

Job No.750001

# Annual Environmental Monitoring Report of Ib Valley Coalfields For

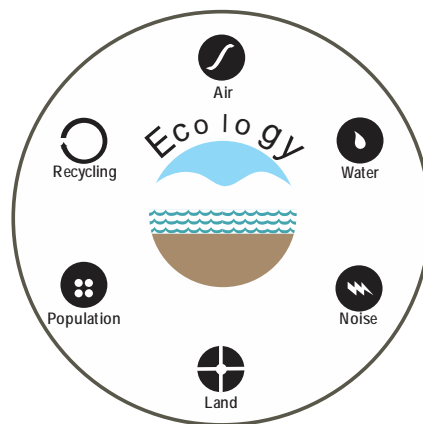
2014-15



**Mahanadi Coalfields Limited**

*(A Subsidiary of Coal India Ltd.)*

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*cmpdi*  
*A Mini Ratna Company*

**Central Mine Planning & Design Institute Ltd.**

*(A Subsidiary of Coal India Ltd.)*

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[ Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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## **IB VALLEY COALFIELD**

Ib-valley coalfield is located between latitudes 21°31' & 22°14'N and longitudes 83°32' & 84°10'E within the districts of Sundergarh, Jharsuguda and Sambalpur of Orissa state and covers an area of about 1460 Sq. Kms.

The coalfield is named after the river Ib, a tributary of river Mahanadi, which passes through the eastern fringe of the coalfield.

The Ib Valley coalfield forms a half elliptical basin. It is closed towards southeast and open towards north-west. The basin has normal contact with the metamorphics in the north-western, northern, north-eastern, eastern and southeastern part. It has a faulted contact with the metamorphics in the south-western boundary where younger formations viz. Raniganj and Barren Measure occur in juxtaposition with the metamorphic. The coalfield is contiguous to Mand-Raigarh coalfield of Chhatisgarh. The boundary between Mand-Raigarh and Ib Valley coalfield is administrative boundary of Orissa and Chhatisgarh states.

Barakar and Karharbari are the two potential coal bearing formations in Ib Valley coalfield, Barakar formation is the store house of majority of coal seams. The potential coal bearing area (excluding Kamthis, non coal bearing Lower Karharbari Formation) of the coalfield is about 300 sq. km stretching along the south, east and northern periphery of the coalfield.

The coal seams have been explored in detail along the southern part of the coalfield as well as the eastern part and to a great extent in the northern periphery of the basin. Thus occurrence of coal seams in this part of the coalfield is well established.

## **HISTORY OF EXPLORATION**

This coalfield was discovered in the later half of the 19th century and was explored in 1871-75 by V.Baul of Geological Survey of India. Some work was also carried out by W.King during 1884-86.

Systematic geological mapping was carried out during 1954-55 by S/S D.R.S. Mehta & Anandalwar. S/S B.C.Pande and S.N.Chakravorty were involved in 1961-63 for detailed mapping of southern part of the coalfield.

The dip side area in the existing Rampur colliery was undertaken for field exploration to establish various parameters of coal seams/sections by the Deptt. of Mining & Geology, Govt. of Orissa at the instance of CMPDI in December, 1977.

While proving Rampur and Ib horizons the overlying Lajkura horizon was intersected in certain boreholes in the Rampur lease hold area. The exploration thereafter was intensified in the south eastern part of the coalfield (i.e Rampur tract).

However, in the west-central & north-western part (i.e Hingir and Gopalpur tract) regional exploration by GSI was started in 1980. Subsequently detailed exploration in Gopalpur tract was commenced in 1984 and is continuing at present.

Geological blocks like Basundhara, Kulda, Garjanbahal, Chaturdhara, Manoharpur, Meenaskhi, Siarmal and Siarmal extension have been explored in detail and geological reports have been formulated. Detailed exploration in Siarmal west extension ( Banapatra) has been completed and GR is under preparation. In Rampia geological block, scout drilling has been done to ascertain occurrence of coal and economic viability. Jamkani geological blocks has also been explored by MECL. Now detailed exploration in dip side of Kulda/ Garjanbahal and Prajapada block ( dip side of Siarmal and Siarmal west extrn. block) is under progress by CMPDI. Similarly, Madhupur block is under exploration by DG(O).

## **HISTORY OF COAL MINING**

The first underground mine (Hingir-Rampur Colliery) was started in 1909 by M/S. Hingir Rampur Coal Co. Ltd. on the southern side of main Howrah-Mumbai railway line. In 1940 M/S. Raisaheb Chandanmull Indra Kumar Pvt. Ltd. opened Ib River

Colliery (Orient mine no.1). Subsequently Orient mine no.2 was started in 1954 by M/s. Birla Brothers Ltd. Workings in Ib seam in Orient lease-hold was started in 1962 in the present area of Orient mine no.4 which was discontinued after some time. Orient mine no.3 in Lajkura coal horizon was started in 1968. Workings in Orient mine no.4 in Rampur horizon was started in 1975. Hirakhand Bundia incline was started in 1980 and commenced coal production from 1982.

Subsequent to detailed exploration by Directorate of Mining & Geology, Govt. of Orissa, Lajkura OC (1.0 Mty) and Belpahar OC (2.0 Mty) were started in 1983. Lajkura OC is working Lajkura seam in the Orient leasehold area. Belpahar OC is working Ib & Rampur horizons in geological blocks Belpahar-I & II.

Lilari OC (0.8 Mty) was planned and sanctioned by SECL to work Lajkura seam in a part of Belpahar geological block-III, to the northern side of Lilari nallah, a tributary of Ib river. Subsequent to exploration on the dip side of Rampur block, Samaleswari OC (3 Mty) was planned which came into operation w.e.f. 1989. Lakhanpur OC (5 Mty) came into operation in 1993 to exploit Lajkura seam to the southern side of Lilari nallah in geological block Belpahar-III.

Gopalpur Tract was a Greenfield area till 1996. After formation of MCL and on the basis of detailed exploration, different mines were planned in the Gopalpur Tract as under :

1. Basundhara (East) OCP – 0.60 Mty          June'89
2. Basundhara (W) OCP- 2.40 Mty/ 7.0 Mty Nov.'89
3. Kulda OCP      -10.0 Mty      March'95
4. Garjanbahal OCP – 10.0 Mty                          March'98
5. Siarmal OCP- 15.0 Mty                          March2008 (under revision for higher capacity)

Basundhara (E) OCP was opened in 1996-97 and exhausted in 2005-06.

Basundhara (W) OCP, 2.40 Mty was sanctioned in 2003 and is a running project.

Kulda OCP was sanctioned in 2005 and is in operation.

Advance action proposal of Garjanbahal OCP has been sanctioned by Govt. and is under implementation. PR of Chaturdhara OCP (4.0 Mty) was formulated in Nov. 1989 which was shelved and now proposed to be taken up again during XII Plan subject to its retention by CIL. PR of Siarmal OCP (15.0 Mty) was formulated in March 2008, which is being revised for higher capacity by annexing western extension of Siarmal block ( i.e Banapatra block).

## **LOCATION**

Ib-valley coalfield is a part of large synclinal Gondwana basin of RaigarhHimgir and Chhattisgarh coalfields and constitutes the south-eastern extension of the Sone-Mahanadi master basin bounded by latitudes : 21o30'00" to 22o06'00" N and longitudes: 83o32'00" to 84o10'00"E (Ref. plate-I).

It is situated in the districts of Sambalpur, Jharsuguda and Sundargarh within the state of Orissa. Major part of the coalfield, including the present coal mining belt, falls in Jharsuguda district. The almost virgin Gopalpur tract in north and north west lies in Sundargarh district.

The headquarters of Mahanadi Coalfields Limited is located at Burla near Sambalpur town, Orissa.

## **COMMUNICATION**

The south-eastern part of the coalfield (i.e. Rampur tract) where all the present coal mining activities are confined is situated alongside the main Howrah-Mumbai railway line of SEC Railways. The nearest rail head on this railway line is Brajrajnagar, which is situated at the focal point of the operative mines. The district headquarters township of Jharsuguda is about 14 kms away from the coalfield and is also connected by road.

The central and north-western part (i.e. Gopalpur tract) is communicable by a metalled road connecting Sundergarh of Orissa with Raigarh in Chhattisgarh. The distance

from Sundargarh is about 42 km. The nearest railhead is Himgir, about 30 to 35 km connected by metalled road.

A railway line connecting Talcher with Sambalpur/Jharsuguda has been constructed and commissioned in Aug.'1998.

## **TOPOGRAPHY AND DRAINAGE**

The coalfield has been divided in three sectors.

- south eastern part (Rampur tract) -  
northwestern part (Gopalpur tract)
- west central part.

The coalfield area is represented by low irregular upland of undulating topography and broadly can be divided into three different units :

- i) Rugged topography - represented by hard metamorphic rocks all along the boundaries of the coalfield in the north, east and south.
- ii) Low irregular plain country of rolling topography - represented by the rocks of Barakar formations.
- iii) Hilly rough terrain - represented by the rocks of Kamthi formation including Barren measures and Raniganj formations.

The altitude of the coalfield varies widely from less than 200m to more than 600m above MSL (mean sea level). The general altitude however, varies between 200m and 350m. A series of low parallel ridges of sandstone interspaced with valleys of shales & coal seams are the characteristics of coal bearing Barakar formations.

The drainage system of the coalfield is controlled by Ib river, a tributary of river Mahanadi. Ib river flows from north to south and discharges in Hirakud reservoir in the south-eastern fringe of the coalfield beyond the mining areas. The Bhedan river,

Lilari, Basundhara, Lamtibahal, Chelduthi and Chaturdhara nallas discharge into the river Ib and provide drainage system within the coalfield.

## CLIMATE AND RAINFALL

The area experiences typical warm to hot tropical climate with temperature varying from 9oC to 49oC. Average humidity varies from 26% to 83%. Generally the humidity is highest in August and least in March. Annual mean wind velocity is 7 Km/hr. with maximum speed of more than 20 Km/hr.

Average rainfall per annum is 1200 mm. Maximum rainfall during a year is 2200 mm and minimum is 700 mm as per the records available.

## Environmental Quality Monitoring Stations

The details of various environmental quality monitoring stations

<b>Air Monitoring Stations of IB Valley CF (2014-15)(SPM,RPM,PM2.5,Nox,Sox)</b>		
Name of the Area	Name of the Project	Air Monitoring Station
Ib Valley	Samleswari OCP	Roof of New Project Office
		Kudopali Village
		Lajkura Village
		Near Chingriguda village
		Inside Sainik mining camp premises
		Near re-joice club in Hilltop Colony
	Lajkura OCP	Near Project Office
		Lajkura Store
		Near Adarsh Nagar Colony
		Near Chingriguda village
Lakhanpur	Lilari OCP	Near Magazine House
		Near Lilari pump house
		Near Old Coal Stock yard
	Lakhanpur OCP	Near OB Dump No.1
		NCC camp
		Quarry 4 sub station

		Ubuda Village
		Tingismal Village
	Belpahar OCP	Near M.D.T.P
		Bandhabahal Township/BIT
		Quarry No.3 junction (Tiffin Point)
		Near Quarry No.5
Basundhara	Kulda OCP	Barpali Village
		Karlikachhar Village
		Tikilipada Village
		Siarmal Village
		Near Kulda P.O.
		Near CHP
		Near a crusher
	Basundhara OCP	Serdega Village
		Excavation Work-shop
	Orient	Orient
Orient Mine No.3		
Orient Mine No.4		
HBI Mine		
Near Adarsh Nagar Colony		
HRC Mine		
Rampur Colony		

<b>Noise Monitoring Stations of IB Valley CF (2014-15)(SPM,RPM,PM2.5,NOx,SOx)</b>		
Name of the Area	Name of the Project	Air Monitoring Station
Ib Valley	Samleswari OCP	Roof of New Project Office
		Kudopali Village
		Lajkura Village
		Near Chingriguda village
		Inside Sainik mining camp premises
		Near re-joice club in Hilltop Colony
		Lajkura OCP
	Lajkura Store	
	Near Adarsh Nagar Colony	

Lakhanpur	Lilari OCP	Near Magazine House
		Near Lilari pump house
		Near Old Coal Stock yard
	Lakhanpur OCP	Near OB Dump No.1
		NCC camp
		Quarry 4 sub station
		Ubuda Village
	Belpahar OCP	Near M.D.T.P
		Bandhabahal Township/BIT
		Quarry No.3 junction (Tiffin Point)
		Near Quarry No.5
	Basundhara	Kulda OCP
Karlikachhar Village		
Basundhara OCP		Serdega Village
		Excavation Work-shop
Orient	Orient	Orient Mine No.2
		Orient Mine No.3
		Orient Mine No.4
		HBI Mine
		Near Adarsh Nagar Colony
		HRC Mine
		Rampur Colony

<b>DRINKING WATER SAMPLING STATIONS FOR APRIL'14-MARCH'15</b>			
<b>S.NO</b>	<b>Area</b>	<b>OCP</b>	<b>NAME OF STATIONS</b>
1	Ib-Valley	Samaleswari OCP	Water from intake (raw water) at IWSS
2			Treated water from IWSS
3			Chingriguda Village well water
4			Kudopali village well water
5			Lajkura village well water
6			Anapali village well water
7			Samleshwari Colony tap water
8		Lajkura OCP	Madhuban nagar well water

9			Treated water at user end(Adarsh nagar colony)	
10			Raw water of mine no.2	
11			Chhauliberna village well water	
12	Lakhanpur	Liliari OCP	Jurabaga village well water	
13		Lakhanpur OCP	Ubuda village tubewell water	
15			BandhBahal canteen tap water	
16			LKP canteen tap water	
17		Belpahar OCP	Belphar Colony tap water	
18			Excavation workshop tap water	
19			CHP tap water	
20			Intake water of IWSS( half yearly)	
21			Darlipali village well water	
22			Belpahar Integrated township Mausimaa mandir outlet	
23			Belpahar Integrated townshipIndradhanush club outlet	
24		Basundhara	Kulda OCP	Well at Balinga
26			Basundhara OCP	Basundhra colony tap water
27				Treated water of treatment plant, Basundhra
28				Water at intake well basundhra nulla(half yearly)
29	Orient	Orient area	Tap water at Budhijaam colony	
30			Tap water at Rampur colony	
31	MCL(HQ)	MCL(HQ)	Inlet to water treatment plant(anand vihar)	
32			Outlet of water treatment plant(anand vihar)	
33			Tap water D.A.V school( anand vihar)	
34			Tap water at corporate office ( jagriti vihar)	

<b>EFFLUENT (4P) SAMPLING STATIONS FOR APRIL'14-MARCH'15 (Ph,COD,TSS,O&amp;G)</b>			
<b>S.N O</b>			<b>NAME OF STATIONS</b>
1	IB-valley	Samaleswari OCP	Outlet from sedimentation tank
2			Oil & Grease trap Outlet
3		Lajkura OCP	Outlet of sedimentation tank (MDTP)
4			Oil & Grease trap Outlet
5			Central hospital
6	Lakhanp ur	Liliari OCP	Oil & Grease trap Outlet
7		Lakhanpur OCP	Outlet of sedimentation Pond
8			Oil & Grease trap no 1 Outlet
9			Oil & Grease trap no 2 outlet
10		Belpahar OCP	Outlet of sedimentation Pond
11			Oil & Grease trap Outlet
12	Basundh ara	Kulda OCP	Final discharge point of mine
13			Inlet to settling pond
14			Outlet of settling pond
15		Basundhara OCP	Outlet from settling pond near Kanika Rly Siding
16	Settling tank/abandoned quarry of Basundhara E		
17			Oil & Grease trap Outlet
18	Orient	Orient area	Mine discharge of Mine-2
19			Mine discharge of Mine-3
20			Mine discharge of Mine-4
21			Mine Discharge of HBI
22			Mine discharge of HRC

**EFFLUENT (3P) SAMPLING STATIONS FOR APRIL'14-  
MARCH'15 (Ph, BOD,TSS)**

S.NO	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari OCP	DETP/STP outlet
2	Lakhanpur	Lakhanpur OCP	DETP/STP outlet

**EFFLUENT (1P) SAMPLING STATIONS FOR APRIL'14-  
MARCH'15(Ph)**

S.NO	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari OCP	Mine sump water
2		Lajkura OCP	Mine sump water
3	Lakhanpur	Liliari OCP	Mine sump water
4		Lakhanpur OCP	Mine sump water
5		Belpahar OCP	Mine sump water

**Frequency of Environmental Monitoring**

(i) **Ambient air quality monitoring**

To assess the pollution level in ambient air of the area located in and around the coal mines/projects and also determine the efficacy of mitigation measures, regular monitoring of the following parameters is being carried out.

Respirable particulate matter (RPM)  
:

Suspended particulate matter (SPM) :

Sulphur dioxide (SO<sub>2</sub>) : Nitrogen oxides

(NO<sub>x</sub>) : (ii) Drinking water

monitoring : Once in every month.

One sample per  
fortnight

(iii) **Effluent quality monitoring**

5 parameters and 4 parameters : Once in a fortnight

1 parameter : once in every Month.

21 parameters : Once in a year

(iv) Well water level monitoring : Quarterly

(v) Noise level monitoring : Once in a fortnight

**Methodology and Instruments used for Air Quality Analysis**

These are given in below Table

**Table  
Methodology and Instruments used for Air Quality Analysis**

Sl.No.	Parameters	Method	Instruments
1	SPM and RPM	IS:5182 (Part-IV) (Gravimetric method)	High volume samplers, Respirable dust samplers & electronic balance, oven, etc.
2	SO <sub>2</sub>	IS:5182 (Part-II) (Sodium tetrachloro-mercurate method, also known as improved West and Gaeke Method) (Photometric method)	Milton-Roy Spectrophotometer.
3	NO <sub>X</sub>	IS:5182 (Part-VI) (Jacob & Hoccheiser Modified Method) (Photometric method)	-do-

## Methodology and Instruments used for water & effluent analysis

Details are given in below Table.

**Table**

### Methodology & Instruments used for Water and Effluent Analysis

Sl.No.	Parameters	Method/Instruments
1	PH	Electrometric/pH meter
2	Turbidity	Nephelometric/Nepheloturbidity meter
3	Total suspended solids, total dissolved solids, oil & grease and mineral oil	Gravimetric/oven, electronic balance
4	BOD	BOD test and titration/BOD incubator, pipette, burette, etc.
5	COD	Reactor digestion and titration/reactor digester
6	Coliform	MPN test/LTEK MPN kit.
7	Calcium, chloride, hardness, alkalinity	Titrimetric/pipette, burette, etc.
8	Cadmium, copper, iron, lead, manganese, mercury, nickel, total chromium & zinc	Selective absorption/atomic absorption spectro-photometer.
9	Ammonical nitrogen, arsenic, colour, dissolved phosphate, fluoride, hexavalent chromium, nitrate nitrogen phenolics, selenium, sulphate, sulphide, total residual chlorine, total Kjeldahl nitrogen & boron.	Photometric/DR 2000

## Methodology and Instruments used for Noise Level Measurement

Noise is measured in a weighted sound level i.e. dB(A) using a noise level meter once in day time (6:00 AM-10:00 PM) and once in night time (10:00 PM to 6:00 AM) for one day in each quarter from each station.

**Table : 1 Air Quality Data**
**Project : Samleswari OCP**
**Monitoring Station : Roof of New Project Office**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
25-Apr-14	304	126	20	25	67	East to west hot & sunny
13-May-14	326	168	22	26	65	West to east hot & sunny
28-May-14	237	68	16	19	55	East to west hot & sunny
10-Jun-14	220	137	18	21	37	West to east hot & sunny
24-Jun-14	198	92	16	19	64	West to east cloudy & rain fall
09-Jul-14	191	81	14	17	38	East to west Cloudy & sunny
28-Jul-14	183	81	14	17	32	East to west Cloudy & evening rain fall
08-Aug-14	134	81	14	18	37	East to west Cloudy & evening rain fall
22-Aug-14	164	92	15	18	30	East to west Cloudy & evening rain fall
08-Sep-14	90	36	12	15	19	West to east cloudy & sunny evening rain fall
22-Sep-14	101	42	14	17	25	West to east cloudy & sunny evening rain fall
09-Oct-14	239	132	16	19	49	East to west & sunny
24-Oct-14	276	101	15	19	55	East to west sunny & cloudy
07-Nov-14	247	130	16	19	47	East to west & cloudy
22-Nov-14	289	132	15	19	55	West to east & sunny
08-Dec-14	289	128	16	19	51	East to west & sunny
23-Dec-14	231	91	14	17	45	East to west & sunny
12-Jan-15	261	117	15	18	37	West to east & sunny
28-Jan-15	241	100	14	17	48	West to east & sunny
11-Feb-15	263	120	15	18	53	West to east sunny & Cloudy Evening Rainfall
25-Feb-15	347	151	16	21	62	West to east & sunny
13-Mar-15	372	163	18	22	55	West to east & sunny
27-Mar-15	385	172	20	23	63	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	385	172	22	26	67	
<b>Minimum</b>	90	36	12	15	19	
<b>Average</b>	242.96	110.48	15.87	19.26	47.35	
<b>95 Percentile</b>	369.5	167.5	20	24.8	64.9	
<b>98 Percentile</b>	379.28	170.24	21.12	25.56	66.12	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

*All values are in µg/m<sup>3</sup>*

## Table : 2 Air Quality Data

**Project : Samleswari OCP**

**Monitoring Station : Near Old Sedimentation Tank**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
11-Apr-14	340	139	23	28	40	West to east hot & sunny
25-Apr-14	328	131	22	26	62	East to west hot & sunny
13-May-14	339	143	24	27	49	West to east hot & sunny
27-May-14	260	116	18	21	45	West to east cloudy & heavy rain fall
10-Jun-14	293	124	17	22	61	West to east hot & sunny
24-Jun-14	256	102	16	20	39	East to west hot & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	340	143	24	28	62	
<b>Minimum</b>	256	102	16	20	39	
<b>Average</b>	302.67	125.83	20.00	24.00	49.33	
<b>95 Percentile</b>	339.75	142	23.75	27.75	61.75	
<b>98 Percentile</b>	339.9	142.6	23.9	27.9	61.9	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 3 Air Quality Data**
**Project : Samleswari OCP**
**Monitoring Station : Kudopali Village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	Nox	PM 2.5	Remarks
12-Apr-14	189	88	17	21	27	East to west hot & sunny
29-Apr-14	164	74	16	19	25	East to west hot & sunny
14-May-14	168	71	15	19	41	East to west hot & sunny
29-May-14	141	81	14	18	53	West to east cloudy & heavy rain fall
11-Jun-14	165	89	16	19	41	East to west hot & sunny
25-Jun-14	140	59	13	16	60	East to west cloudy & evening rain fall
10-Jul-14	122	54	12	15	21	East to west cloudy & evening rain fall
28-Jul-14	127	38	12	15	57	East to west cloudy & evening rain fall
08-Aug-14	110	74	13	16	40	East to west cloudy & evening rain fall
22-Aug-14	73	37	12	15	22	East to west cloudy & evening rain fall
08-Sep-14	102	40	13	16	24	West to east cloudy & sunny evening rain fall
22-Sep-14	97	38	14	15	26	West to east cloudy & sunny evening rain fall
10-Oct-14	159	89	14	17	41	West to east sunny & cloudy
24-Oct-14	164	82	13	16	44	West to east & sunny
10-Nov-14	191	90	13	16	45	West to east sunny & cloudy
24-Nov-14	193	96	14	18	40	East to west & sunny
09-Dec-14	180	87	11	14	37	West to east & sunny
24-Dec-14	172	80	13	16	34	West to east & sunny
12-Jan-15	163	79	12	15	32	West to east & sunny
28-Jan-15	174	83	12	16	33	West to east & sunny
11-Feb-15	192	94	14	17	49	West to east sunny & Cloudy Evening Rainfall
25-Feb-15	208	99	13	22	51	West to east & sunny
13-Mar-15	243	119	14	18	53	West to east & sunny
27-Mar-15	223	91	14	17	46	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	243	119	17	22	60	
<b>Minimum</b>	73	37	11	14	21	
<b>Average</b>	160.83	76.33	13.5	16.92	39.25	
<b>95 Percentile</b>	220.75	98.55	16	20.7	56.4	
<b>98 Percentile</b>	233.8	109.8	16.54	21.54	58.62	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

### Table : 4 Air Quality Data

**Project : Samleswari OCP**

**Monitoring Station : West of Working Mine**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
11-Apr-14	341	137	22	27	55	West to east hot & sunny
25-Apr-14	352	147	24	28	62	East to west hot & sunny
12-May-14	315	135	23	27	70	East to west hot & sunny
27-May-14	304	127	20	23	65	East to west hot & sunny
10-Jun-14	217	102	14	18	54	West to east hot & sunny
24-Jun-14	210	105	17	20	69	West to east cloudy & rain fall
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
Maximum	352	147	24	28	70	
Minimum	210	102	14	18	54	
Average	289.83	125.5	20	23.83	62.5	
95 percentile	349.25	144.5	23.75	27.75	69.75	
98 percentile	350.9	146	23.9	27.9	69.9	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 5 Air Quality Data**

