	60.25	15.00	14.00	125.00
Minimum	14.10	42.31	7.00	6.00	115.00

Average	17.90	53.71	10.67	10.11	119.67
Standard Deviation	1.836	5.509	2.500	2.759	3.742
Coefficient of Variation	0.103	0.103	0.234	0.273	0.031

All values are in $\mu\text{g}/\text{m}^3$

Location 5 :- Baga (Near worker Mesh, Basant Kunj)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	16.41	49.22	8	10	112
06.04.12	17.45	52.36	10	8	115
9.04.12	20.42	61.25	12	6	118
13.04.12	17.75	53.26	14	9	121
17.04.12	18.37	55.12	11	11	123
20.04.12	15.88	49.23	15	14	125
24.04.12	18.37	55.12	10	12	127
27.04.12	18.77	56.32	9	14	119
30.04.12	17.07	51.22	7	13	116
Maximum	20.42	61.25	15.00	14.00	127.00
Minimum	15.88	49.22	7.00	6.00	112.00
Average	17.83	53.68	10.67	10.78	119.56
Standard Deviation	1.356	3.809	2.646	2.774	4.902
Coefficient of Variation	0.076	0.071	0.248	0.257	0.041

All values are in $\mu\text{g}/\text{m}^3$

Location 6 :- Malothi (Near Fabrication Yard)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	17.74	53.21	7	6	113
06.04.12	16.47	49.41	9	8	118
9.04.12	17.74	53.22	11	10	115
13.04.12	16.42	49.26	13	12	119
17.04.12	18.08	54.25	15	14	121
20.04.12	18.77	56.32	10	11	123
24.04.12	16.09	48.27	8	9	120

27.04.12	20.10	60.31	12	7	124
30.04.12	18.06	54.17	14	13	116
Maximum	20.10	60.31	15.00	14.00	124.00
Minimum	16.09	48.27	7.00	6.00	113.00
Average	17.72	53.16	11.00	10.00	118.78
Standard Deviation	1.272	3.816	2.739	2.739	3.667
Coefficient of Variation	0.072	0.072	0.249	0.274	0.031

All values are in $\mu\text{g}/\text{m}^3$

Location 7 :- Nerri- Jajjar (Near Township at Dhartatoh)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	17.40	52.19	7	6	118
06.04.12	18.39	55.16	9	8	115
9.04.12	17.42	52.25	11	10	113
13.04.12	19.09	57.28	13	12	121
17.04.12	20.10	60.31	15	14	123
20.04.12	18.39	55.16	11	11	119
24.04.12	17.72	53.15	8	13	116
27.04.12	16.44	49.32	10	7	124
30.04.12	17.73	53.18	12	10	126
Maximum	20.10	60.31	15.00	14.00	126.00
Minimum	16.44	49.32	7.00	6.00	113.00
Average	18.07	54.22	10.67	10.11	119.44
Standard Deviation	1.070	3.210	2.500	2.713	4.391
Coefficient of Variation	0.059	0.059	0.234	0.268	0.037

All values are in $\mu\text{g}/\text{m}^3$

Location 8 :- Kandhar (Near Prposed ITI)

DATE	PM 2.5	PM 10	SOx	NOx	CO
02.04.12	16.13	48.39	6	8	116
06.04.12	18.11	54.32	8	10	120
9.04.12	19.77	59.32	10	13	114

13.04.12	17.04	51.12	12	7	118
17.04.12	16.06	48.18	14	9	121
20.04.12	17.39	52.16	11	12	123
24.04.12	18.44	55.32	8	11	125
27.04.12	19.75	59.24	15	13	128
30.04.12	18.84	56.53	13	9	121
Maximum	19.77	59.32	15.00	13.00	128.00
Minimum	16.06	48.18	6.00	7.00	114.00
Average	17.95	53.84	10.78	10.22	120.67
Standard Deviation	1.398	4.195	3.032	2.167	4.359
Coefficient of Variation	0.078	0.078	0.281	0.212	0.036

All values are in $\mu\text{g}/\text{m}^3$

Monitoring of Ambient Air Quality Parameters (As, Ni & Pb) at Plant / Mine Site & at Core Zone during April '2012

Sampling Location	Date of Sampling	As (ng/m^3)	Ni (ng/m^3)	Pb ($\mu\text{g}/\text{m}^3$)
Panali (near Main Plant Area; 1370 MSL)	06/04/2012	ND	ND	0.004
Challan (near Bhalag Crusher at Mine Site)	12/04/2012	ND	ND	0.002
Sehnali at the Boundary of Plant Area	23/04/2012	ND	ND	0.016
1260 MSL (near Cement Mill Area at Baga)	01/04/2012	ND	ND	ND
Near worker Mess, Basant Kunj	18/04/2012	ND	ND	0.0002
Neri-Jajjar (near Township at Dhar-Tatoh)	27/04/2012	ND	ND	0.020
NAAQ Limits		06	20	1.0