**Project : Samleswari OCP**

**Monitoring Station : Lajkura Village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
09-Jul-14	134	58	14	17	20	West to east cloudy & Sunny
25-Jul-14	114	45	13	16	35	West to east cloudy & evening rain fall.
08-Aug-14	99	48	13	17	48	East to west Cloudy & evening rain fall
22-Aug-14	104	55	14	18	22	East to west Cloudy & evening rain fall
09-Sep-14	81	34	14	17	23	East to west cloudy & sunny evening rain fall
23-Sep-14	88	36	15	18	31	East to west cloudy & sunny evening rain fall
09-Oct-14	174	81	15	18	42	East to west & sunny
24-Oct-14	170	84	12	16	40	West to east & sunny
07-Nov-14	195	97	12	16	34	East to west & cloudy
22-Nov-14	198	101	15	19	44	West to east & sunny
05-Dec-14	165	81	12	15	40	West to east & sunny
22-Dec-14	185	71	12	15	42	East to west & sunny
13-Jan-15	174	81	13	16	45	East to west sunny & cloudy
29-Jan-15	190	93	14	17	37	East to west & sunny
12-Feb-15	214	98	15	18	47	East to west Cloudy & Rainfall
26-Feb-15	218	103	14	18	50	East to west & Sunny
14-Mar-15	250	118	14	17	30	East to west & Sunny
30-Mar-15	241	103	13	17	43	East to west & Sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	250	118	15	19	50	
<b>Minimum</b>	88	36	12	15	30	
<b>Average</b>	189.38	88.23	13.54	16.92	40.38	
<b>95 Percentile</b>	244.6	109	15	18.4	48.2	
<b>98 Percentile</b>	247.84	114.4	15	18.76	49.28	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 6 Air Quality Data**

**Project : Samleswari OCP**

**Monitoring Station : Inside Sainik Mining Camp**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
11-Jul-14	137	69	13	17	35	West to east & cloudy
28-Jul-14	124	63	13	17	38	East to west Cloudy & evening rain fall
09-Aug-14	84	38	12	15	42	West to east cloudy & evening rain fall
22-Aug-14	94	47	13	17	37	East to west cloudy & evening rain fall
08-Sep-14	89	38	13	16	31	West to east cloudy & sunny evening rain fall
22-Sep-14	92	41	16	17	29	West to east cloudy & sunny evening rain fall
10-Oct-14	238	115	15	19	51	West to east sunny & cloudy
24-Oct-14	258	135	16	19	43	West to east & sunny
10-Nov-14	274	140	15	19	64	West to east sunny & cloudy
24-Nov-14	320	139	17	21	60	East to west & sunny
09-Dec-14	302	133	16	19	61	West to east & sunny
24-Dec-14	310	125	15	18	65	West to east & sunny
12-Jan-15	328	129	15	19	61	West to east & sunny
28-Jan-15	340	135	16	20	60	West to east & sunny
11-Feb-15	205	129	13	17	47	West to east sunny & Cloudy Evening Rainfall
25-Feb-15	240	118	14	17	43	West to east & sunny
13-Mar-15	241	120	15	19	48	West to east & sunny
27-Mar-15	274	128	16	20	53	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	340	140	17	21	65	
<b>Minimum</b>	124	63	13	17	35	
<b>Average</b>	257.92	119	14.83	18.58	52.92	
<b>95 Percentile</b>	333.4	139.45	16.45	20.45	64.45	
<b>98 Percentile</b>	337.36	139.78	16.78	20.78	64.78	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

### Table : 7 Air Quality Data

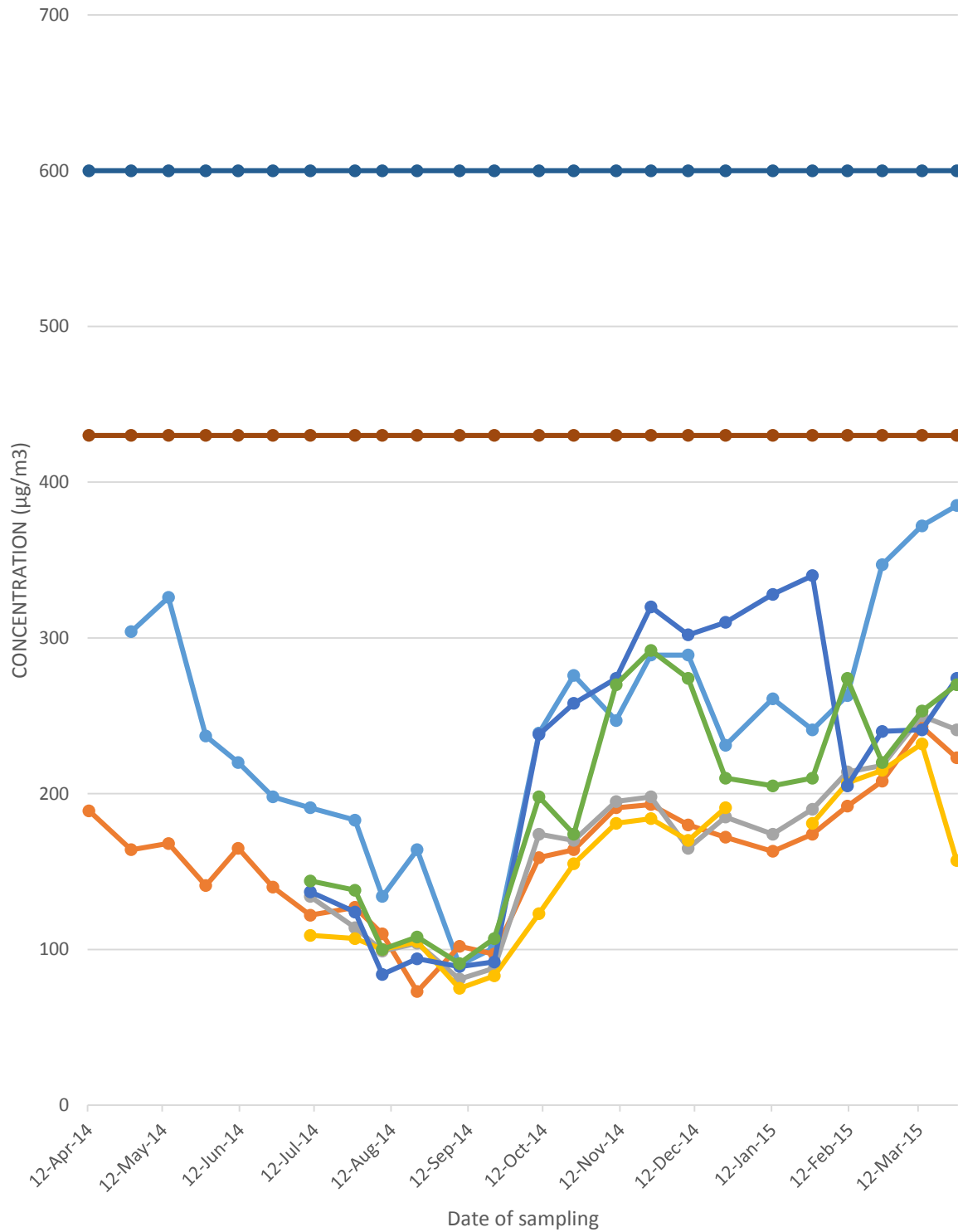
#### Project : Samleswari OCP

#### Monitoring Station : Near Re-joice Club in Hilltop

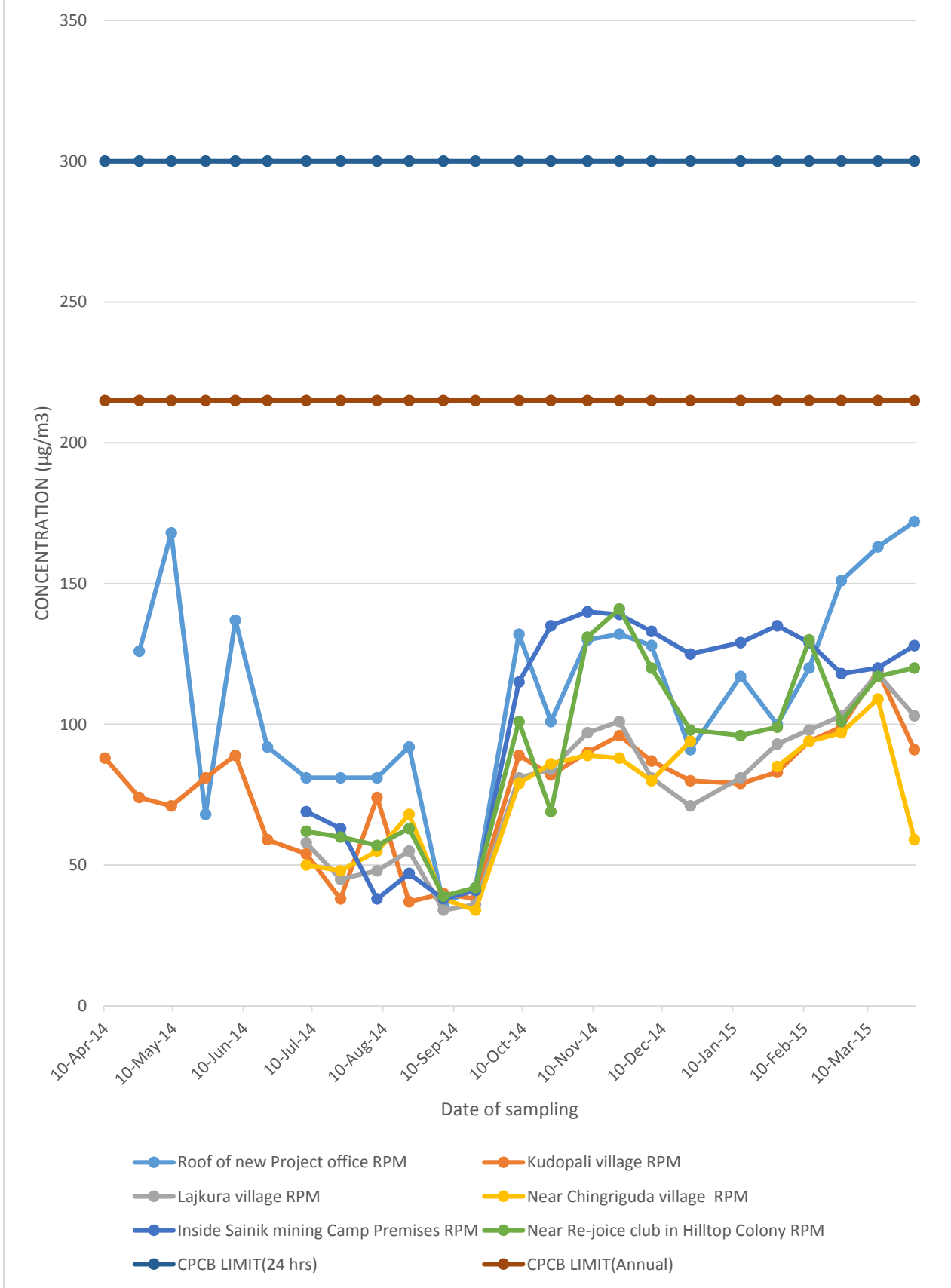
Date of Sampling	SPM	RPM	SO2	NOx	PM 2.5	Remarks
10-Jul-14	144	62	12	16	32	East to west cloudy & evening rain fall
28-Jul-14	138	60	13	16	45	East to west cloudy & evening rain fall
08-Aug-14	100	57	13	16	44	East to west cloudy & evening rain fall
22-Aug-14	108	63	12	16	41	East to west cloudy & evening rain fall
08-Sep-14	91	39	12	15	29	East to west cloudy & sunny evening rain fall
22-Sep-14	107	42	13	17	27	East to west cloudy & sunny evening rain fall
09-Oct-14	198	101	14	18	50	East to west & sunny
24-Oct-14	174	69	13	16	42	East to west sunny & cloudy
07-Nov-14	270	131	14	18	62	East to west & cloudy
22-Nov-14	292	141	16	20	60	West to east & sunny
08-Dec-14	274	120	15	18	64	East to west & sunny
23-Dec-14	210	98	14	18	52	East to west & sunny
12-Jan-15	205	96	14	17	47	West to east & sunny
28-Jan-15	210	99	13	17	23	West to east & sunny
11-Feb-15	274	130	15	19	55	West to east sunny & Cloudy Evening Rainfall
25-Feb-15	220	101	13	19	49	West to east & sunny
13-Mar-15	253	117	16	19	58	West to east & sunny
27-Mar-15	270	120	15	19	49	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM2.5</b>	
Maximum	292	141	16	20	64	
Minimum	138	60	12	16	23	
Average	230	106.25	14.17	18	49.67	
95 Percentile	282.1	135.5	16	19.45	62.9	
98 Percentile	288.04	138.8	16	19.78	63.56	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

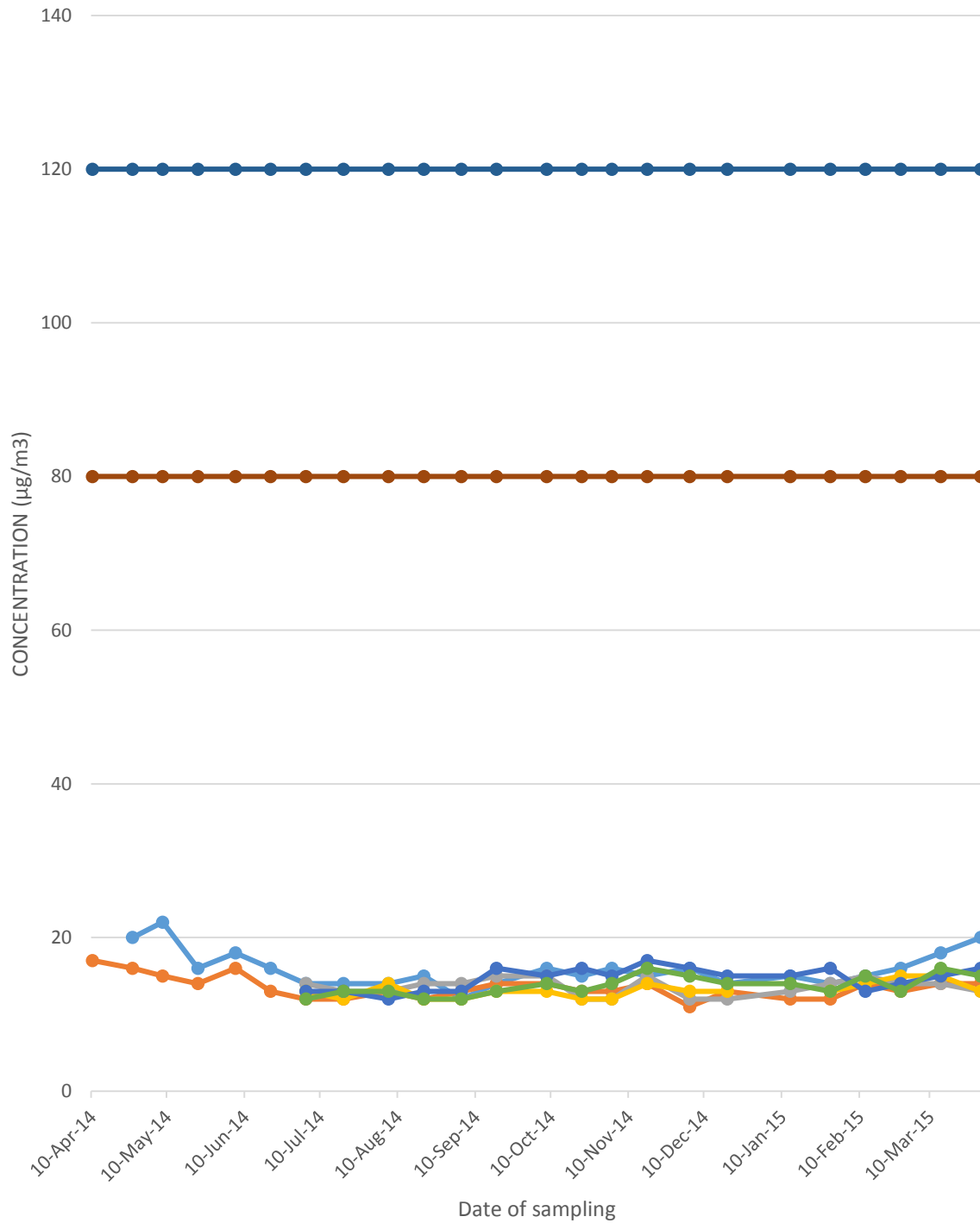
Graph Showing for SPM of Samleswari OCP



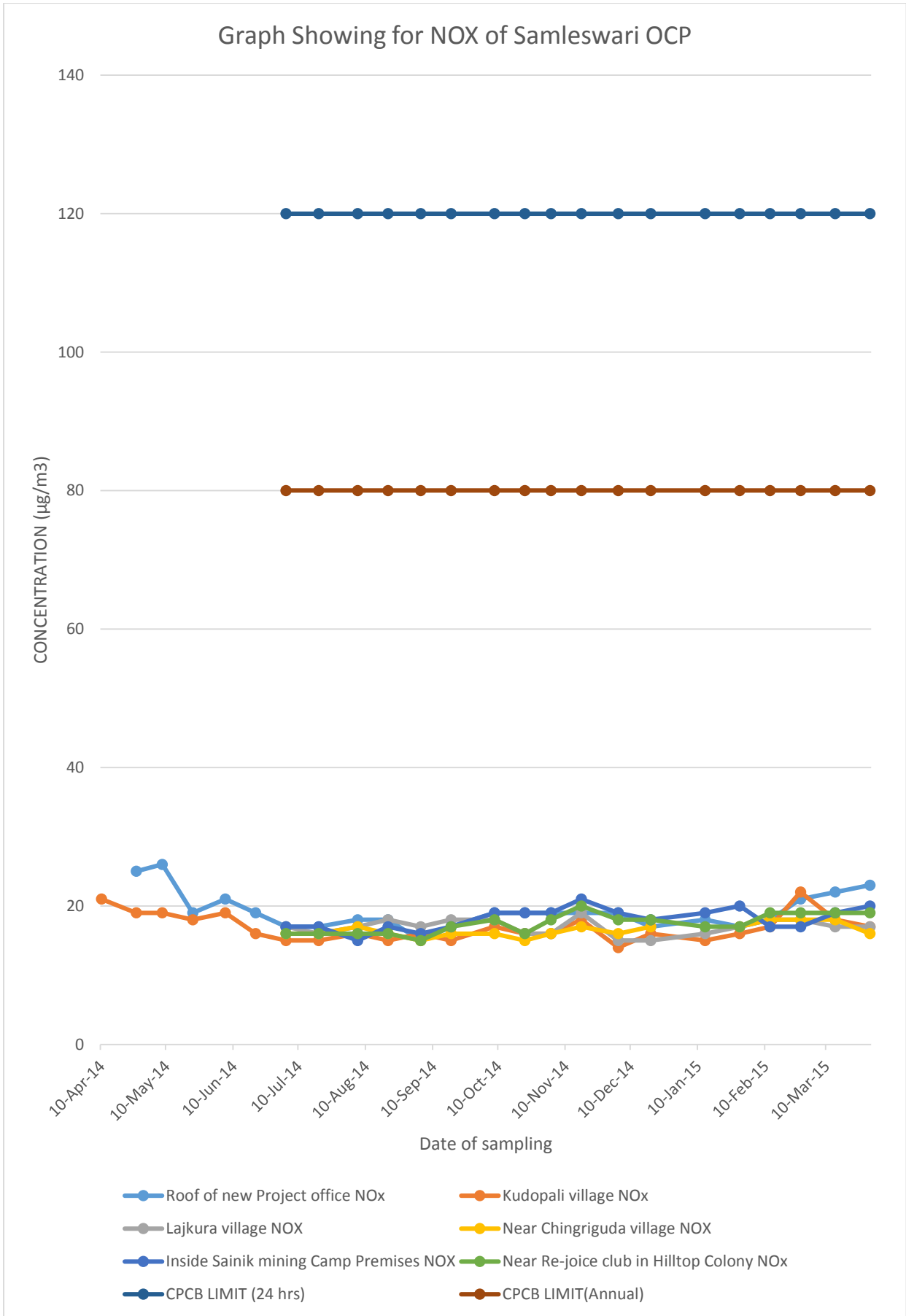
Graph Showing for RPM of Samleswari OCP



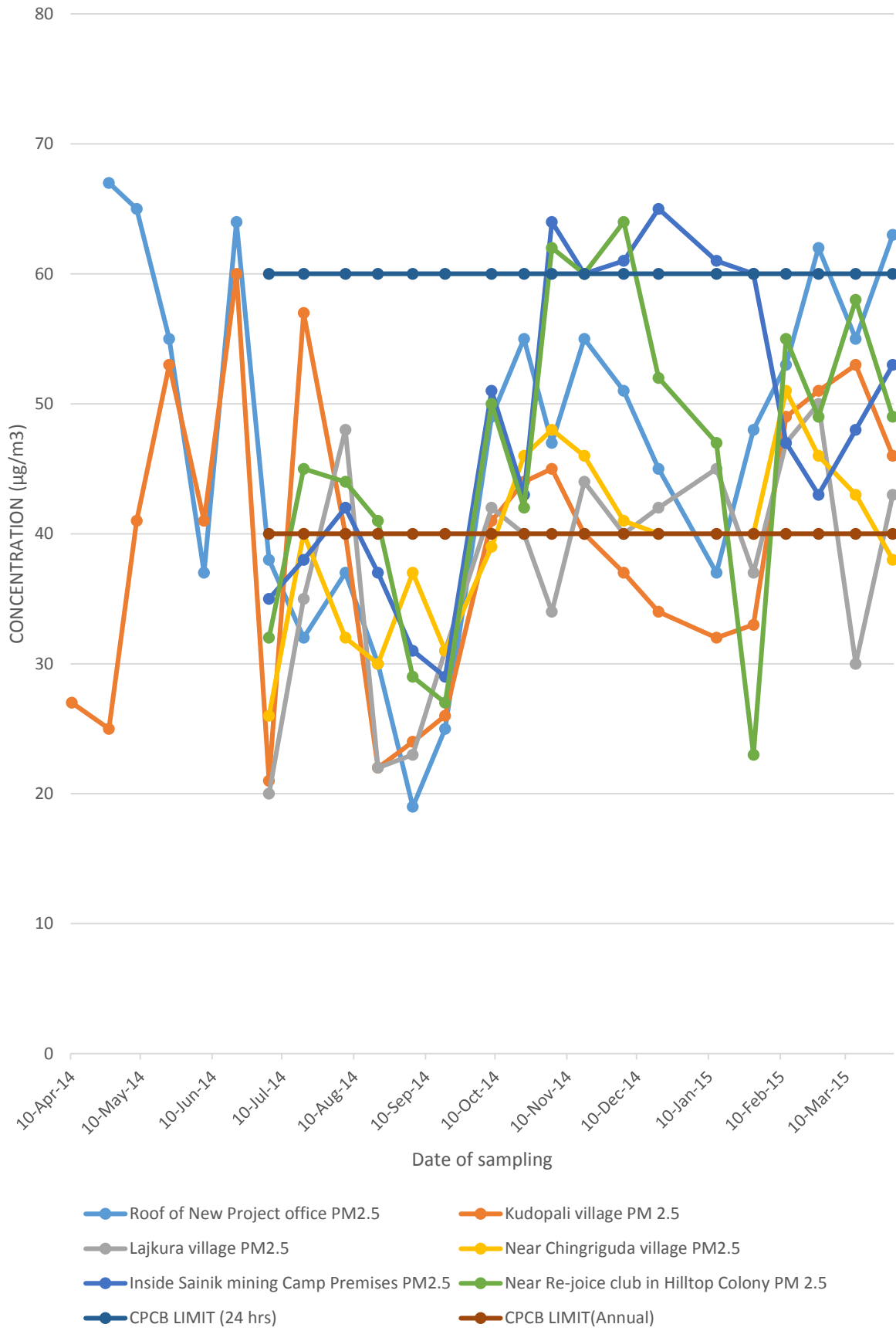
Graph Showing for SO<sub>2</sub> of Samleswari OCP



- Roof of new Project office SO<sub>2</sub>
- Lajkura village SO<sub>2</sub>
- Inside Sainik mining Camp Premises SO<sub>2</sub>
- CPCB LIMIT (24 hrs)
- Kudopali village SO<sub>2</sub>
- Near Chingriguda village SO<sub>2</sub>
- Near Re-joice club in Hilltop Colony SO<sub>2</sub>
- CPCB LIMIT(Annual)



Graph Showing for PM2.5 of Samleswari OCP



**Table : 8 Air Quality Data**

**Project : Lajkura OCP**

**Monitoring Station : Near Project Office**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
10-Apr-14	312	128	21	24	57	East to west hot & sunny
25-Apr-14	242	121	18	21	42	East to west hot & sunny
09-May-14	251	118	17	22	55	West to east hot & sunny evening rainfall
24-May-14	312	124	19	24	61	West to east hot & sunny
06-Jun-14	317	128	21	25	56	West to east hot & sunny
20-Jun-14	209	99	19	22	50	West to east cloudy & rain fall
07-Jul-14	212	102	16	19	41	West to east cloudy & Sunny
22-Jul-14	203	105	14	18	54	East to west cloudy & evening rain fall
07-Aug-14	232	124	15	19	38	West to east sunny & cloudy
21-Aug-14	201	119	16	19	39	West to east sunny & evening rain fall
05-Sep-14	157	73	14	17	26	East to west cloudy & sunny evening rain fall
19-Sep-14	147	82	18	16	31	East to west cloudy & sunny evening rain fall
08-Oct-14	289	137	16	20	59	West to east sunny & cloudy
22-Oct-14	271	132	15	18	54	West to east sunny & cloudy
07-Nov-14	281	137	16	19	64	East to west & cloudy
21-Nov-14	315	144	17	20	44	West to east & sunny
05-Dec-14	328	140	16	19	56	West to east & sunny
22-Dec-14	340	137	17	20	69	West to east & sunny
13-Jan-15	355	141	16	20	65	East to west sunny & cloudy
29-Jan-15	320	127	15	18	36	East to west & sunny
12-Feb-15	340	131	16	20	63	East to west Cloudy & Rainfall
26-Feb-15	353	140	17	21	69	East to west & Sunny
14-Mar-15	374	159	18	21	54	East to west & Sunny
30-Mar-15	368	143	17	21	64	East to west & Sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM2.5</b>	
<b>Maximum</b>	374	159	21	25	69	
<b>Minimum</b>	147	73	14	16	26	
<b>Average</b>	280.38	124.63	16.83	20.13	51.96	
<b>95 Percentile</b>	366.05	143.85	20.7	24	68.4	
<b>98 Percentile</b>	371.24	152.1	21	24.54	69	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 9 Air Quality Data**

**Project : Lajkura OCP**

**Monitoring Station : Lajkura store**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
10-Apr-14	335	141	24	28	56	East to west hot & sunny
25-Apr-14	310	133	22	25	51	East to west hot & sunny
09-May-14	303	120	20	23	59	West to east hot & sunny evening rainfall
24-May-14	346	138	22	26	65	West to east hot & sunny
06-Jun-14	340	135	22	25	48	West to east hot & sunny
20-Jun-14	252	114	19	24	41	West to east cloudy & rain fall
07-Jul-14	215	108	15	18	38	West to east cloudy & Sunny
22-Jul-14	208	107	13	18	57	East to west cloudy & evening rain fall
07-Aug-14	238	117	16	19	48	West to east sunny & cloudy
21-Aug-14	210	120	15	19	40	West to east sunny & evening rain fall
05-Sep-14	149	62	13	16	21	East to west cloudy & sunny evening rain fall
19-Sep-14	152	68	20	19	29	East to west cloudy & sunny evening rain fall
08-Oct-14	204	105	15	19	52	West to east sunny & cloudy
22-Oct-14	233	121	14	17	57	West to east sunny & cloudy
06-Nov-14	304	148	16	20	66	West to east sunny & cloudy
21-Nov-14	336	146	17	21	43	West to east & sunny
05-Dec-14	322	139	15	20	55	West to east & sunny
22-Dec-14	330	131	15	19	64	West to east & sunny
13-Jan-15	341	120	14	18	57	East to west sunny & cloudy
29-Jan-15	355	144	17	21	68	East to west & sunny
12-Feb-15	260	117	14	18	51	East to west Cloudy & Rainfall
26-Feb-15	281	120	15	18	56	East to west & Sunny
14-Mar-15	330	138	17	20	46	East to west & Sunny
30-Mar-15	323	126	16	19	55	East to west & Sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	355	148	24	28	68	
<b>Minimum</b>	149	62	13	16	21	
<b>Average</b>	278.21	121.58	16.92	20.42	50.96	
<b>95 Percentile</b>	345.25	145.7	22	25.85	65.85	
<b>98 Percentile</b>	350.86	147.08	23.08	27.08	67.08	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 10 Air Quality Data**
**Project : Lajkura OCP**
**Monitoring Station : Near Chigriguda village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
09-Jul-14	109	50	13	16	26	West to east cloudy & Sunny
24-Jul-14	107	48	12	16	40	West to east cloudy & evening rain fall
09-Aug-14	100	55	14	17	32	West to east sunny & evening rain fall
25-Aug-14	105	68	12	16	30	West to east cloudy & evening rain fall
09-Sep-14	75	38	12	15	37	East to west cloudy & sunny evening rain fall
23-Sep-14	83	34	13	16	31	East to west cloudy & sunny evening rain fall
10-Oct-14	123	79	13	16	39	West to east sunny & cloudy
24-Oct-14	155	86	12	15	46	West to east & sunny
10-Nov-14	181	89	12	16	48	West to east sunny & cloudy
25-Nov-14	184	88	14	17	46	West to east & sunny
09-Dec-14	170	80	13	16	41	West to east & sunny
24-Dec-14	191	94	13	17	40	West to east & sunny
06-Jan-15						Coal India strike
21-Jan-15	181	85	13	17	40	West to east & sunny.
05-Feb-15	207	94	14	18	51	West to east & sunny.
19-Feb-15	215	97	15	18	46	West to east & sunny.
09-Mar-15	232	109	15	18	43	East to west & Sunny
23-Mar-15	157	59	13	16	38	East to west & Sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM2.5</b>	
<b>Maximum</b>	232	109	15	18	51	
<b>Minimum</b>	75	34	12	15	26	
<b>Average</b>	151.47	73.71	13.12	16.47	39.65	
<b>95 Percentile</b>	218.4	99.4	15	18	48.6	
<b>98 Percentile</b>	226.56	105.16	15	18	50.04	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

Table: Analysis of NAAQS Parameters

Name of Location	Units	Chingriguda Village	Chingriguda Village	Chingriguda Village	Chingriguda Village	Chingriguda Village	Chingriguda Village	Chingriguda Village	Chingriguda Village	Standard
<b>Date of Sampling</b>		<b>09-12-2014</b>	<b>24-12-2014</b>	<b>06-01-2015</b>	<b>21-01-2015</b>	<b>05-02-2015</b>	<b>19-02-2015</b>	<b>09-03-2015</b>	<b>23-03-2015</b>	
<b>Ammonia(NH<sub>3</sub>)</b>	<b>(ug/m<sup>3</sup>)</b>	<i>BDL</i>	<i>BDL</i>	<6.0	<6.0	<6.0	6.3	<6.0	6.4	<b>400</b>
<b>Ozone(O<sub>3</sub>)</b>	<b>(ug/m<sup>3</sup>)</b>	7.6	7.3	6.8	6.1	<3.0	4.2	<3.0	<3.0	<b>60</b>
<b>B(a)P</b>	<b>ng/m<sup>3</sup></b>	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<b>1</b>
<b>Lead (Pb)</b>	<b>(ug/m<sup>3</sup>)</b>	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<b>1</b>
<b>Arsenic (As)</b>	<b>(ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>6</b>
<b>Nickle (Ni)</b>	<b>( ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>20</b>
<b>Benzene(C<sub>6</sub>H<sub>6</sub>)</b>	<b>(ug/m<sup>3</sup>)</b>	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<b>5</b>
<b>Carbon monoxide(CO)</b>	<b>(mg/m<sup>3</sup>)</b>	<i>BDL</i>	<i>BDL</i>	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<b>2</b>
<b>Mercury(Hg)</b>				<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>Chromium(Cr)</b>			<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	
<b>Cadmium(Cd)</b>			<0.01	<0.01	<0.01	<0.5	<0.5	<0.5	<0.5	

**Table: Analysis of Heavy Metals**

**Project: Samaleswari OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
23.12.14	Roof of new project office	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.5
23.12.14	Lajkura village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
24.12.14	Kudopali village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
24.12.14	Inside Sainik mining camp	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
23.12.14	Nr. Rejoice Hiltop colony	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0

**Table: Analysis of Heavy Metals**

**Project: Samaleswari OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
22.12.14	Nr. Project office	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
22.12.14	Lajkura store	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
22.12.14	Nr. Adarsh Nagar colony(lajkura OCP)	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.8

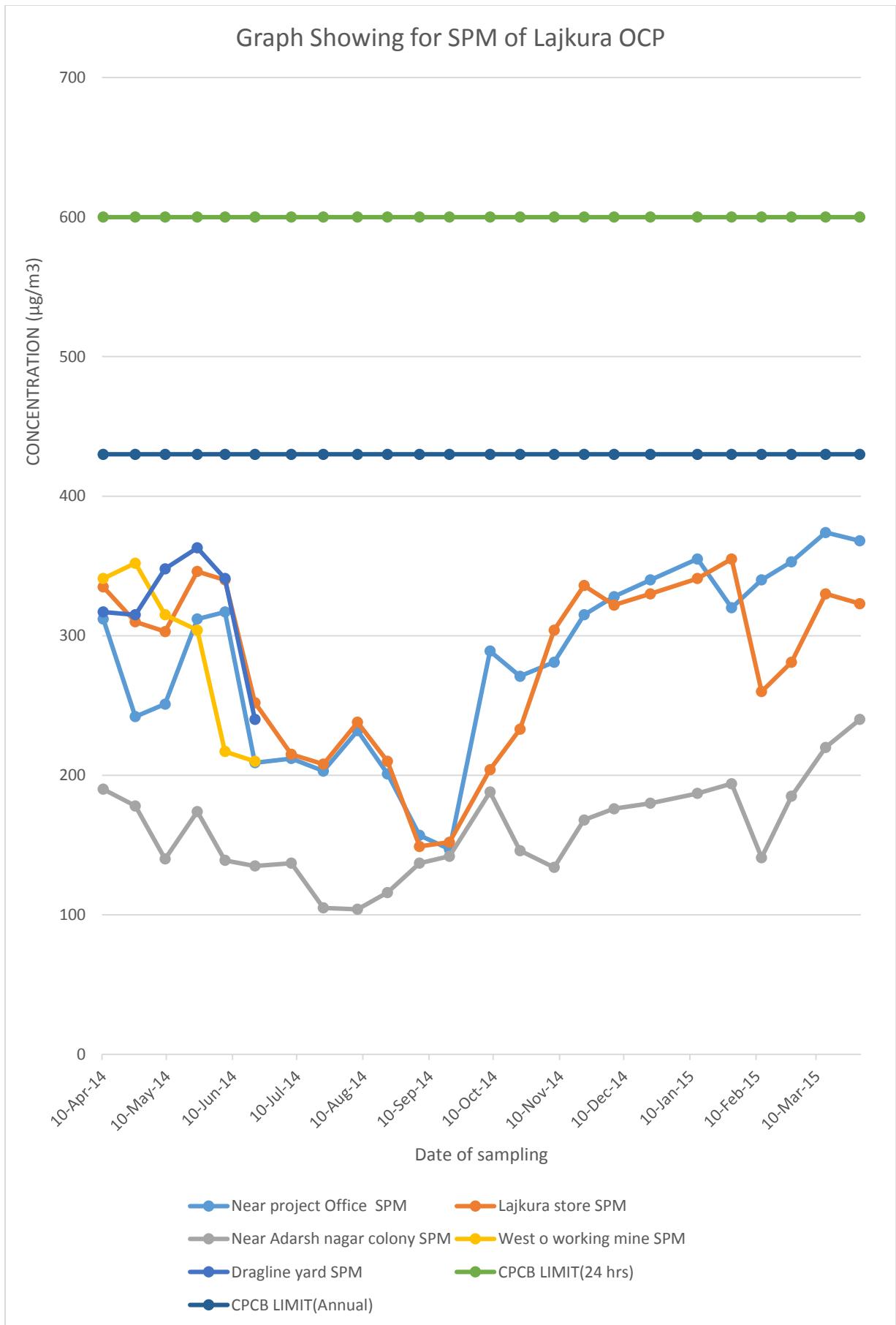
**Table : 11 Air Quality Data**

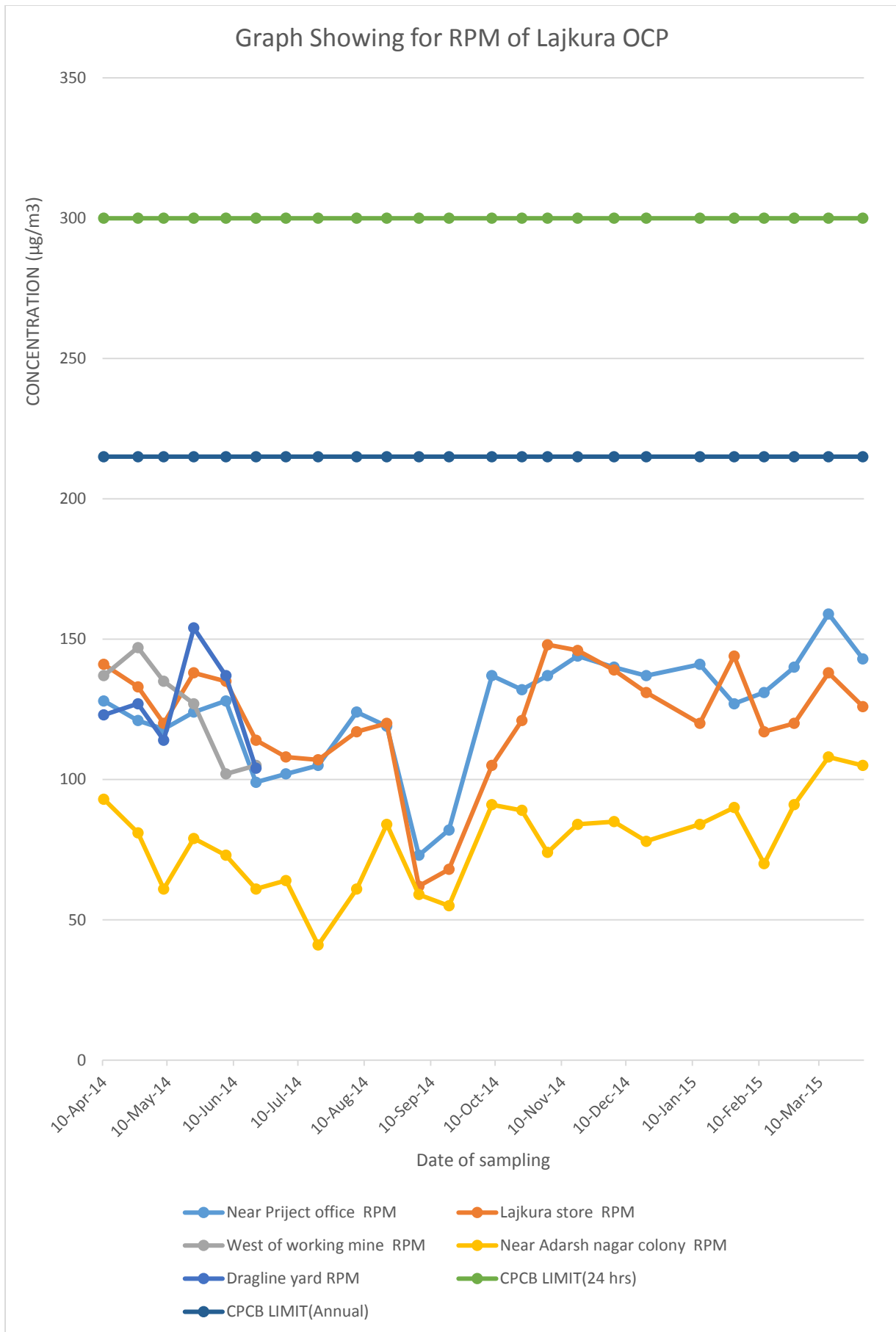
**Project : Lajkura OCP**

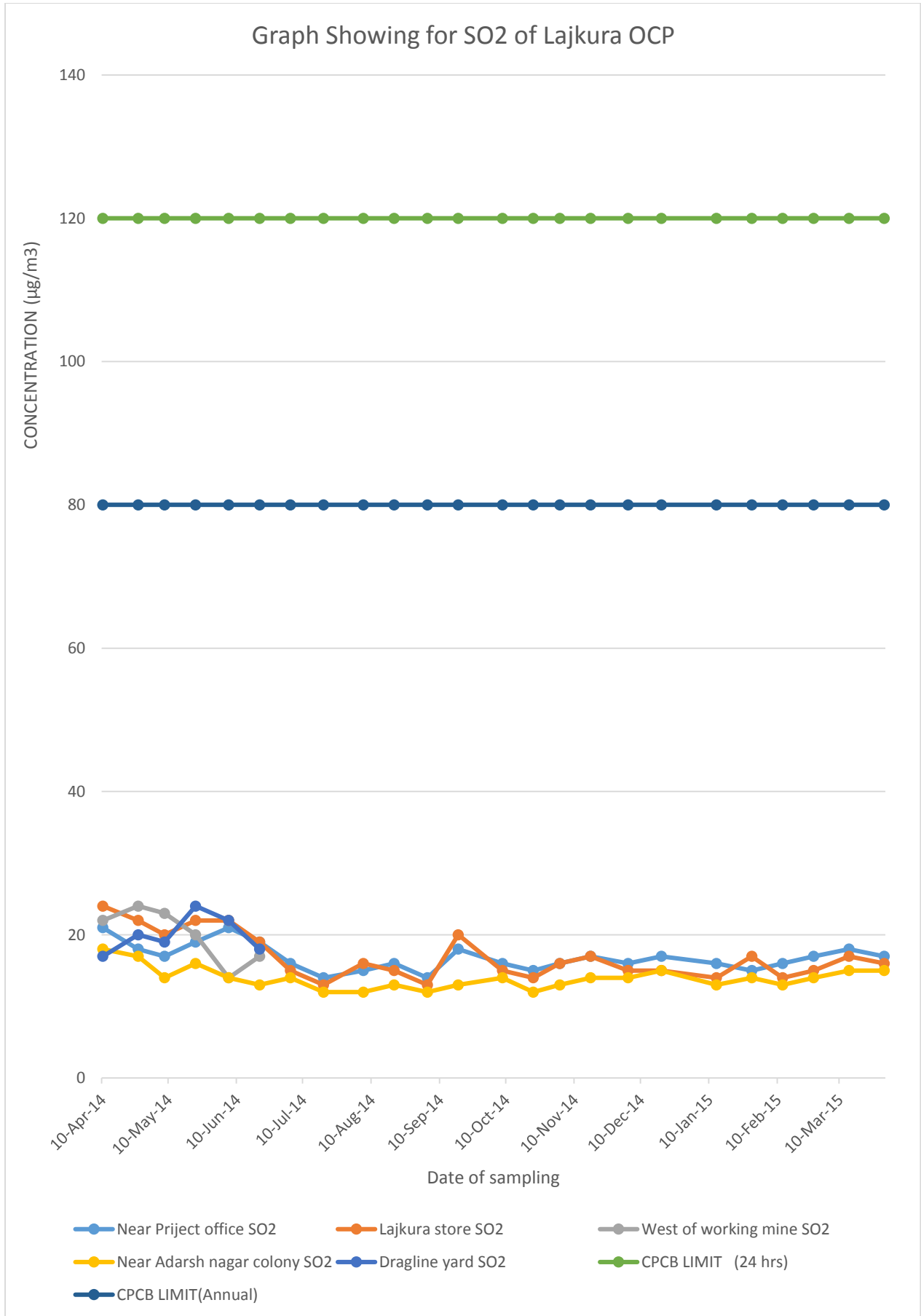
**Monitoring Station : Dragline Yard**

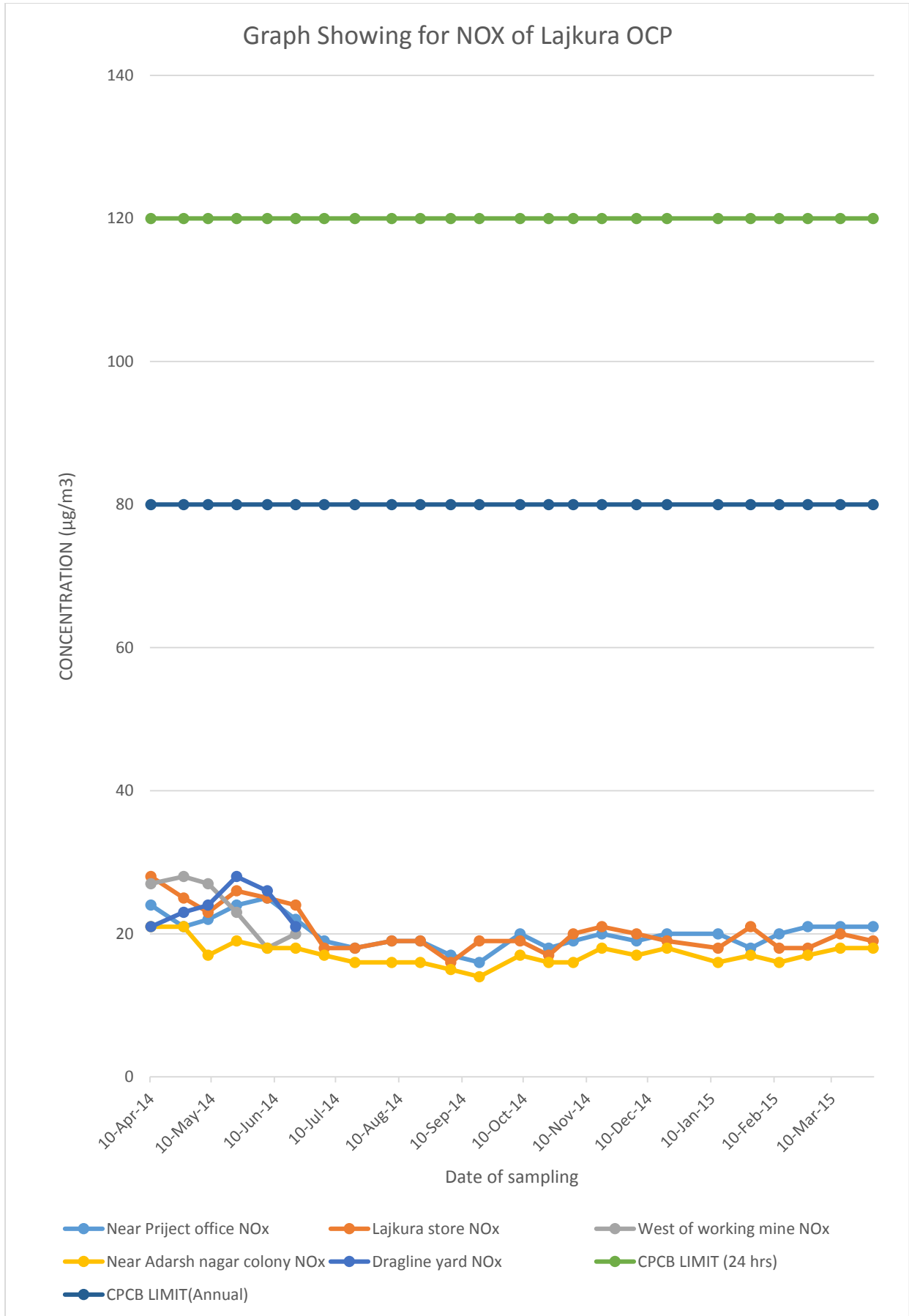
Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
11-Apr-14	317	123	17	21	25	West to east hot & sunny
26-Apr-14	315	127	20	23	45	West to east hot & sunny
08-May-14	348	114	19	24	55	East to west hot & sunny
23-May-14	363	154	24	28	65	East to west hot & sunny
06-Jun-14	341	137	22	26	63	West to east hot & sunny
20-Jun-14	240	104	18	21	47	East to west cloudy & evening rain fall
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	363	154	24	28	65	
<b>Minimum</b>	240	104	17	21	25	
<b>Average</b>	320.67	126.5	20	23.83	50	
<b>95 percentile</b>	359.25	149.75	23.5	27.5	64.5	
<b>98 percentile</b>	361.5	152.3	23.8	27.8	64.8	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

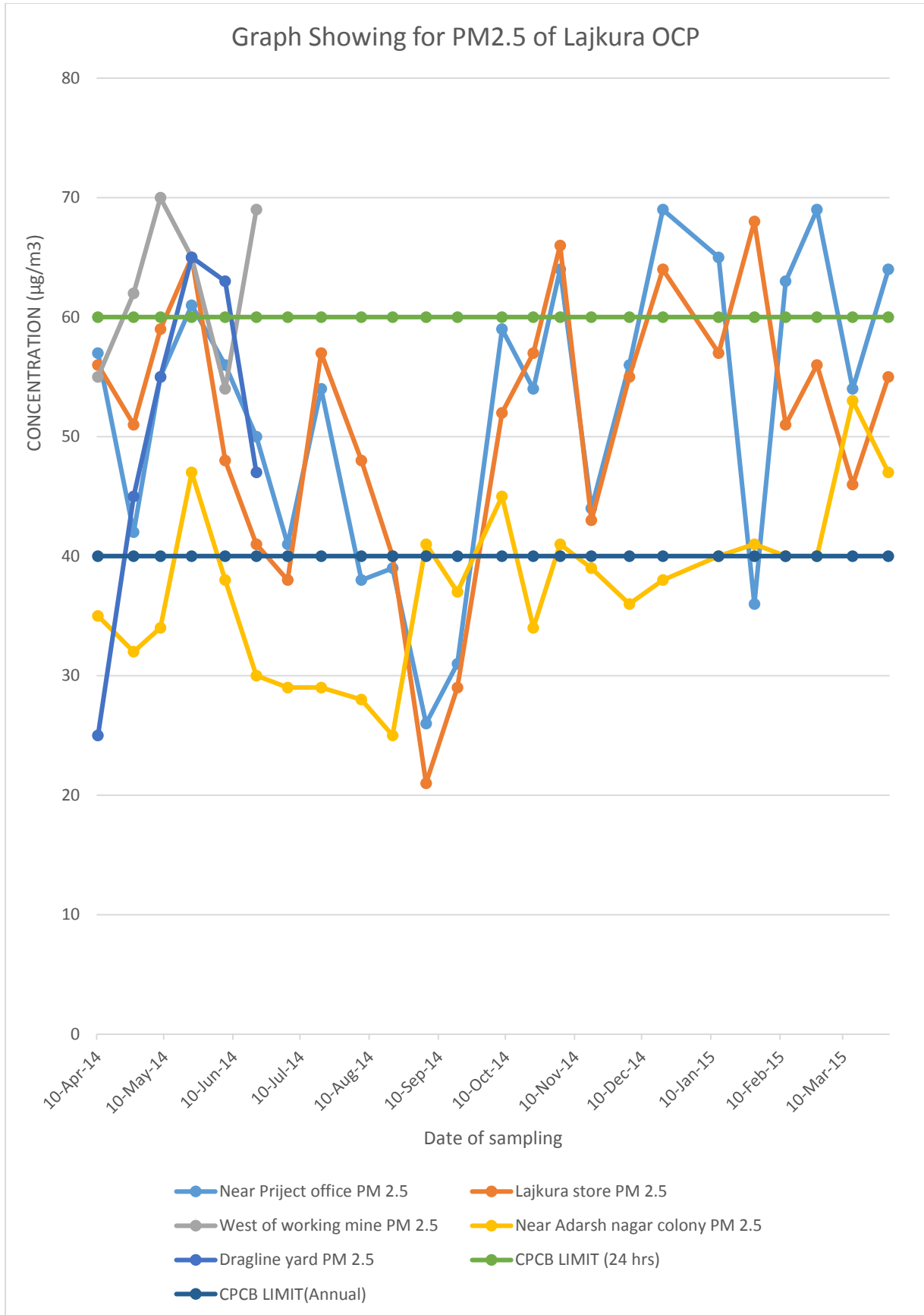
*All values are in  $\mu\text{g}/\text{m}^3$*











**Table : 12 Air Quality Data**
**Project : Lakhanpur OCP**
**Monitoring station : Toward NW side of Quarry No-1**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
14-Apr-14	348	146	24	29	30	East to west hot & sunny
28-Apr-14	354	153	25	28	48	East to west hot & sunny
15-May-14	361	150	24	29	72	West to east hot & sunny
30-May-14	195	120	14	18	20	West to east cloudy & heavy rain fall
12-Jun-14	272	136	23	26	50	West to east hot & sunny
27-Jun-14	234	108	20	24	66	East to west hot & sunny cloudy evening rain fall
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	361	153	25	29	72	
<b>Minimum</b>	195	108	14	18	20	
<b>Average</b>	294	135.5	21.67	25.67	47.67	
<b>95 Percentile</b>	359.25	152.25	24.75	29	70.5	
<b>98 Percentile</b>	360.3	152.7	24.9	29	71.4	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

### Table : 13 Air Quality Data

#### Project : Lakhanpur OCP

#### Monitoring station : NCC Camp

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Jul-14	171	78	13	16	43	West to east cloudy & Sunny
30-Jul-14	107	45	12	16	30	East to west cloudy & evening rain fall
11-Aug-14	94	56	12	15	42	East to west cloudy & evening rain fall
27-Aug-14	166	93	15	18	27	East to west cloudy & evening rain fall
11-Sep-14	118	71	13	17	36	East to west sunny & cloudy evening rain fall
25-Sep-14	145	79	12	16	41	East to west sunny & cloudy evening rain fall
13-Oct-14	78	43	12	15	54	East to west cloudy & sunny evening rain fall
29-Oct-14	194	91	15	18	61	West to east & sunny
11-Nov-14	247	105	14	18	48	East to west & sunny
27-Nov-14	339	140	17	20	57	West to east & sunny.
11-Dec-14	197	99	12	15	42	West to east cloudy & sunny.
25-Dec-14	210	96	13	17	47	East to west & sunny
08-Jan-15	195	90	14	17	39	West to east & sunny
23-Jan-15	207	96	13	16	44	West to east & sunny
09-Feb-15	284	136	17	20	66	West to east & sunny
20-Feb-15	253	109	13	16	39	West to east & sunny
07-Mar-15	304	124	14	17	46	West to east & sunny
21-Mar-15	336	150	17	20	70	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	339	150	17	20	70	
<b>Minimum</b>	78	43	12	15	27	
<b>Average</b>	202.5	94.5	13.78	17.06	46.22	
<b>95 Percentile</b>	336.45	141.5	17	20	66.6	
<b>98 Percentile</b>	337.98	146.6	17	20	68.64	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 14 Air Quality Data**

**Project : Lakhanpur OCP**

**Monitoring station : Near Clear Tank of MDTP**

Date of Sampling	SPM	RPM	SO2	NOx	PM2.5	Remarks
12-Aug-14	180	117	14	17	62	East to west sunny & cloudy
28-Aug-14	136	69	13	17	38	West to east cloudy & evening rain fall
11-Sep-14	116	64	12	16	35	East to west cloudy & sunny evening rain fall
25-Sep-14	121	69	15	17	31	East to west cloudy & sunny evening rain fall
15-Oct-14	249	109	14	18	50	East to west & sunny
29-Oct-14	288	131	16	19	67	West to east & sunny
12-Nov-14	279	128	15	18	52	West to east sunny & cloudy
28-Nov-14	330	142	17	20	60	East to west & sunny
11-Dec-14	318	131	17	20	63	West to east cloudy & sunny.
26-Dec-14	321	125	16	20	68	West to east & sunny
07-Jan-15						Coal India strike
22-Jan-15	330	135	17	20	60	East to west sunny & cloudy
06-Feb-15	340	137	17	20	46	East to west & sunny
20-Feb-15	320	131	17	20	64	East to west & sunny
10-Mar-15	340	140	17	21	66	West to east & sunny
24-Mar-15	363	156	16	21	75	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM2.5</b>	
<b>Maximum</b>	363	156	17	21	75	
<b>Minimum</b>	116	64	12	16	31	
<b>Average</b>	268.73	118.93	15.53	18.93	55.8	
<b>95 Percentile</b>	346.9	146.2	17	21	70.1	
<b>98 Percentile</b>	356.56	152.08	17	21	73.04	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 15 Air Quality Data**
**Project : Lakhanpur OCP**
**Monitoring station : Near OB Dump No-1**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Apr-14	354	158	26	30	40	West to east hot & sunny
28-Apr-14	366	164	24	29	67	East to west hot & sunny
15-May-14	372	168	26	30	69	West to east hot & sunny
30-May-14	251	104	16	19	50	West to east cloudy & heavy rain fall
12-Jun-14	290	124	19	22	36	West to east hot & sunny
27-Jun-14	243	101	18	21	40	East to west hot & sunny cloudy evening rain fall
15-Jul-14	212	104	14	17	34	West to east cloudy & Sunny
30-Jul-14	179	80	13	16	38	East to west cloudy & evening rain fall
11-Aug-14	89	38	12	16	24	East to west cloudy & evening rain fall
27-Aug-14	80	34	12	16	20	East to west cloudy & evening rain fall
11-Sep-14	93	36	12	15	33	East to west cloudy & sunny evening rain fall
25-Sep-14	89	42	17	18	29	East to west cloudy & sunny evening rain fall
15-Oct-14	163	73	13	16	33	East to west & sunny
30-Oct-14	134	85	12	16	32	East to west & sunny
11-Nov-14	171	110	13	16	35	East to west & sunny
27-Nov-14	240	109	14	17	37	West to east & sunny
11-Dec-14	251	102	13	17	48	West to east cloudy & sunny.
25-Dec-14	313	141	16	19	64	East to west & sunny
08-Jan-15	289	120	15	18	55	West to east & sunny
23-Jan-15	218	102	14	18	45	West to east & sunny
09-Feb-15	275	134	16	19	64	West to east & sunny
20-Feb-15	269	121	14	17	53	West to east & sunny
07-Mar-15	355	109	17	22	59	West to east & sunny
21-Mar-15	360	141	16	21	66	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	372	168	26	30	69	
<b>Minimum</b>	80	34	12	15	20	
<b>Average</b>	235.67	104.17	15.91	19.3	44.63	
<b>95 Percentile</b>	365.1	163.1	25.8	29.9	66.85	
<b>98 Percentile</b>	369.24	166.16	26	30	68.08	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 16 Air Quality Data**

**Project : Lakhanpur OCP**

**Monitoring station : Quarry No-2**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Apr-14	348	146	24	29	30	East to west hot & sunny
29-Apr-14	370	169	24	28	63	East to west hot & sunny
14-May-14	378	164	25	29	61	East to west hot & sunny
29-May-14	320	122	20	23	74	West to east hot & sunny
11-Jun-14	318	119	18	21	65	East to west hot & sunny
25-Jun-14	227	104	19	22	61	East to west hot & sunny cloudy evening rain fall
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	378	169	25	29	74	
<b>Minimum</b>	227	104	18	21	30	
<b>Average</b>	326.83	137.33	21.67	25.33	59	
<b>95 Percentile</b>	376	167.75	24.75	29	71.75	
<b>98 Percentile</b>	377.2	168.5	24.9	29	73.1	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 17 Air Quality Data**

**Project : Lakhanpur OCP**

**Monitoring station : Quarry 4 sub Station**

Date of Sampling	SPM	RPM	SO2	NOx	PM2.5	Remarks
14-Jul-14	121	60	12	16	19	East to west cloudy & rain fall
31-Jul-14	97	53	13	17	38	West to east cloudy & evening rain fall
13-Aug-14	110	58	14	18	21	West to east sunny & cloudy
28-Aug-14	92	40	14	17	25	West to east cloudy & evening rain fall
12-Sep-14	177	76	15	18	44	West to east sunny & cloudy
26-Sep-14	181	82	16	17	48	West to east sunny & cloudy
13-Oct-14	104	48	12	15	36	East to west cloudy & sunny evening rain fall
29-Oct-14	146	95	14	17	35	East to west & sunny
12-Nov-14	236	111	15	19	46	West to east sunny & cloudy
27-Nov-14	295	125	16	20	52	West to east & sunny
11-Dec-14	310	129	16	21	40	West to east cloudy & sunny.
26-Dec-14	325	124	15	19	59	West to east & sunny
07-Jan-15	Coal India strike					
22-Jan-15	315	118	15	19	65	East to west sunny & cloudy
06-Feb-15	344	141	17	21	69	East to west & sunny
20-Feb-15	334	130	16	20	63	East to west & sunny
10-Mar-15	340	151	18	21	41	West to east & sunny
24-Mar-15	331	136	15	18	55	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM2.5</b>	
<b>Maximum</b>	344	151	18	21	69	
<b>Minimum</b>	92	40	12	15	19	
<b>Average</b>	226.94	98.65	14.88	18.41	44.47	
<b>95 Percentile</b>	340.8	143	17.2	21	65.8	
<b>98 Percentile</b>	342.72	147.8	17.68	21	67.72	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 18 Air Quality Data**

**Project : Lakhanpur OCP**

**Monitoring station : Ubuda Village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Apr-14	190	94	18	22	40	East to west hot & sunny
29-Apr-14	192	91	19	23	39	East to west hot & sunny
13-May-14	195	96	20	23	42	West to east hot & sunny
29-May-14	191	66	14	17	44	West to east hot & sunny
12-Jun-14	174	68	14	18	40	West to east hot & sunny
26-Jun-14	154	63	13	17	42	West to east sunny & cloudy evening rain fall
14-Jul-14	140	59	14	17	37	West to east cloudy & Sunny
31-Jul-14	107	41	12	15	46	West to east cloudy & evening rain fall
13-Aug-14	98	49	13	16	25	West to east sunny & cloudy
27-Aug-14	95	51	12	15	28	West to east cloudy & evening rain fall
12-Sep-14	130	70	12	16	27	West to east sunny & cloudy
26-Sep-14	134	75	14	16	32	West to east sunny & cloudy
13-Oct-14	104	48	12	15	36	East to west cloudy & sunny evening rain fall
29-Oct-14	101	52	12	15	32	West to east & sunny
12-Nov-14	184	87	13	16	39	West to east sunny & cloudy
26-Nov-14	198	96	14	18	42	East to west sunny & cloudy
10-Dec-14	190	87	13	16	42	East to west & sunny
26-Dec-14	192	90	14	18	43	West to east & sunny
07-Jan-15	Coal India strike					
22-Jan-15	189	90	14	17	27	East to west sunny & cloudy
06-Feb-15	202	92	14	17	51	East to west & sunny
20-Feb-15	210	108	15	18	38	East to west & sunny
10-Mar-15	242	124	14	17	39	West to east & sunny
24-Mar-15	244	119	13	17	46	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	244	124	20	23	51	
<b>Minimum</b>	95	41	12	15	25	
<b>Average</b>	167.65	78.96	14.04	17.35	38.13	
<b>95 Percentile</b>	238.8	117.9	18.9	22.9	46	
<b>98 Percentile</b>	243.12	121.8	19.56	23	48.8	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table: 19 Analysis of NAAQS Parameters**

Name of Location	Units	Ubuda Village	Ubuda Village	Ubuda Village	Ubuda Village	Ubuda Village	Ubuda Village	Ubuda Village	Ubuda Village	Standard
<b>Date of Sampling</b>		<b>10-12-2014</b>	<b>26-12-2014</b>	<b>07-01-2015</b>	<b>22-01-2015</b>	<b>06-02-2015</b>	<b>20-02-2015</b>	<b>10-03-2015</b>	<b>24-03-2015</b>	
<b>Ammonia(NH<sub>3</sub>)</b>	<b>(ug/m<sup>3</sup>)</b>	8.9	8.5	7.2	<6.0	6.2	6.2	<6.0	6.2	<b>400</b>
<b>Ozone(O<sub>3</sub>)</b>	<b>(ug/m<sup>3</sup>)</b>	6.9	7.9	6.5	<3.0	<3.0	4.6	<3.0	4.2	<b>60</b>
<b>B(a)P</b>	<b>ng/m<sup>3</sup></b>	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<b>1</b>
<b>Lead (Pb)</b>	<b>(ug/m<sup>3</sup>)</b>	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<b>1</b>
<b>Arsenic (As)</b>	<b>(ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>6</b>
<b>Nickle (Ni)</b>	<b>( ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>20</b>
<b>Benzene(C<sub>6</sub>H<sub>6</sub>)*</b>	<b>(ug/m<sup>3</sup>)</b>	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<b>5</b>
<b>Carbon monoxide(CO)</b>	<b>(mg/m<sup>3</sup>)</b>	8.9	8.5	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<b>2</b>
<b>Mercury(Hg)</b>	<b>(ng/m<sup>3</sup>)</b>			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>Chromium(Cr)</b>	<b>(ug/m<sup>3</sup>)</b>		<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	
<b>Cadmium(Cd)</b>	<b>(ug/m<sup>3</sup>)</b>		<0.01	<0.01	<0.01	<0.5	<0.5	<0.5	<0.5	

**Table: 20 Heavy Metal Analysis**
**Project: Lilari OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
25.12.14	Nr. OB Dump No.1(Lilari OCP)	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
25.12.14	Nr. Magzine House	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
25.12.14	Nr. Old coal stack yard	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0

**Table: 21 Heavy Metal Analysis**

**Project: Lakhanpur OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
25.12.14	Nr. OB Dump No.1(Lakhanpur OCP)	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.5
25.12.14	N.C.C. Camp	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
26.12.14	Tingismal village	-	-	-	-	<0.01	<0.01	-	-	-	-
26.12.14	Nr. Clear Tank of M.D.T.P.	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
26.12.14	Quarry No.4	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.6

**Table: 22 Heavy Metal Analysis**

**Project: Belpahar OCP**

Table 1DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
29.12.14	Quarry No.5	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
29.12.14	Bandhabahal township	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.8
29.12.14	Quarry No. 03	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
29.12.14	Nr. MDTP	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.5

**Table : 23**
**Project : Lakhanpur OCP**
**Monitoring station : Tingismal Village**

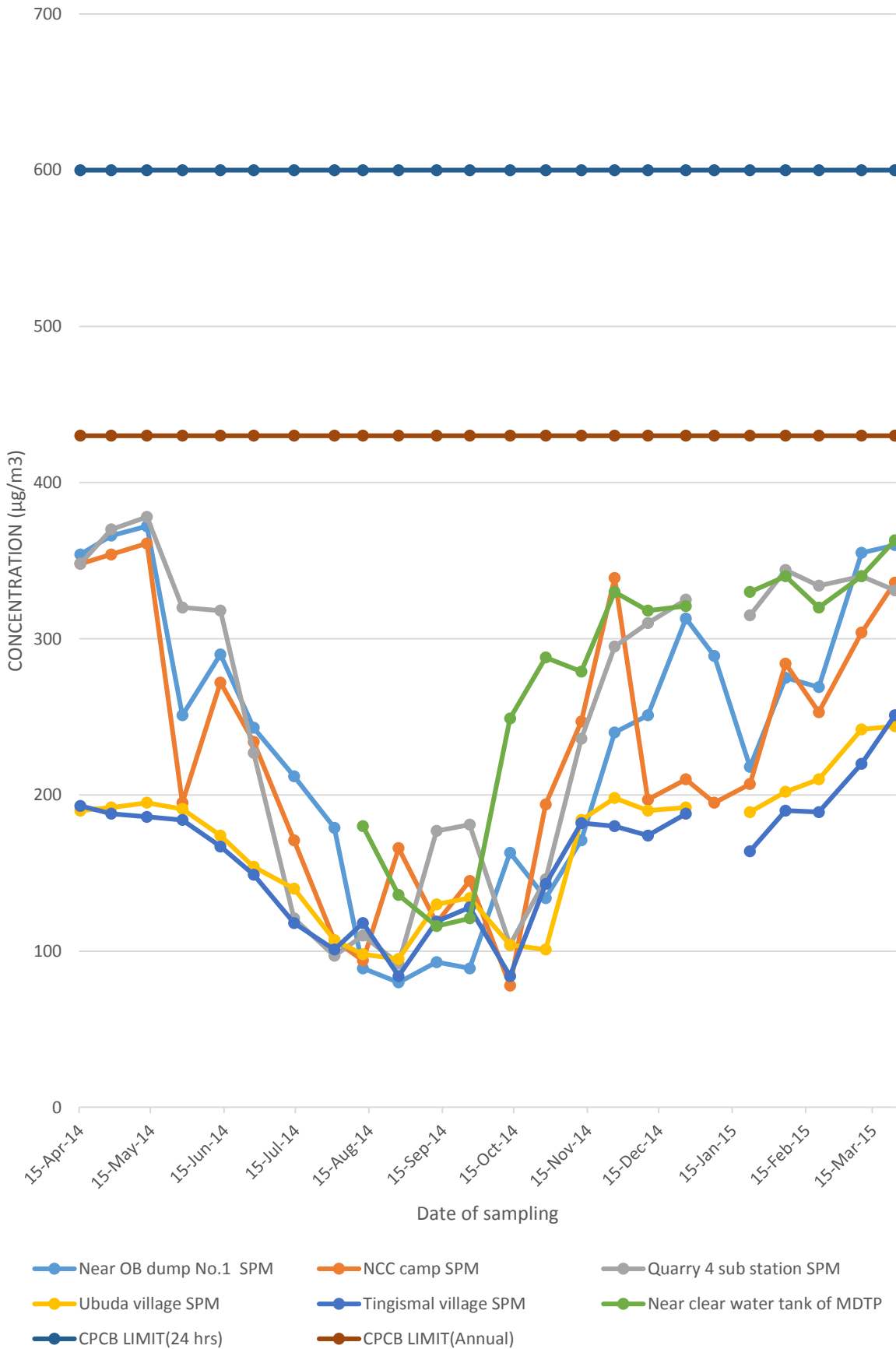
Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Apr-14	193	90	20	23	32	West to east hot & sunny
28-Apr-14	188	87	18	21	29	East to west hot & sunny
13-May-14	186	82	17	20	30	West to east hot & sunny
28-May-14	184	74	13	17	32	East to west hot & sunny
13-Jun-14	167	75	14	17	38	East to west hot & sunny
27-Jun-14	149	60	15	18	30	West to east sunny & cloudy evening rain fall
14-Jul-14	118	47	12	15	31	East to west cloudy & rain fall
31-Jul-14	101	44	13	17	29	West to east cloudy & evening rain fall
12-Aug-14	118	69	15	18	31	East to west sunny & cloudy
27-Aug-14	84	47	12	16	34	West to east cloudy & evening rain fall
12-Sep-14	119	57	13	16	25	West to east sunny & cloudy
26-Sep-14	128	62	15	18	31	West to east sunny & cloudy
13-Oct-14	84	41	13	16	35	East to west cloudy & sunny evening rain fall
28-Oct-14	143	76	13	16	40	East to west & sunny
12-Nov-14	182	91	12	15	21	West to east sunny & cloudy
26-Nov-14	180	86	12	15	38	East to west sunny & cloudy
10-Dec-14	174	82	13	16	45	East to west & sunny
26-Dec-14	188	89	14	17	39	West to east & sunny
07-Jan-15	Coal India strike					
22-Jan-15	164	76	13	16	39	East to west sunny & cloudy
06-Feb-15	190	89	13	16	47	East to west & sunny
20-Feb-15	189	90	12	16	43	East to west & sunny
10-Mar-15	220	110	13	16	30	West to east & sunny
24-Mar-15	251	107	15	18	48	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
Maximum	251	110	20	23	48	
Minimum	84	41	12	15	21	
Average	160.87	75.26	13.91	17.09	34.65	
95 Percentile	217.3	105.4	17.9	20.9	46.8	
98 Percentile	237.36	108.68	19.12	22.12	47.56	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

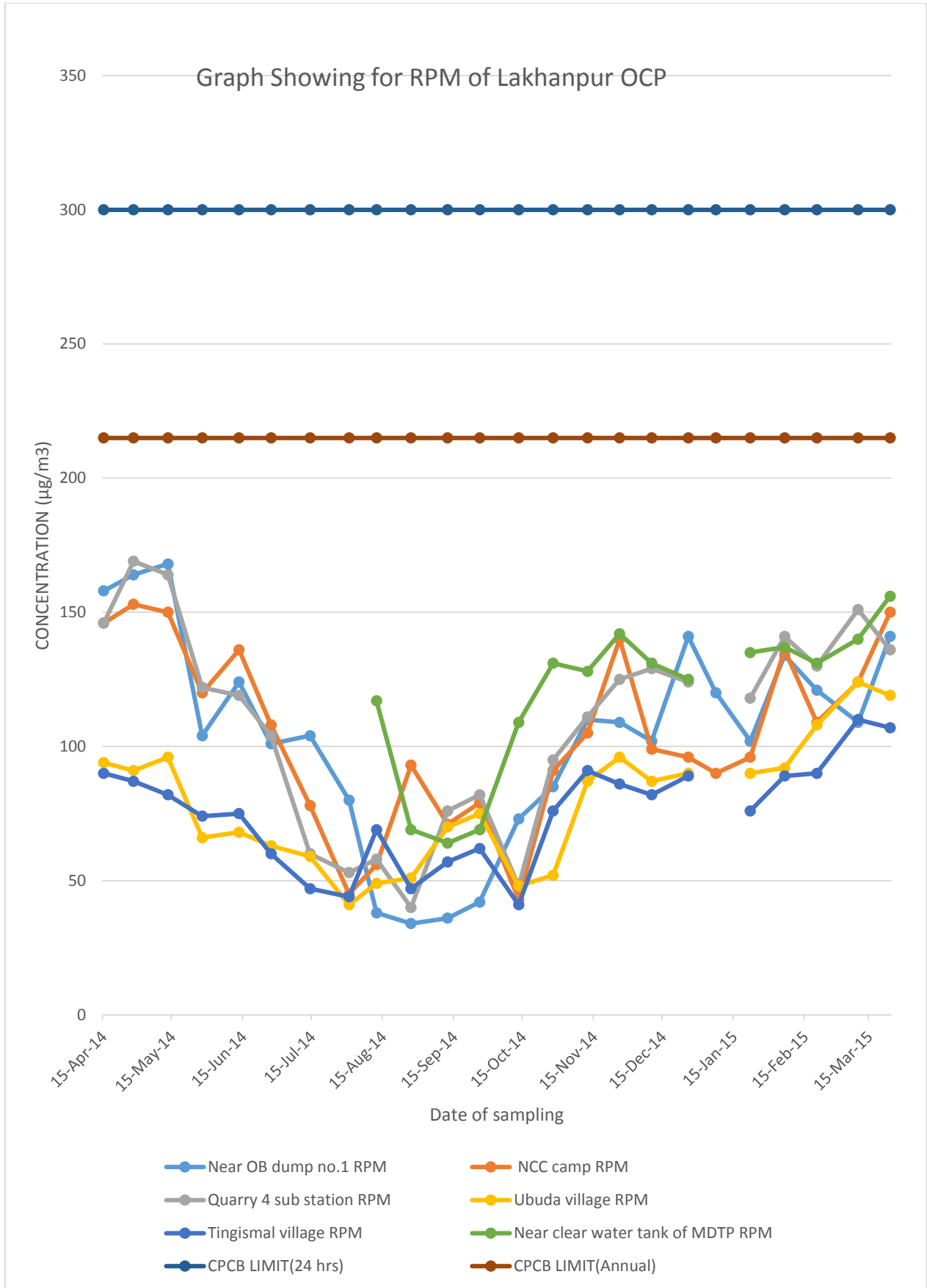
*All values are in  $\mu\text{g}/\text{m}^3$*

**Table : 24 Analysis of NAAQS Parameter**

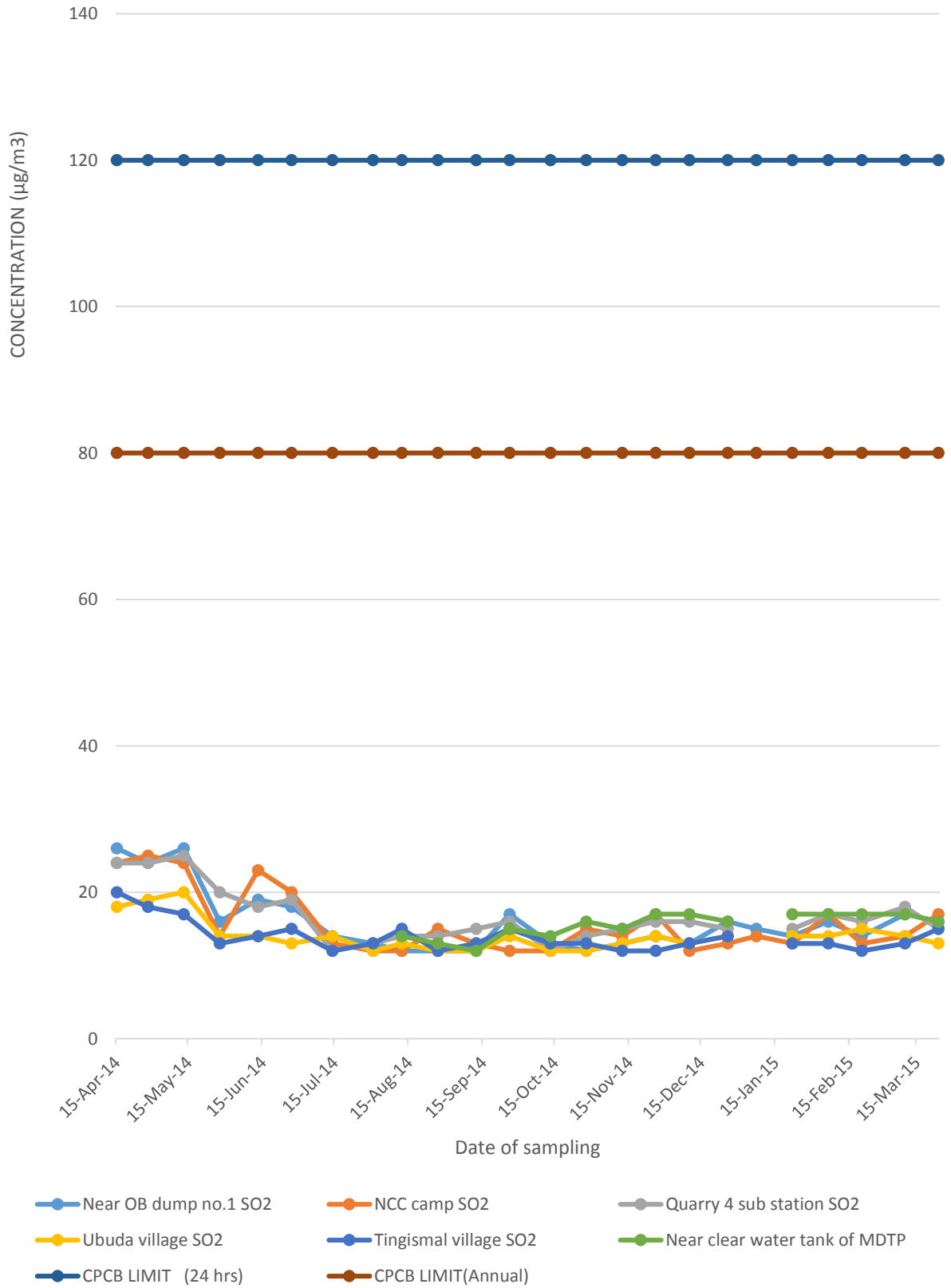
Name of Location	Units	Tingismal Village	Tingismal Village	Tingismal Village	Tingismal Village	Tingismal Village	Tingismal Village	Tingismal Village	Tingismal Village	Standard
<b>Date of Sampling</b>		<b>10-12-2014</b>	<b>26-12-2014</b>	<b>07-01-2015</b>	<b>22-01-2015</b>	<b>06-02-2015</b>	<b>20-02-2015</b>	<b>10-03-2015</b>	<b>24-03-2015</b>	
<b>Ammonia(NH<sub>3</sub>)</b>	(ug/m <sup>3</sup> )	10.6	9.2	6.9	6.3	<6.0	<6.0	6.2	<6.0	<b>400</b>
<b>Ozone(O<sub>3</sub>)</b>	(ug/m <sup>3</sup> )	7.8	6.7	6.2	<3.0	<3.0	<3.0	3.9	<3.0	<b>60</b>
<b>B(a)P</b>	ng/m <sup>3</sup>	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<b>1</b>
<b>Lead (Pb)</b>	(ug/m <sup>3</sup> )	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<b>1</b>
<b>Arsenic (As)</b>	(ng/m <sup>3</sup> )	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>6</b>
<b>Nickle (Ni)</b>	( ng/m <sup>3</sup> )	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>20</b>
<b>Benzene(C<sub>6</sub>H<sub>6</sub>)*</b>	(ug/m <sup>3</sup> )	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<b>5</b>
<b>Carbon monoxide(CO)</b>	(mg/m <sup>3</sup> )	10.6	9.2	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<b>2</b>
<b>Mercury(Hg)</b>	(ng/m <sup>3</sup> )			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>Chromium(Cr)</b>	(μg/m <sup>3</sup> )			<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	
<b>Cadmium(Cd)</b>	(μg/m <sup>3</sup> )			<0.01	<0.01	<0.5	<0.5	<0.5	<0.5	

Graph Showing for SPM of Lakhapur OCP

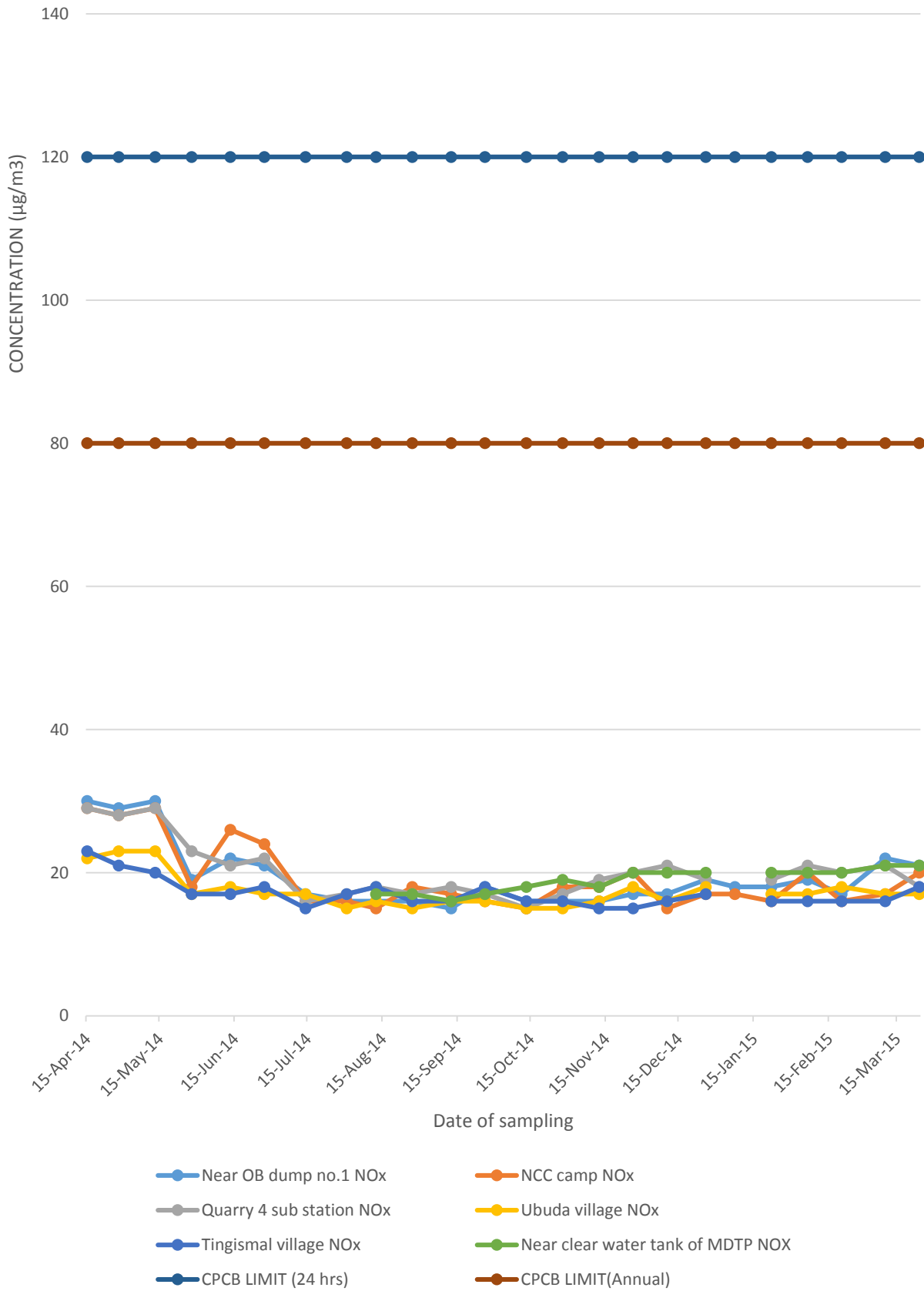




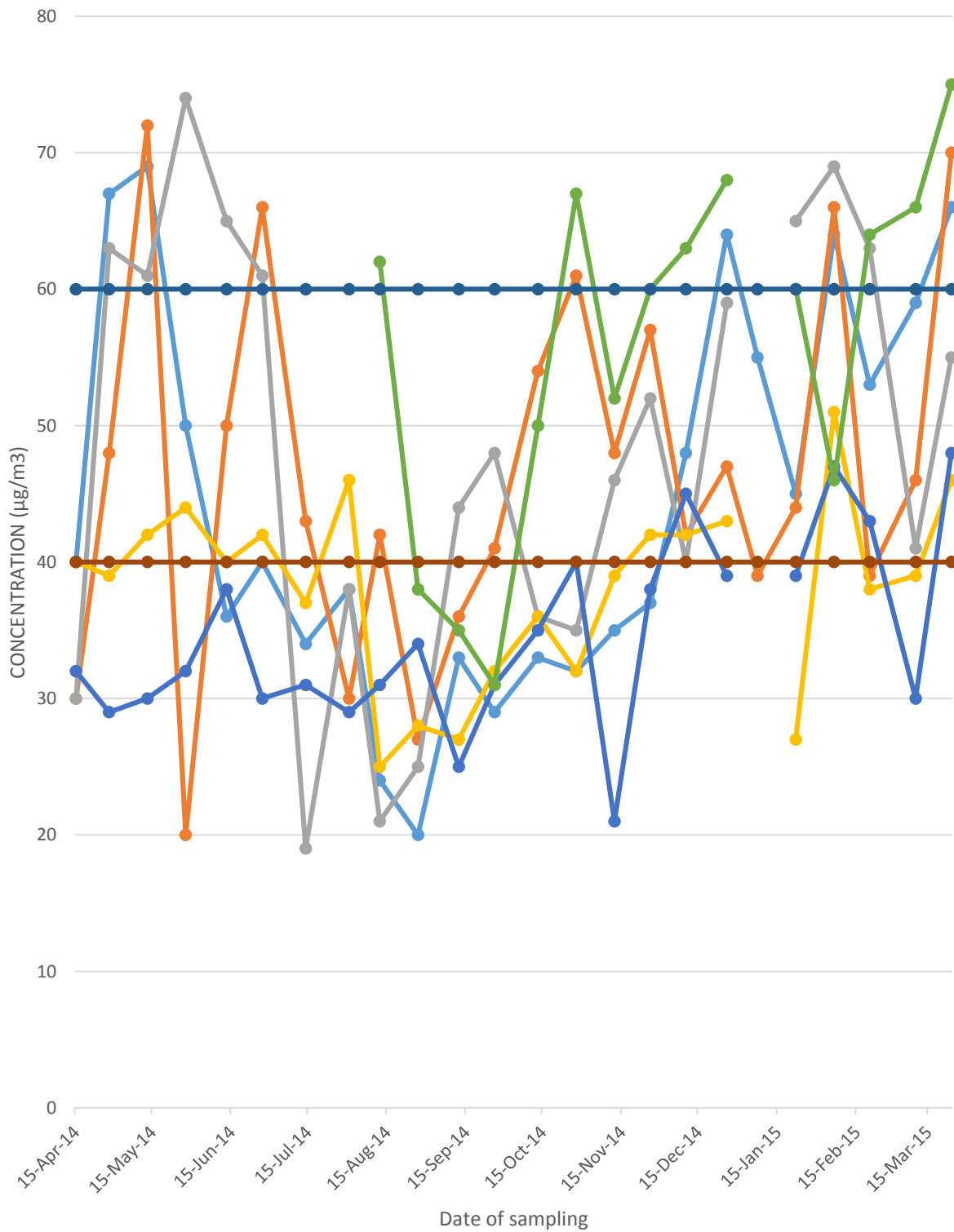
Graph Showing for SO<sub>2</sub> of Lakhanpur OCP



Graph Showing for NOX of Lakhanpur OCP



Graph Showing for PM2.5 of Lakhapur OCP



**Table : 25 Air Quality Data**

**Project : Lilari OCP**

**Monitoring Station : Near Magazine House**

<b>Date of Sampling</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM 2.5</b>	<b>Remarks</b>
14-Apr-14	268	120	18	21	59	East to west hot & sunny
29-Apr-14	221	94	18	22	42	East to west hot & sunny
15-May-14	201	89	17	21	37	West to east hot & sunny
30-May-14	219	86	20	23	35	East to west hot & sunny
11-Jun-14	241	92	19	22	60	East to west hot & sunny
26-Jun-14	195	82	20	23	58	West to east cloudy & rain fall
15-Jul-14	186	89	15	18	34	East to west cloudy & evening rain fall
29-Jul-14	190	85	15	18	51	West to east cloudy & evening rain fall
11-Aug-14	159	86	14	17	29	East to west cloudy & evening rain fall
25-Aug-14	112	50	12	15	31	West to east cloudy & evening rain fall
10-Sep-14	98	41	12	16	32	West to east cloudy & sunny evening rain fall
24-Sep-14	107	52	14	17	38	West to east cloudy & sunny evening rain fall
14-Oct-14	208	97	13	17	38	West to east cloudy & evening rain fall
28-Oct-14	163	79	12	15	37	West to east & sunny
11-Nov-14	251	114	15	18	55	East to west & sunny
26-Nov-14	261	12	15	18	51	East to west sunny & cloudy
10-Dec-14	214	110	13	17	39	East to west & sunny
25-Dec-14	244	101	14	18	35	East to west & sunny
08-Jan-15	277	120	14	17	41	West to east & sunny
23-Jan-15	215	98	13	16	43	West to east & sunny
09-Feb-15	141	64	12	15	50	West to east & sunny
23-Feb-15	251	114	15	18	65	West to east & sunny
07-Mar-15	230	105	14	17	49	West to east & sunny
21-Mar-15	228	107	15	18	47	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM2.5</b>	
<b>Maximum</b>	277	120	20	23	65	
<b>Minimum</b>	98	12	12	15	29	
<b>Average</b>	203.33	86.96	14.96	18.22	44	
<b>95 Percentile</b>	266.95	119.1	19.9	22.9	59.85	
<b>98 Percentile</b>	272.86	120	20	23	62.7	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 26 Air Quality Data**
**Project : Lilari OCP**
**Monitoring Station : Near Old Cold Stock Yard**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
14-Apr-14	344	147	23	27	64	East to west hot & sunny
29-Apr-14	341	149	22	27	59	East to west hot & sunny
15-May-14	384	171	26	29	39	West to east hot & sunny
30-May-14	286	133	21	24	72	East to west hot & sunny
11-Jun-14	303	138	22	26	38	East to west hot & sunny
26-Jun-14	255	106	20	24	50	West to east cloudy & rain fall
15-Jul-14	193	90	14	18	26	East to west cloudy & evening rain fall
29-Jul-14	138	74	13	16	65	West to east cloudy & evening rain fall
11-Aug-14	225	115	17	20	43	East to west cloudy & evening rain fall
25-Aug-14	197	91	14	17	38	West to east cloudy & evening rain fall
10-Sep-14	166	79	14	18	43	West to east cloudy & sunny evening rain fall
24-Sep-14	170	85	15	20	48	West to east cloudy & sunny evening rain fall
14-Oct-14	149	90	14	17	37	West to east cloudy & evening rain fall
28-Oct-14	204	120	12	16	53	West to east & sunny
11-Nov-14	217	139	13	17	63	East to west & sunny
26-Nov-14	274	130	16	19	55	East to west sunny & cloudy
10-Dec-14	270	122	14	18	45	East to west & sunny
25-Dec-14	243	120	15	18	50	East to west & sunny
08-Jan-15	280	123	15	19	57	West to east & sunny
23-Jan-15	226	115	14	17	52	West to east & sunny
09-Feb-15	286	123	15	18	61	West to east & sunny
23-Feb-15	280	116	14	18	57	West to east & sunny
11-Mar-15	305	130	16	21	50	West to east & sunny
25-Mar-15	279	126	14	19	46	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	384	171	26	29	72	
<b>Minimum</b>	138	74	12	16	26	
<b>Average</b>	250.63	118	16.38	20.13	50.46	
<b>95 Percentile</b>	343.55	148.7	22.85	27	64.85	
<b>98 Percentile</b>	365.6	160.88	24.62	28.08	68.78	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

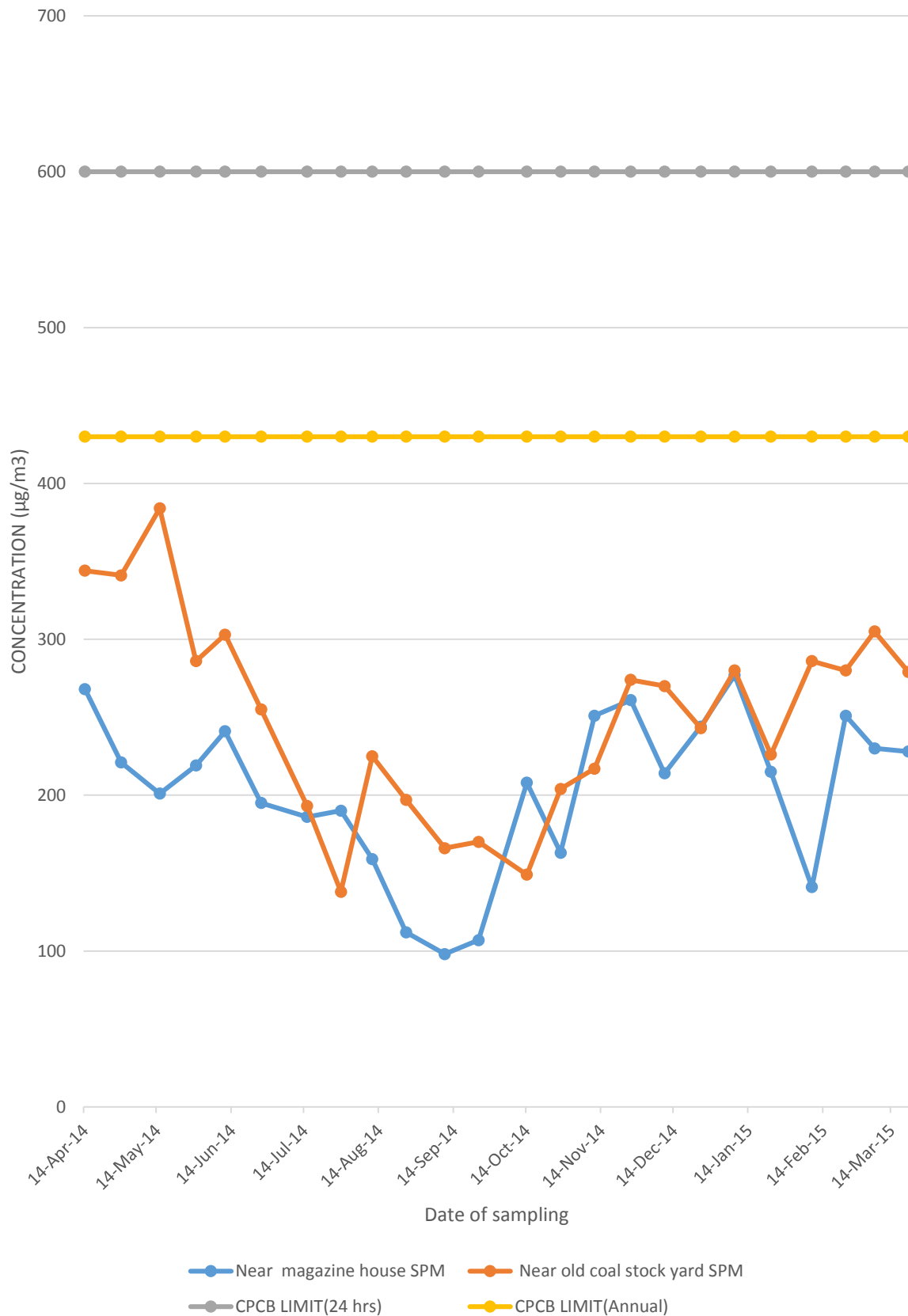
*All values are in  $\mu\text{g}/\text{m}^3$*

**Table : 27 Air Quality Data**
**Project : Lilari OCP**
**Monitoring Station : Near OB Dump No.1**

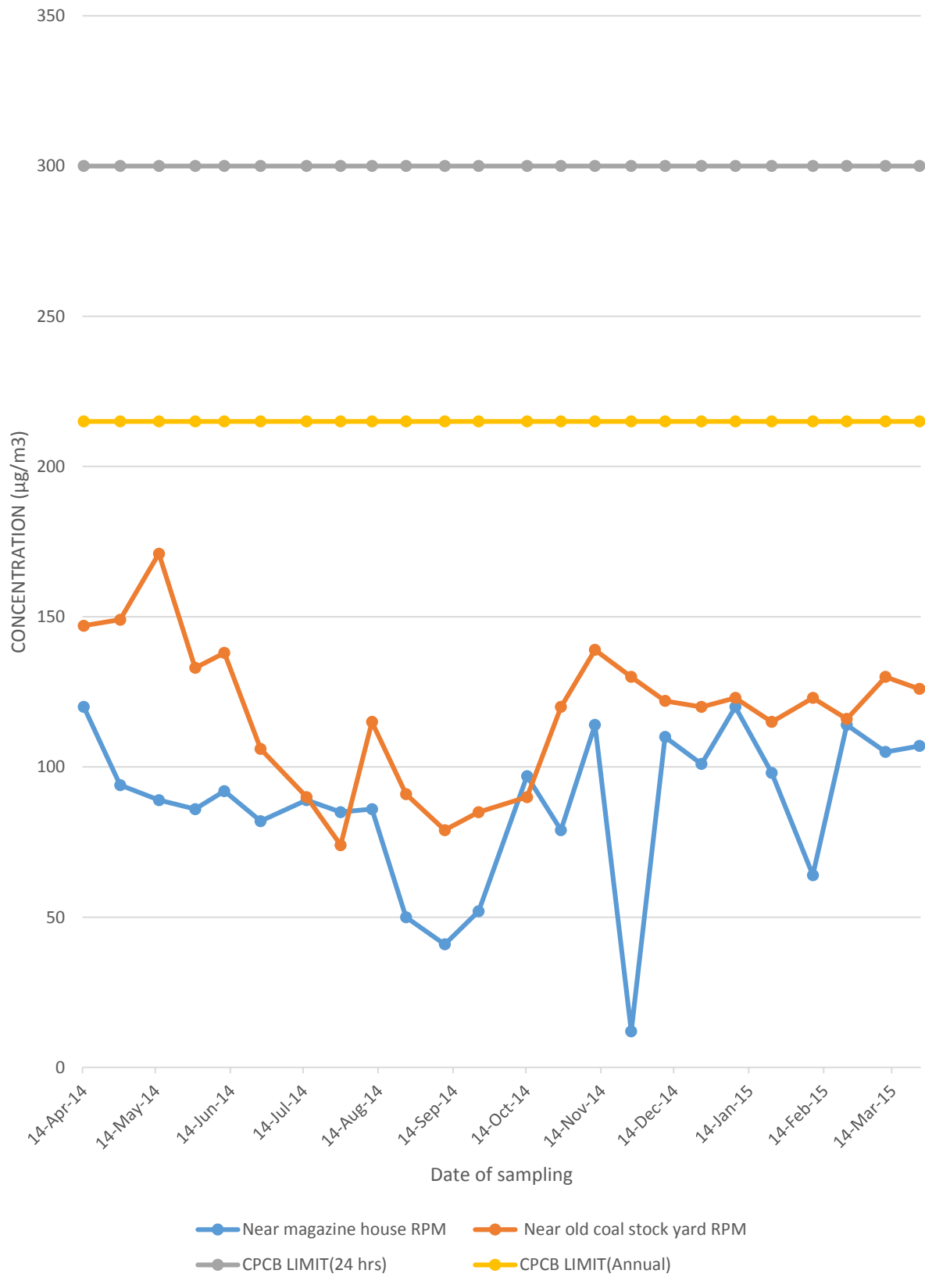
Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
15-Apr-14	354	158	26	30	40	West to east hot & sunny
28-Apr-14	366	164	24	29	67	East to west hot & sunny
15-May-14	372	168	26	30	69	West to east hot & sunny
30-May-14	251	104	16	19	50	West to east cloudy & heavy rain fall
12-Jun-14	290	124	19	22	36	West to east hot & sunny
27-Jun-14	243	101	18	21	40	East to west hot & sunny cloudy evening rain fall
15-Jul-14	212	104	14	17	34	West to east cloudy & Sunny
30-Jul-14	179	80	13	16	38	East to west cloudy & evening rain fall
11-Aug-14	89	38	12	16	24	East to west cloudy & evening rain fall
27-Aug-14	80	34	12	16	20	East to west cloudy & evening rain fall
11-Sep-14	93	36	12	15	33	East to west cloudy & sunny evening rain fall
25-Sep-14	89	42	17	18	29	East to west cloudy & sunny evening rain fall
15-Oct-14	163	73	13	16	33	East to west & sunny
30-Oct-14	134	85	12	16	32	East to west & sunny
11-Nov-14	171	110	13	16	35	East to west & sunny
27-Nov-14	240	109	14	17	37	West to east & sunny
11-Dec-14	251	102	13	17	48	West to east cloudy & sunny.
25-Dec-14	313	141	16	19	64	East to west & sunny
08-Jan-15	289	120	15	18	55	West to east & sunny
23-Jan-15	218	102	14	18	45	West to east & sunny
09-Feb-15	275	134	16	19	64	West to east & sunny
20-Feb-15	269	121	14	17	53	West to east & sunny
07-Mar-15	355	109	17	22	59	West to east & sunny
21-Mar-15	360	141	16	21	66	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	372	168	26	30	69	
<b>Minimum</b>	80	34	12	15	20	
<b>Average</b>	235.67	104.17	15.91	19.3	44.63	
<b>95 Percentile</b>	365.1	163.1	25.8	29.9	66.85	
<b>98 Percentile</b>	369.24	166.16	26	30	68.08	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

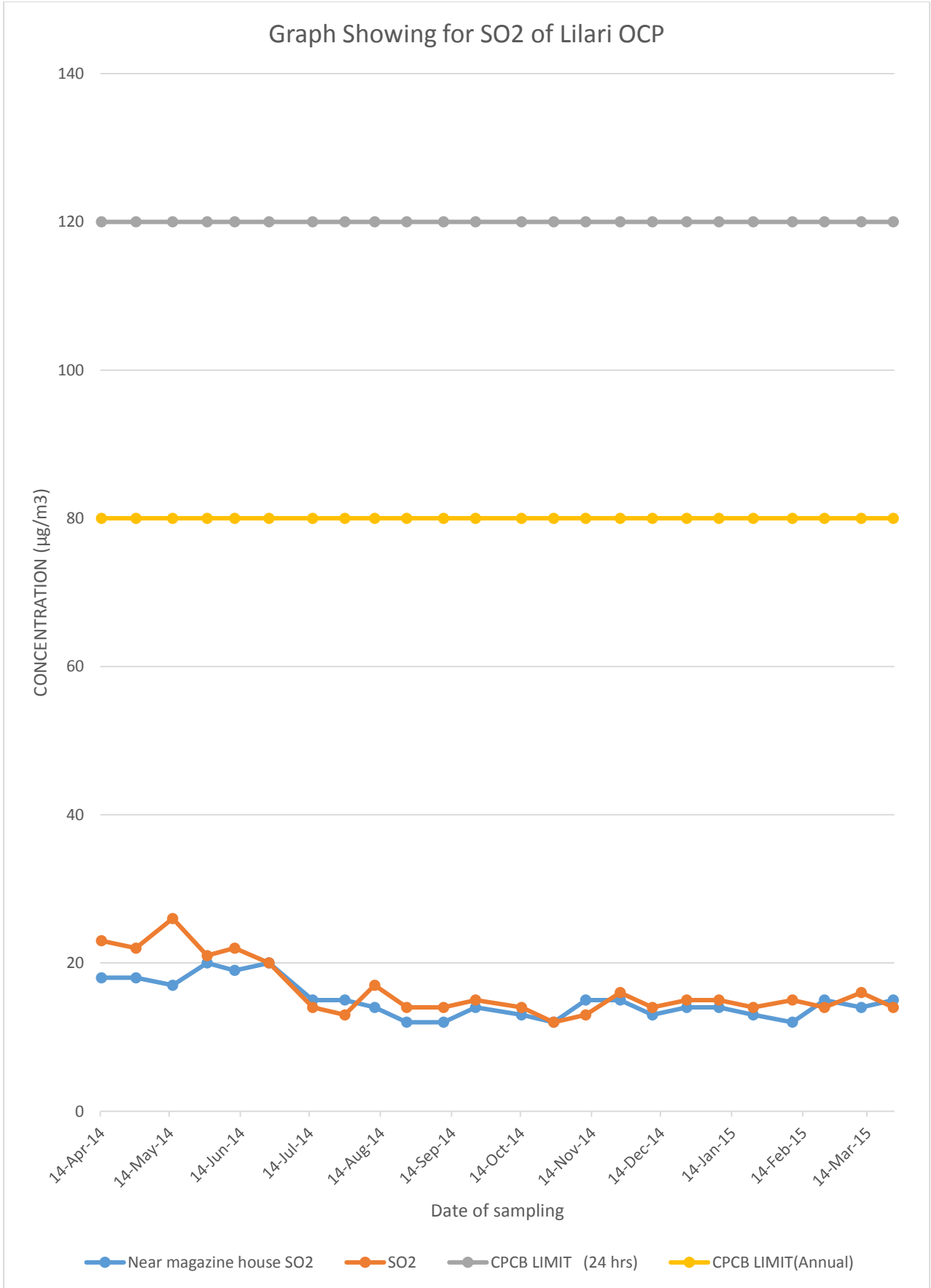
Graph Showing for SPM of Lilari OCP

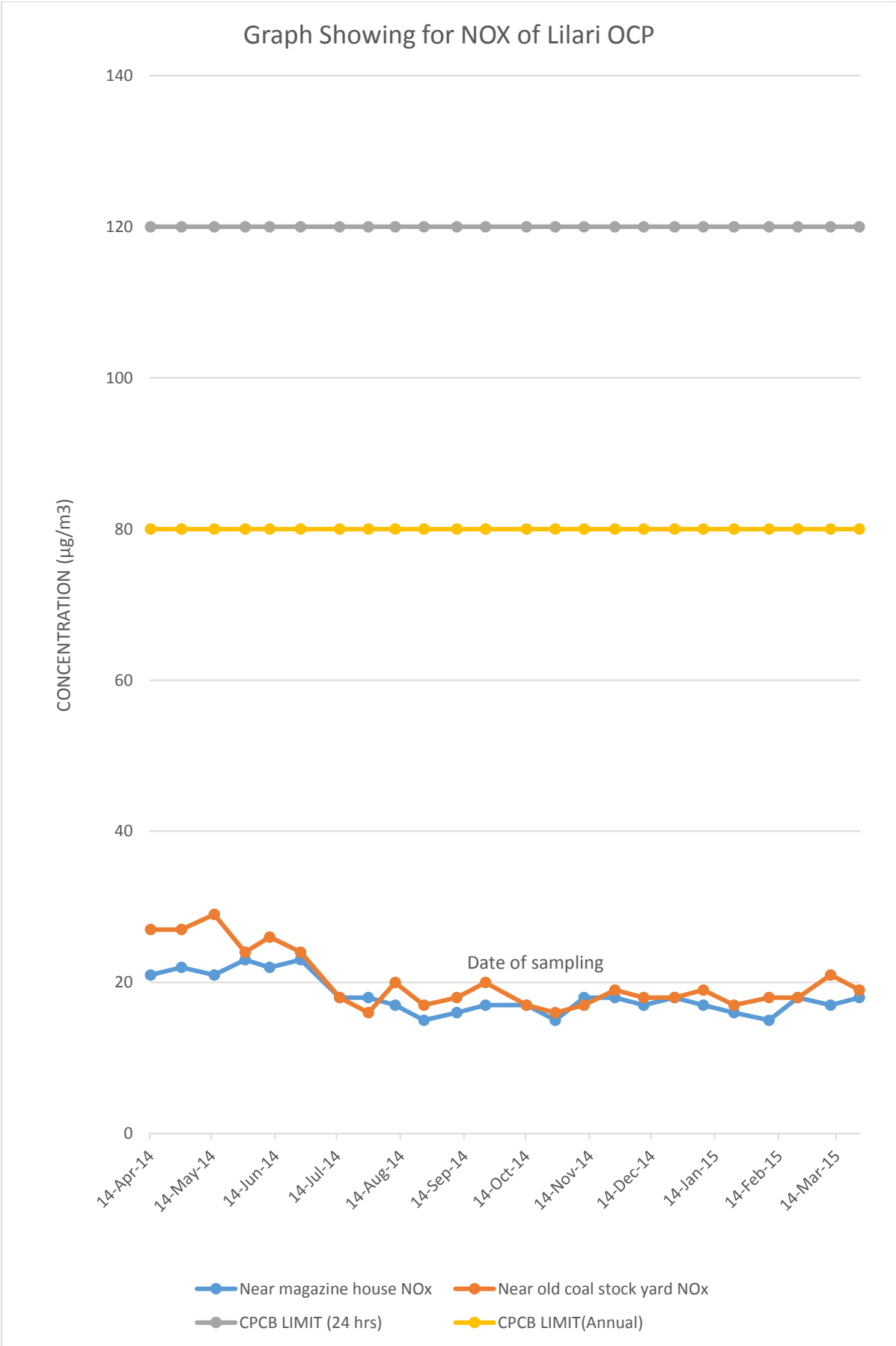


Graph Showing for RPM of Lilari OCP

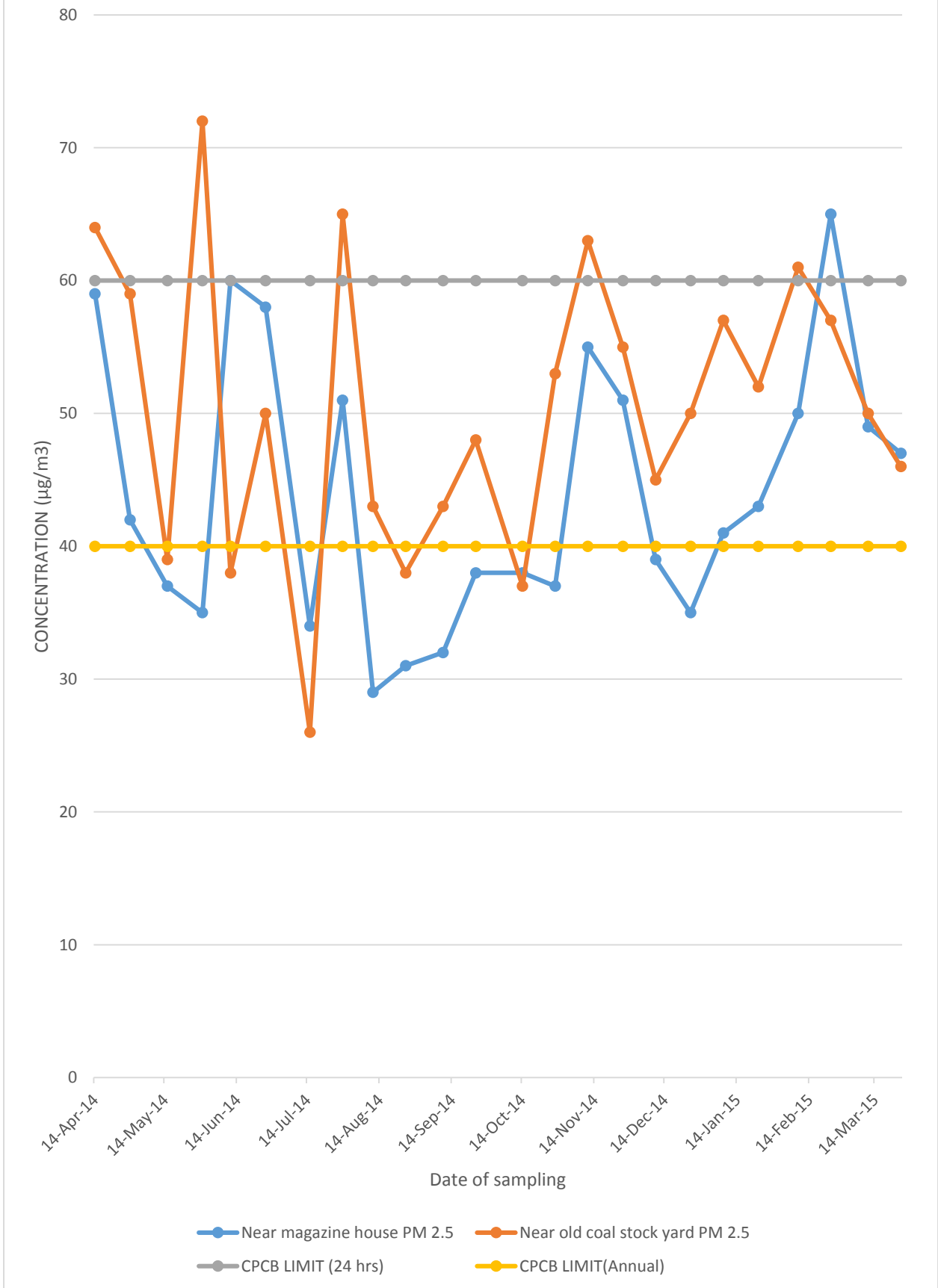


Graph Showing for SO<sub>2</sub> of Lilari OCP





Graph Showing for PM2.5 of Lilari OCP



**Table : 28 Air Quality Data**
**Project : Belpahar OCP**
**Monitoring Station : Bandhabahal Township**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
11-Apr-14	187	88	20	24	50	West to east hot & sunny
26-Apr-14	164	66	16	21	49	West to east hot & sunny
14-May-14	154	60	14	17	25	East to west hot & sunny
29-May-14	90	56	13	16	20	East to west & cloudy heavy rain fall
12-Jun-14	141	74	15	18	57	West to east hot & sunny
26-Jun-14	140	65	15	18	52	West to east sunny & cloudy evening rain fall
14-Jul-14	144	67	14	17	26	West to east cloudy & Sunny
30-Jul-14	98	39	12	15	32	East to west cloudy & evening rain fall
12-Aug-14	99	37	13	17	16	East to west sunny & cloudy
27-Aug-14	84	41	12	15	29	East to west cloudy & evening heavy rain fall
10-Sep-14	76	35	13	16	25	West to east cloudy & sunny evening rain fall
24-Sep-14	83	36	15	17	26	West to east cloudy & sunny evening rain fall
15-Oct-14	189	94	14	17	44	East to west & sunny
28-Oct-14	174	81	13	16	40	West to east & sunny
13-Nov-14	192	90	12	15	47	East to west & sunny
28-Nov-14	197	96	13	16	45	East to west & sunny
12-Dec-14	181	84	12	15	46	East to west & cloudy
29-Dec-14	175	81	13	17	37	East to west & sunny
09-Jan-15	169	68	12	15	34	East to west sunny & cloudy
24-Jan-15	197	83	14	17	52	East to west & sunny
10-Feb-15	210	96	14	17	38	East to west & sunny
24-Feb-15	196	93	13	17	41	East to west & sunny
12-Mar-15	230	108	15	18	44	East to west & sunny
26-Mar-15	234	103	13	17	47	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	234	108	20	24	57	
<b>Minimum</b>	76	35	12	15	16	
<b>Average</b>	158.5	72.54	13.75	17	38.42	
<b>95 Percentile</b>	227	101.95	15.85	20.55	52	
<b>98 Percentile</b>	232.16	105.7	18.16	22.62	54.7	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

### Table : 29 Air Quality Data

#### Project : Belpahar OCP

#### Monitoring Station : Near MDTP

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
14-Apr-14	360	155	26	29	32	East to west hot & sunny
30-Apr-14	320	138	22	25	45	West to east hot & sunny
14-May-14	352	154	25	28	62	East to west hot & sunny
29-May-14	186	98	15	19	30	East to west & cloudy heavy rain fall
13-Jun-14	282	124	18	22	51	East to west hot & sunny
27-Jun-14	237	106	17	20	84	East to west hot & sunny cloudy evening rain fall
15-Jul-14	192	86	15	18	34	West to east cloudy & rain fall
30-Jul-14	182	89	14	18	36	East to west cloudy & evening rain fall
12-Aug-14	234	124	18	21	38	East to west sunny & cloudy
28-Aug-14	199	83	12	16	36	West to east cloudy & evening rain fall
11-Sep-14	175	69	14	17	46	East to west cloudy & sunny evening rain fall
25-Sep-14	182	72	16	18	48	East to west cloudy & sunny evening rain fall
14-Oct-14	125	79	13	17	49	West to east cloudy & evening rain fall
29-Oct-14	247	114	14	17	55	West to east & sunny
13-Nov-14	253	131	16	19	31	East to west & sunny
28-Nov-14	302	152	16	21	52	East to west & sunny
12-Dec-14	311	140	16	20	72	East to west & cloudy
29-Dec-14	340	138	17	20	70	East to west & sunny
09-Jan-15	341	140	16	20	58	East to west sunny & cloudy
24-Jan-15	350	137	16	21	66	East to west & sunny
10-Feb-15	361	135	15	20	68	East to west & sunny
24-Feb-15	350	129	16	20	68	East to west & sunny
12-Mar-15	354	138	18	22	55	East to west & sunny
26-Mar-15	344	140	15	20	70	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	361	155	26	29	84	
<b>Minimum</b>	125	69	12	16	30	
<b>Average</b>	274.13	119.63	16.67	20.33	52.33	
<b>95 Percentile</b>	359.1	153.7	24.55	27.55	71.7	
<b>98 Percentile</b>	360.54	154.54	25.54	28.54	78.48	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 30 Air Quality Data**
**Project : Belpahar OCP**
**Monitoring Station : Near Quarry No-5**

Date of Sampling	SPM	RPM	SO2	NOx	PM2.5	Remarks
14-Apr-14	340	141	21	24	55	East to west hot & sunny
30-Apr-14	334	143	20	24	62	West to east hot & sunny
09-May-14	320	132	19	23	57	West to east hot & sunny evening rainfall
24-May-14	323	128	20	24	59	East to west hot & sunny
13-Jun-14	329	125	21	25	45	East to west hot & sunny
27-Jun-14	246	107	15	20	42	East to west sunny & cloudy evening rain fall
15-Jul-14	201	93	14	18	38	East to west cloudy & evening rain fall
31-Jul-14	178	90	15	19	41	West to east cloudy & evening rain fall
13-Aug-14	236	124	16	20	39	West to east sunny & cloudy
27-Aug-14	201	87	13	16	32	East to west cloudy & evening rain fall
12-Sep-14	136	85	13	18	37	West to east sunny & cloudy
26-Sep-14	145	91	17	18	41	West to east sunny & cloudy
14-Oct-14	215	98	14	17	29	West to east cloudy & evening rain fall
29-Oct-14	291	130	15	19	66	East to west & sunny
13-Nov-14	280	127	15	18	49	East to west & sunny
28-Nov-14	351	134	16	21	59	East to west & sunny
12-Dec-14	301	122	13	17	45	East to west & cloudy
29-Dec-14	280	118	15	18	39	East to west & sunny
09-Jan-15	279	121	14	18	41	East to west sunny & cloudy
24-Jan-15	293	131	15	19	58	East to west & sunny
10-Feb-15	320	133	16	19	68	East to west & sunny
24-Feb-15	321	126	15	19	55	East to west & sunny
12-Mar-15	351	145	18	22	64	East to west & sunny
26-Mar-15	334	130	15	18	54	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM2.5</b>	
<b>Maximum</b>	351	145	21	25	68	
<b>Minimum</b>	136	85	13	16	29	
<b>Average</b>	275.21	119.21	16.04	19.75	48.96	
<b>95 Percentile</b>	349.35	142.7	20.85	24	65.7	
<b>98 Percentile</b>	351	144.08	21	24.54	67.08	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 31 Air Quality Data**

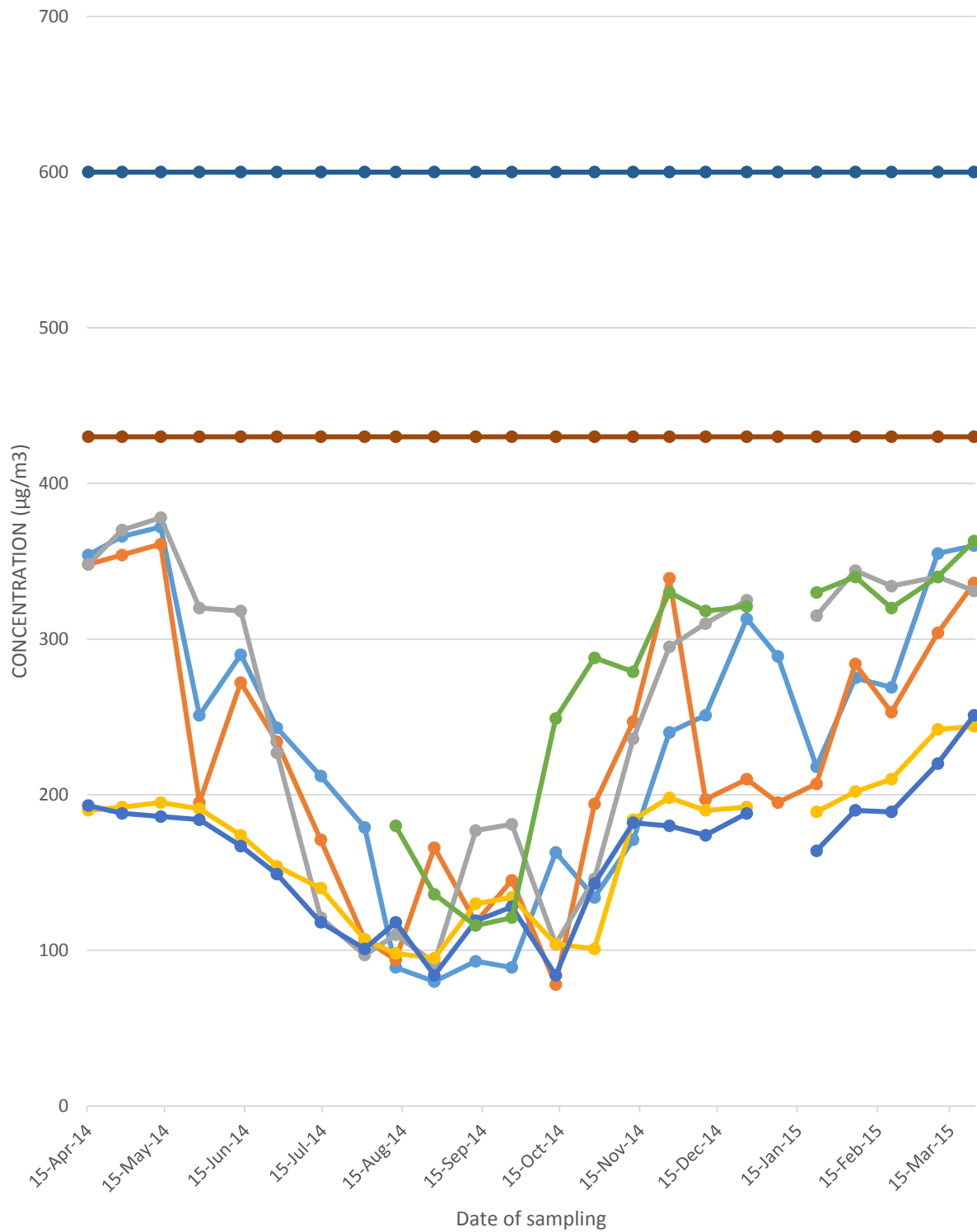
**Project : Belpahar OCP**

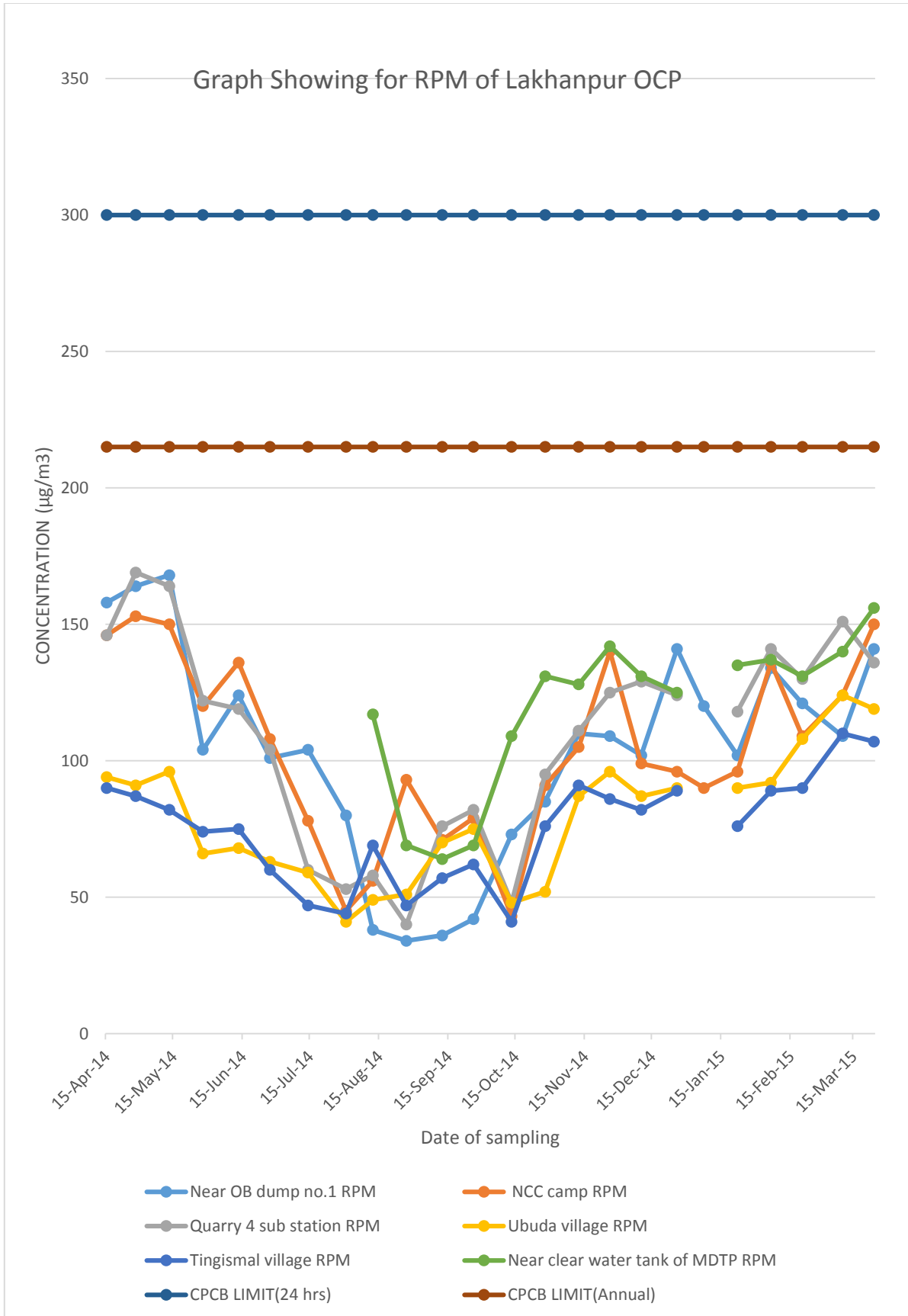
**Monitoring Station : Quarry No-3 Junction(Tiffin point)**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
14-Apr-14	324	129	20	23	58	East to west hot & sunny
30-Apr-14	326	134	22	26	63	West to east hot & sunny
09-May-14	311	123	20	24	65	West to east hot & sunny evening rainfall
24-May-14	334	128	22	25	68	West to east hot & sunny
13-Jun-14	324	120	20	23	41	East to west hot & sunny
27-Jun-14	258	112	16	19	39	West to east sunny & cloudy rain fall
15-Jul-14	210	99	15	19	27	East to west cloudy & evening rain fall
31-Jul-14	195	92	15	18	33	West to east cloudy & evening rain fall
13-Aug-14	220	117	17	20	40	West to east sunny & cloudy
28-Aug-14	205	103	14	18	35	West to east cloudy & evening rain fall
12-Sep-14	150	98	14	17	39	West to east sunny & cloudy
26-Sep-14	155	102	16	17	42	West to east sunny & cloudy
15-Oct-14	286	140	15	19	36	East to west & sunny
30-Oct-14	308	134	16	20	71	East to west & sunny
13-Nov-14	315	149	16	20	66	East to west & sunny
27-Nov-14	340	143	15	20	63	West to east & sunny
12-Dec-14	322	128	14	19	64	East to west & cloudy
29-Dec-14	345	140	17	21	71	East to west & sunny
09-Jan-15	301	116	15	18	63	East to west sunny & cloudy
24-Jan-15	315	114	14	18	51	East to west & sunny
10-Feb-15	309	120	15	18	53	East to west & sunny
24-Feb-15	289	119	14	18	56	East to west & sunny
12-Mar-15	317	133	16	20	58	East to west & sunny
26-Mar-15	250	116	14	17	57	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	345	149	22	26	71	
<b>Minimum</b>	150	92	14	17	27	
<b>Average</b>	279.54	121.21	16.33	19.88	52.46	
<b>95 Percentile</b>	339.1	142.55	21.7	24.85	70.55	
<b>98 Percentile</b>	342.7	146.24	22	25.54	71	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

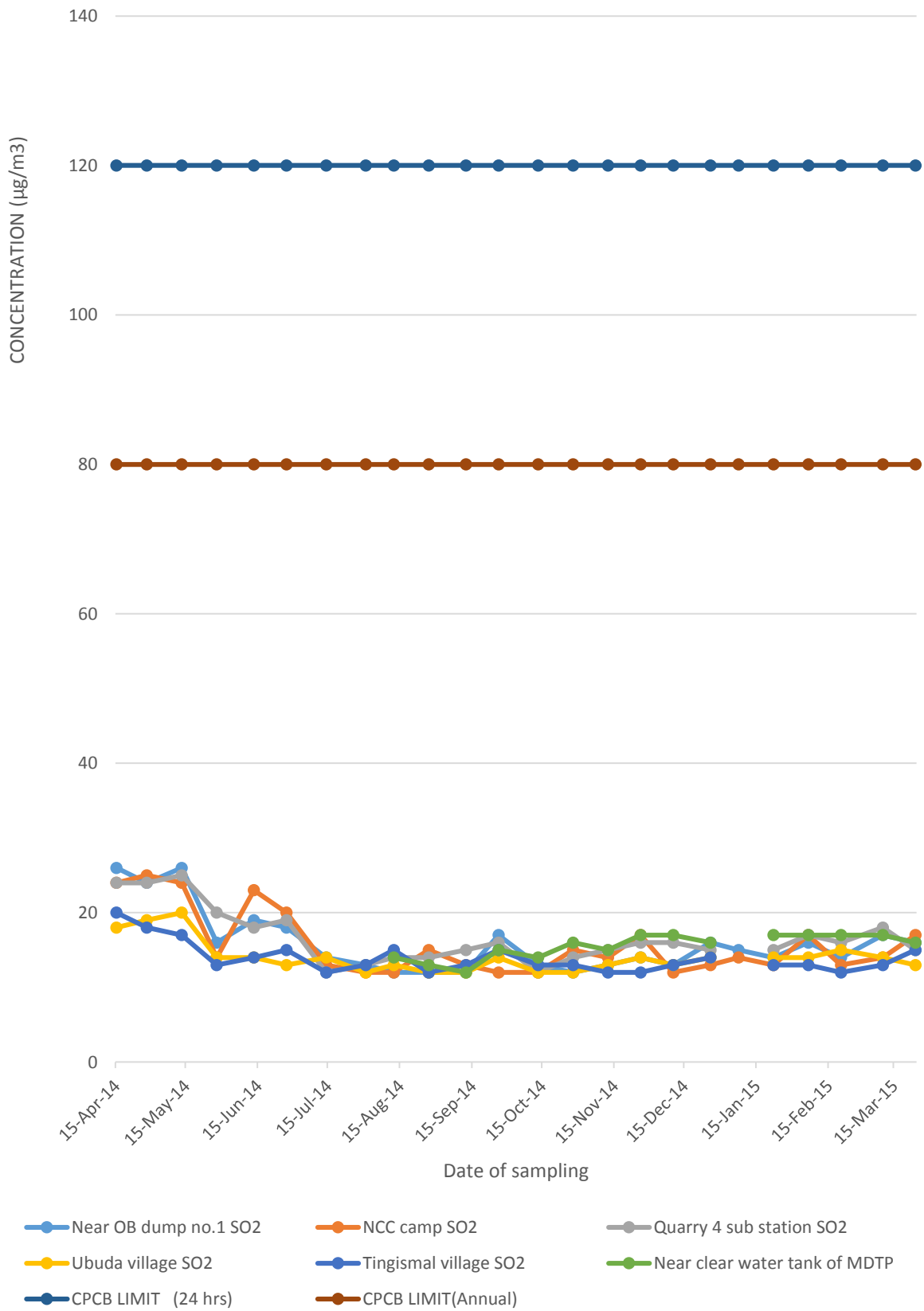
*All values are in  $\mu\text{g}/\text{m}^3$*

Graph Showing for SPM of Lakhanpur OCP

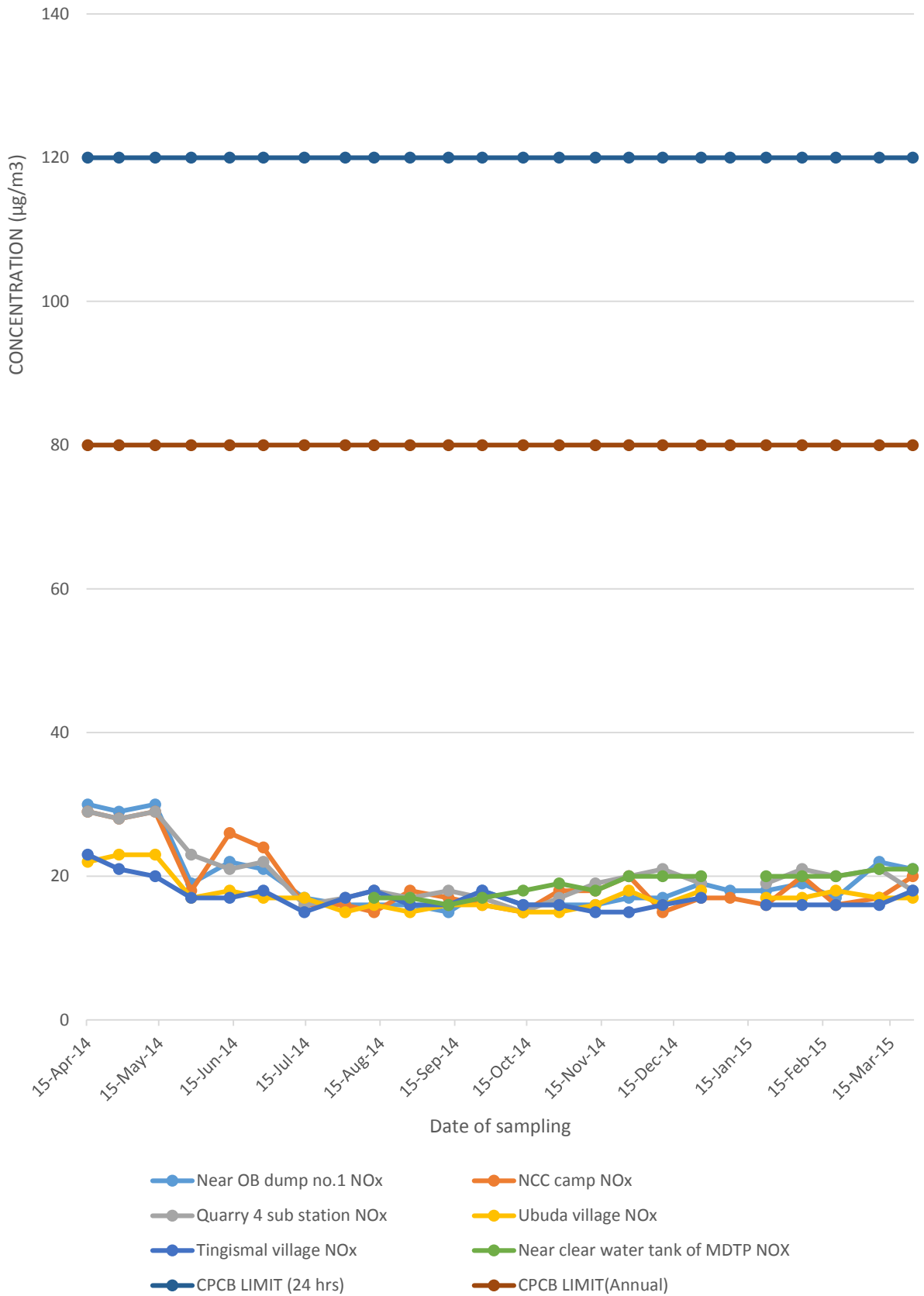




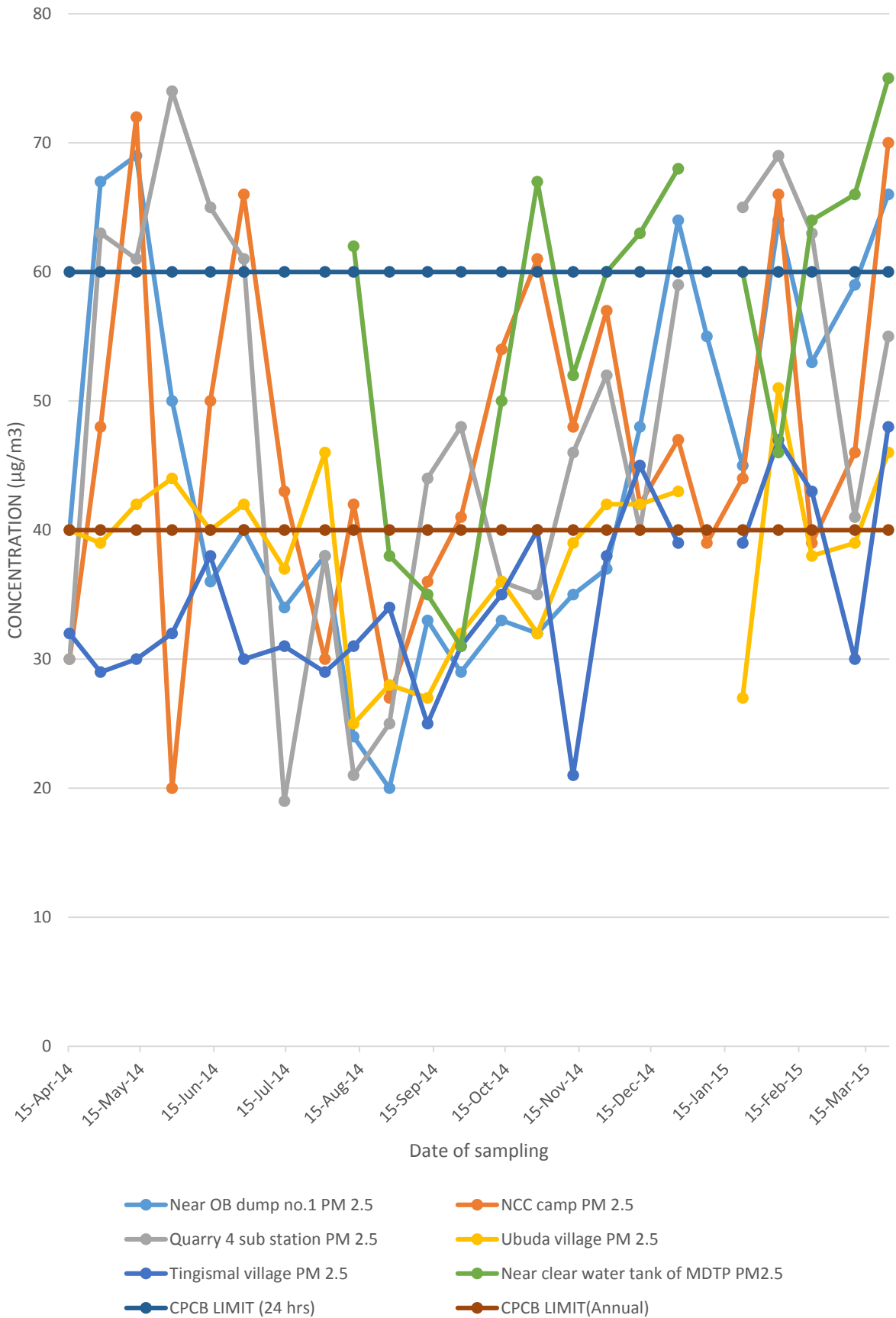
Graph Showing for SO<sub>2</sub> of Lakhanpur OCP



Graph Showing for NOX of Lakhanpur OCP



Graph Showing for PM2.5 of Lakhapur OCP



**Table : 31 Air Quality Data**
**Project : Kulda OCP**
**Monitoring Station : Barbali village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
08-Apr-14	186	94	16	19	49	East to west hot & sunny
22-Apr-14	182	86	18	21	35	East to west hot & sunny
06-May-14	191	90	16	19	30	East to west hot & sunny
21-May-14	185	78	15	18	31	East to west hot & sunny
04-Jun-14	182	94	17	20	57	East to west hot & sunny
18-Jun-14	164	80	16	19	35	East to west sunny & cloudy rain fall
03-Jul-14	133	62	12	16	37	East to west cloudy & rain fall
18-Jul-14	136	38	12	15	40	West to east cloudy & heavy rain fall
05-Aug-14	110	44	13	16	25	West to east cloudy & heavy rain fall
19-Aug-14	95	41	13	17	29	East to west cloudy & rain fall
02-Sep-14	69	35	12	16	21	East to west cloudy & sunny evening rain fall
16-Sep-14	75	39	16	14	24	East to west cloudy & sunny evening rain fall
07-Oct-14	179	81	14	17	29	East to west sunny & cloudy
20-Oct-14	154	63	12	15	32	East to west sunny & cloudy
04-Nov-14	192	84	13	16	35	West to east sunny & cloudy
20-Nov-14	190	90	14	17	38	East to west & sunny
03-Dec-14	174	84	13	16	44	West to east & sunny
18-Dec-14	190	90	12	15	37	West to east cloudy & sunny.
02-Jan-15	181	96	13	16	35	West to east cloudy & sunny.
17-Jan-15	171	85	12	16	42	West to east & sunny.
03-Feb-15	193	94	14	17	45	West to east & sunny.
17-Feb-15	198	90	13	17	36	West to east & sunny.
02-Mar-15	210	108	14	17	43	West to east & sunny & cloudy
16-Mar-15	240	110	15	18	46	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	240	110	18	21	57	
<b>Minimum</b>	69	35	12	14	21	
<b>Average</b>	165.83	77.33	13.96	16.96	36.46	
<b>95 Percentile</b>	208.2	106.2	16.85	19.85	48.55	
<b>98 Percentile</b>	226.2	109.08	17.54	20.54	53.32	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 32 Air Quality Data**
**Project : Kulda OCP**
**Monitoring Station : Karlikachhar village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
08-Apr-14	159	74	15	18	42	East to west hot & sunny
22-Apr-14	154	69	16	19	32	East to west hot & sunny
05-May-14	158	72	14	18	30	East to west hot & sunny
19-May-14	154	70	13	16	32	East to west hot & sunny
03-Jun-14	142	65	13	17	30	East to west hot & sunny
17-Jun-14	144	63	13	17	32	East to west sunny & cloudy
01-Jul-14	120	55	12	15	20	East to west cloudy & rain fall
16-Jul-14	103	46	14	17	30	East to west cloudy & heavy rain fall
05-Aug-14	81	36	12	15	20	West to east cloudy & heavy rain fall
18-Aug-14	82	38	13	16	18	East to west cloudy & rain fall
02-Sep-14	104	68	13	17	29	East to west cloudy & sunny evening rain fall
16-Sep-14	110	70	15	18	30	East to west cloudy & sunny evening rain fall
07-Oct-14	158	77	13	16	34	East to west sunny & cloudy
21-Oct-14	147	64	12	15	30	West to east & sunny
05-Nov-14	174	73	12	15	28	East to west & sunny
20-Nov-14	180	78	13	16	46	East to west & sunny
03-Dec-14	173	80	12	15	38	West to east & sunny
18-Dec-14	180	76	12	16	35	West to east cloudy & sunny.
02-Jan-15	167	66	12	15	31	West to east cloudy & sunny.
17-Jan-15	154	65	12	15	36	West to east & sunny.
03-Feb-15	189	89	15	18	40	West to east & sunny.
17-Feb-15	183	82	12	15	51	West to east & sunny.
03-Mar-15	206	103	13	17	42	East to west sunny & cloudy
17-Mar-15	231	111	14	17	39	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	231	111	16	19	51	
<b>Minimum</b>	81	36	12	15	18	
<b>Average</b>	152.21	70.42	13.13	16.38	33.13	
<b>95 Percentile</b>	203.45	100.9	15	18	45.4	
<b>98 Percentile</b>	219.5	107.32	15.54	18.54	48.7	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

*All values are in µg/m<sup>3</sup>*

**Table : 33 Air Quality Data**
**Project : Kulda OCP**
**Monitoring Station : Tikilipara village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remark
04-Apr-14	174	80	15	19	26	East to west hot & sunny
23-Apr-14	184	87	16	20	28	West to east hot & sunny
07-May-14	156	66	15	18	48	West to east hot & sunny
22-May-14	164	74	16	19	55	East to west hot & sunny
05-Jun-14	168	72	15	18	48	East to west hot & sunny
19-Jun-14	151	64	15	18	49	West to east cloudy & heavy rain fall
02-Jul-14	119	47	12	15	31	East to west cloudy & rain fall
17-Jul-14	86	47	12	16	23	West to east cloudy & heavy rain fall
04-Aug-14	90	47	14	17	28	East to west cloudy & heavy rain fall
18-Aug-14	70	46	12	15	13	East to west cloudy & rain fall
03-Sep-14	130	75	13	16	33	East to west cloudy & heavy rain fall
17-Sep-14	135	78	16	17	31	East to west cloudy & heavy rain fall
07-Oct-14	164	74	12	16	42	East to west sunny & cloudy
21-Oct-14	160	70	14	17	46	West to east & sunny
05-Nov-14	188	84	13	16	25	East to west & sunny
19-Nov-14	193	88	14	17	33	West to east & sunny
03-Dec-14	154	87	12	15	41	West to east & sunny
17-Dec-14	188	90	14	17	43	East to west sunny & cloudy
02-Jan-15	157	64	12	15	30	West to east cloudy & sunny.
17-Jan-15	177	82	13	16	43	West to east & sunny.
03-Feb-15	143	69	13	16	30	West to east & sunny.
17-Feb-15	190	84	14	17	50	West to east & sunny.
03-Mar-15	230	112	16	19	46	East to west sunny & cloudy
17-Mar-15	210	98	13	16	40	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	230	112	16	20	55	
<b>Minimum</b>	70	46	12	15	13	
<b>Average</b>	157.54	74.38	13.79	16.88	36.75	
<b>95 Percentile</b>	207.45	96.8	16	19	49.85	
<b>98 Percentile</b>	220.8	105.56	16	19.54	52.7	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 34 Air Quality Data**
**Project : Kulda OCP**
**Monitoring Station : Siarmal village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
03-Apr-14	182	90	17	20	23	West to east hot & sunny
22-Apr-14	174	73	18	21	25	East to west hot & sunny
06-May-14	168	35	13	17	58	East to west hot & sunny
20-May-14	175	49	14	18	40	East to west hot & sunny
05-Jun-14	181	62	13	18	35	East to west hot & sunny
19-Jun-14	166	63	14	17	47	West to east cloudy & heavy rain fall
01-Jul-14	130	56	13	16	28	East to west cloudy & rain fall
16-Jul-14	105	35	14	17	51	West to east cloudy & heavy rain fall
05-Aug-14	116	42	13	16	44	West to east cloudy & heavy rain fall
19-Aug-14	101	48	14	18	30	East to west cloudy & rain fall
03-Sep-14	98	54	14	17	32	East to west cloudy & heavy rain fall
17-Sep-14	110	52	11	16	28	East to west cloudy & heavy rain fall
06-Oct-14	105	75	12	15	33	West to east sunny & cloudy
21-Oct-14	101	52	12	15	38	West to east & sunny
05-Nov-14	115	70	12	15	35	East to west & sunny
19-Nov-14	176	83	12	16	42	West to east & sunny
03-Dec-14	161	74	13	16	42	West to east & sunny
18-Dec-14	191	88	13	17	44	West to east cloudy & sunny.
02-Jan-15	184	75	14	17	43	West to east cloudy & sunny.
17-Jan-15	190	81	14	18	38	West to east & sunny.
03-Feb-15	195	89	14	18	47	West to east & sunny.
17-Feb-15	188	83	13	16	35	West to east & sunny.
03-Mar-15	221	102	14	18	41	East to west sunny & cloudy
17-Mar-15	240	115	15	18	43	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	240	115	18	21	58	
<b>Minimum</b>	98	35	11	15	23	
<b>Average</b>	157.21	68.58	13.58	17.08	38.42	
<b>95 Percentile</b>	217.1	100.2	16.7	19.7	50.4	
<b>98 Percentile</b>	231.26	109.02	17.54	20.54	54.78	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

*All values are in µg/m<sup>3</sup>*

### Table : 35 Air Quality Data

#### Project : Kulda OCP

#### Monitoring Station : Near Kulda P.O

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remarks
09-Apr-14	360	158	24	29	39	West to east hot & sunny
21-Apr-14	344	152	22	26	45	West to east hot & sunny
05-May-14	375	166	25	28	60	East to west hot & sunny
21-May-14	364	152	24	29	62	East to west hot & sunny
04-Jun-14	351	146	23	29	52	East to west hot & sunny
18-Jun-14	261	115	19	23	75	East to west sunny & cloudy rain fall
01-Jul-14	217	98	16	19	37	East to west cloudy & rain fall
16-Jul-14	174	86	14	18	66	East to west cloudy & heavy rain fall
05-Aug-14	168	77	15	18	59	West to east cloudy & heavy rain fall
19-Aug-14	210	102	15	18	54	East to west cloudy & rain fall
02-Sep-14	187	84	15	18	47	East to west cloudy & sunny evening rain fall
16-Sep-14	180	84	14	19	44	East to west cloudy & sunny evening rain fall
07-Oct-14	284	127	15	19	59	East to west sunny & cloudy
20-Oct-14	315	136	16	19	47	East to west sunny & cloudy
04-Nov-14	320	146	16	19	58	West to east sunny & cloudy
20-Nov-14	340	120	15	20	61	East to west & sunny
03-Dec-14	345	136	17	20	56	West to east & sunny
18-Dec-14	351	143	17	21	66	West to east cloudy & sunny.
01-Jan-15	330	127	16	19	60	East to west & sunny
16-Jan-15	351	138	17	20	59	East to west & sunny
02-Feb-15	361	144	16	19	69	East to west & sunny
16-Feb-15	360	146	18	21	70	East to west & sunny
02-Mar-15	354	149	17	21	63	West to east sunny & cloudy
16-Mar-15	363	148	18	22	68	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	375	166	25	29	75	
<b>Minimum</b>	168	77	14	18	37	
<b>Average</b>	302.71	128.33	17.67	21.42	57.33	
<b>95 Percentile</b>	363.85	157.1	24	29	69.85	
<b>98 Percentile</b>	369.94	162.32	24.54	29	72.7	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

*All values are in µg/m<sup>3</sup>*

**Table : 36 Air Quality Data**

**Project : Kulda OCP**

**Monitoring Station : Near CHP**

Date of Sampling	SPM	RPM	SO2	NOx	PM 2.5	Remarks
07-Apr-14	354	147	23	27	84	West to east hot & sunny
21-Apr-14	371	164	25	29	82	West to east hot & sunny
05-May-14	369	160	26	29	70	East to west hot & sunny
19-May-14	372	164	25	30	68	East to west hot & sunny
03-Jun-14	353	151	24	28	75	East to west hot & sunny
17-Jun-14	291	126	18	23	78	East to west sunny & cloudy
03-Jul-14	206	102	15	18	51	East to west cloudy & rain fall
18-Jul-14	188	74	15	18	29	East to west cloudy & heavy rain fall
04-Aug-14	193	81	16	19	53	East to west cloudy & heavy rain fall
18-Aug-14	215	114	16	20	46	East to west cloudy & rain fall
02-Sep-14	190	92	14	19	40	East to west cloudy & sunny evening rain fall
16-Sep-14	200	98	12	21	37	East to west cloudy & sunny evening rain fall
06-Oct-14	276	134	16	20	39	West to east sunny & cloudy
20-Oct-14	295	129	15	18	51	East to west sunny & cloudy
04-Nov-14	340	154	15	19	70	West to east sunny & cloudy
20-Nov-14	320	140	15	18	64	East to west & sunny
02-Dec-14	322	129	15	18	65	East to west & sunny
17-Dec-14	330	130	16	20	62	East to west sunny & cloudy
01-Jan-15	317	119	15	18	56	East to west & sunny
16-Jan-15	340	143	17	21	64	East to west & sunny
02-Feb-15	358	151	17	21	71	East to west & sunny
16-Feb-15	330	139	16	20	61	East to west & sunny
02-Mar-15	310	106	15	18	54	West to east sunny & cloudy
16-Mar-15	345	151	17	21	63	West to east & sunny
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM 2.5</b>	
<b>Maximum</b>	372	164	26	30	84	
<b>Minimum</b>	188	74	12	18	29	
<b>Average</b>	299	129	17	21.4	59.708	
<b>95 Percentile</b>	371	163	25	29	81.4	
<b>98 Percentile</b>	372	164	26	29.5	83.08	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

*All values are in µg/m<sup>3</sup>*

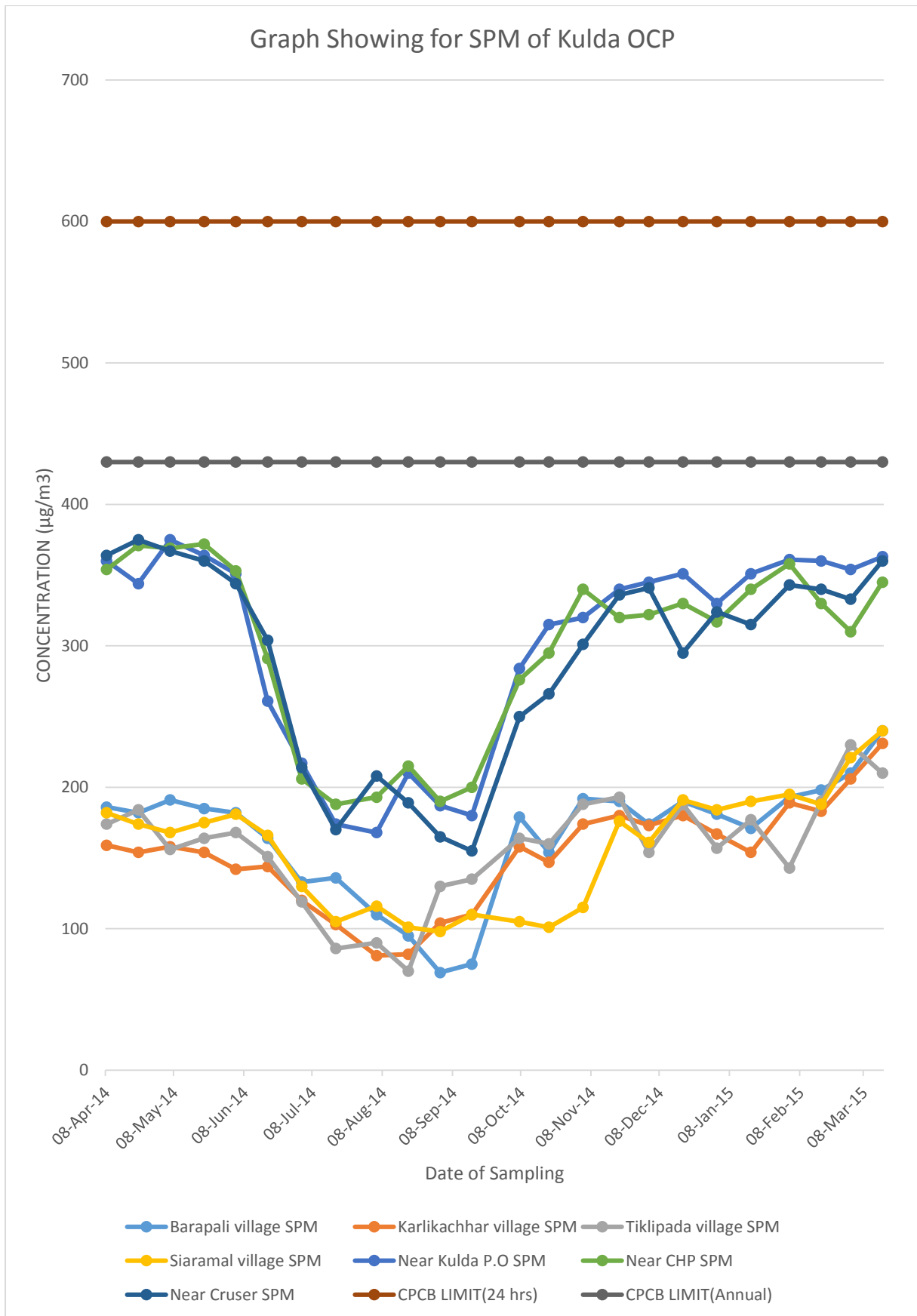
**Table : 37 Air Quality Data**

**Project : Kulda OCP**

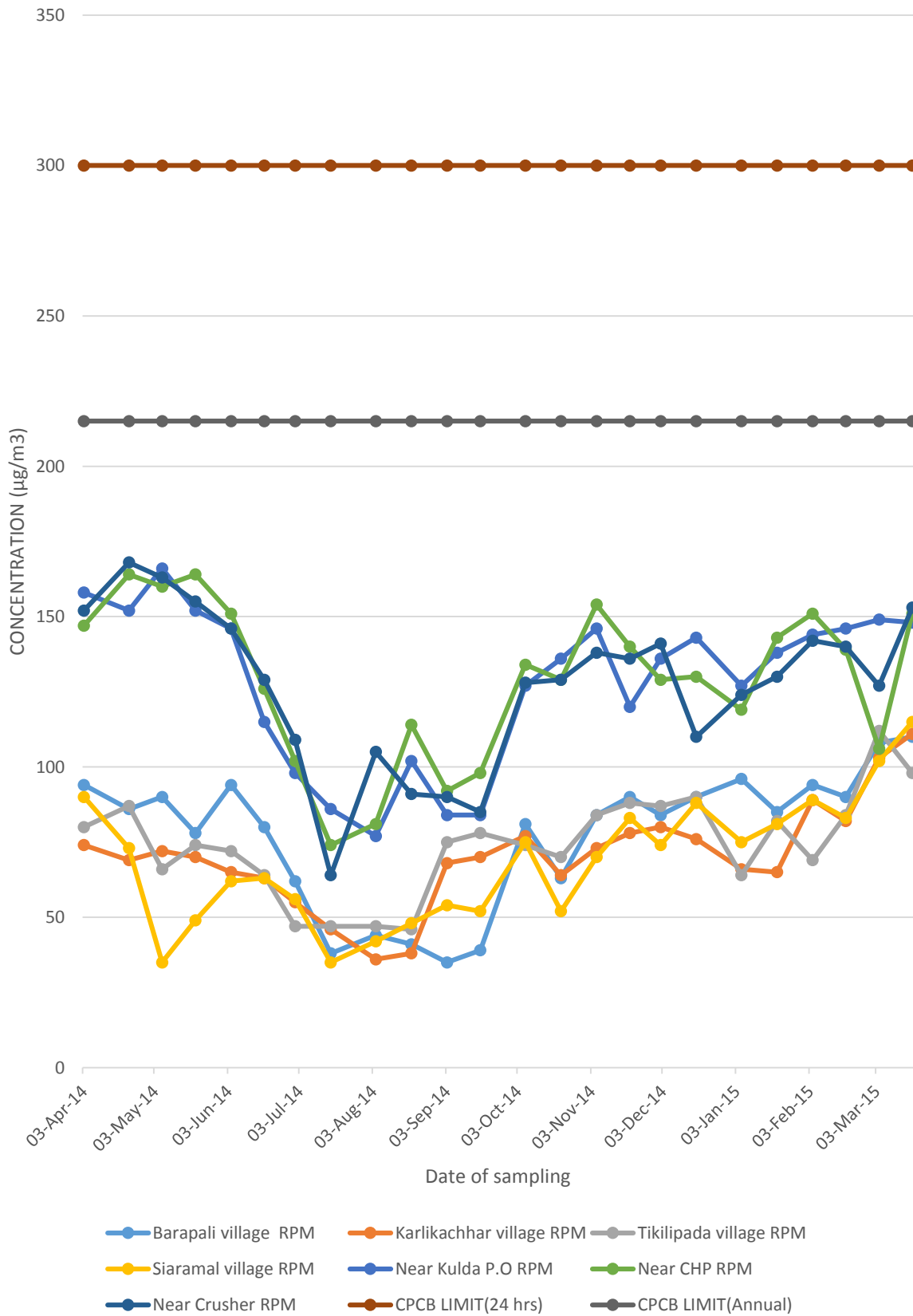
**Monitoring Station : Near a Crusher**

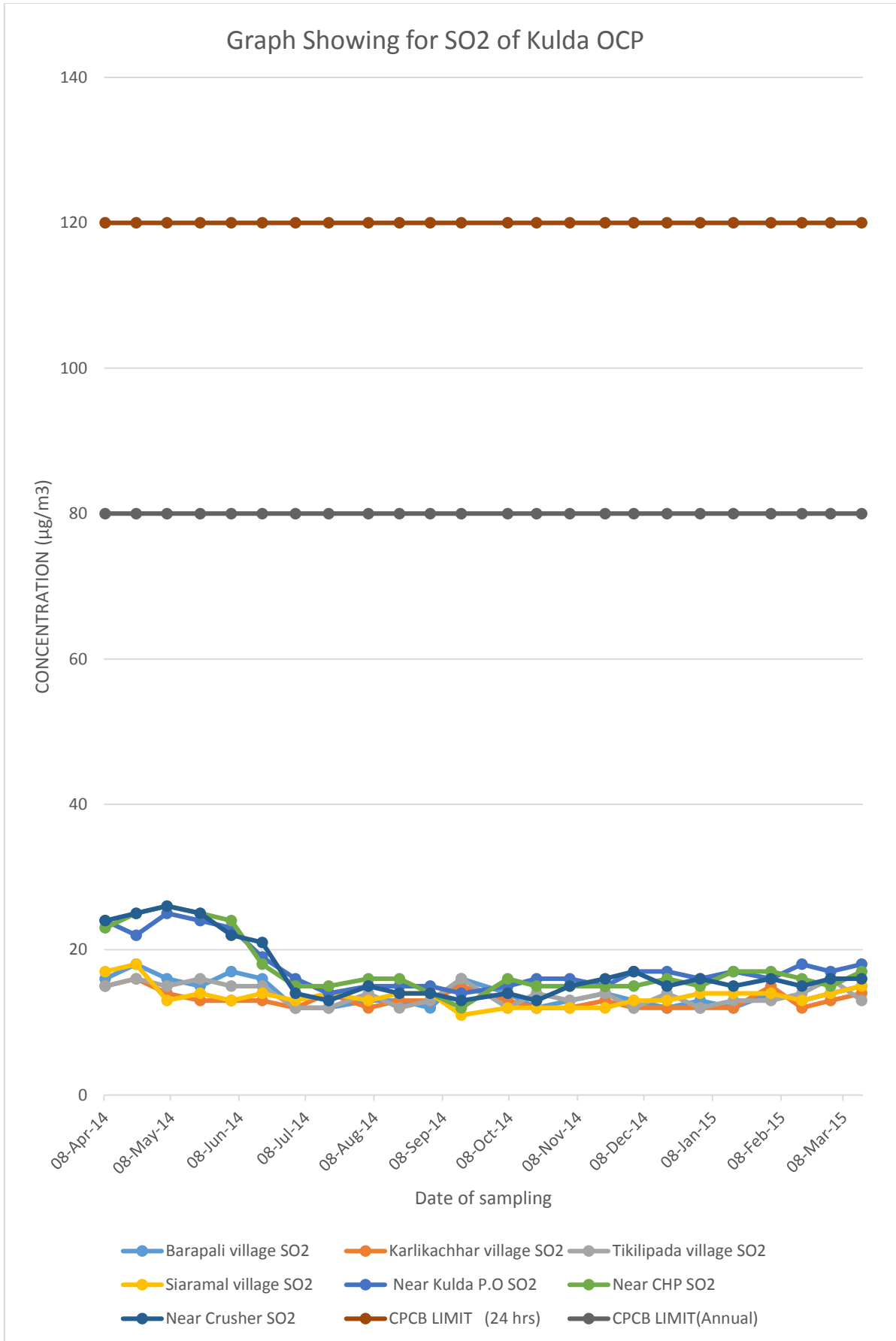
Date of Sampling	SPM	RPM	SO2	NOx	PM 2.5	Remarks
07-Apr-14	364	152	24	28	78	West to east hot & sunny
22-Apr-14	375	168	25	30	72	East to west hot & sunny
05-May-14	367	163	26	30	71	East to west hot & sunny
19-May-14	360	155	25	29	72	East to west hot & sunny
03-Jun-14	344	146	22	26	54	East to west hot & sunny
17-Jun-14	304	129	21	24	60	East to west sunny & cloudy
02-Jul-14	214	109	14	19	57	East to west cloudy & rain fall
17-Jul-14	170	64	13	17	35	East to west cloudy & heavy rain fall
04-Aug-14	208	105	15	19	65	East to west cloudy & heavy rain fall
18-Aug-14	189	91	14	17	51	East to west cloudy & rain fall
02-Sep-14	165	90	14	18	35	East to west cloudy & sunny evening rain fall
16-Sep-14	155	85	13	21	32	East to west cloudy & sunny evening rain fall
06-Oct-14	250	128	14	18	63	West to east sunny & cloudy
20-Oct-14	266	129	13	16	63	East to west sunny & cloudy
04-Nov-14	301	138	15	18	64	West to east sunny & cloudy
20-Nov-14	336	136	16	20	60	East to west & sunny
02-Dec-14	341	141	17	21	70	East to west & sunny
17-Dec-14	295	110	15	19	58	East to west sunny & cloudy
05-Jan-15	324	124	16	20	62	East to west & sunny
20-Jan-15	315	130	15	20	51	East to west sunny & cloudy
04-Feb-15	343	142	16	20	68	East to west & sunny
18-Feb-15	340	140	15	20	64	East to west & sunny
02-Mar-15	333	127	16	19	58	West to east sunny & cloudy
16-Mar-15	360	153	16	21	70	West to east & sunny
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM 2.5</b>	
<b>Maximum</b>	375	168	26	30	78	
<b>Minimum</b>	155	64	13	16	32	
<b>Average</b>	290	126	17	21.3	59.261	
<b>95 Percentile</b>	367	162	25	29.9	72	
<b>98 Percentile</b>	371	166	26	30	75.36	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

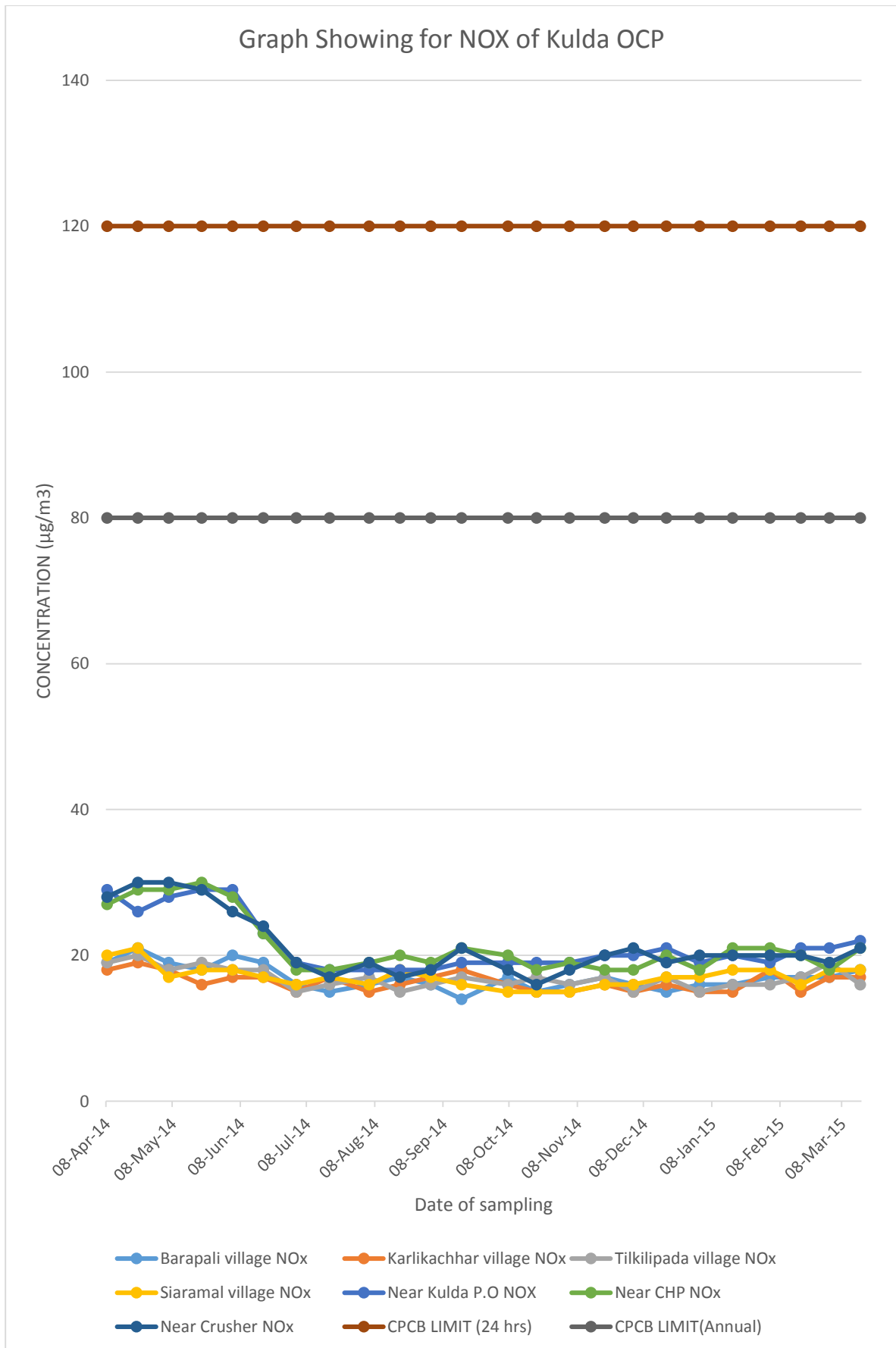
*All values are in  $\mu\text{g}/\text{m}^3$*



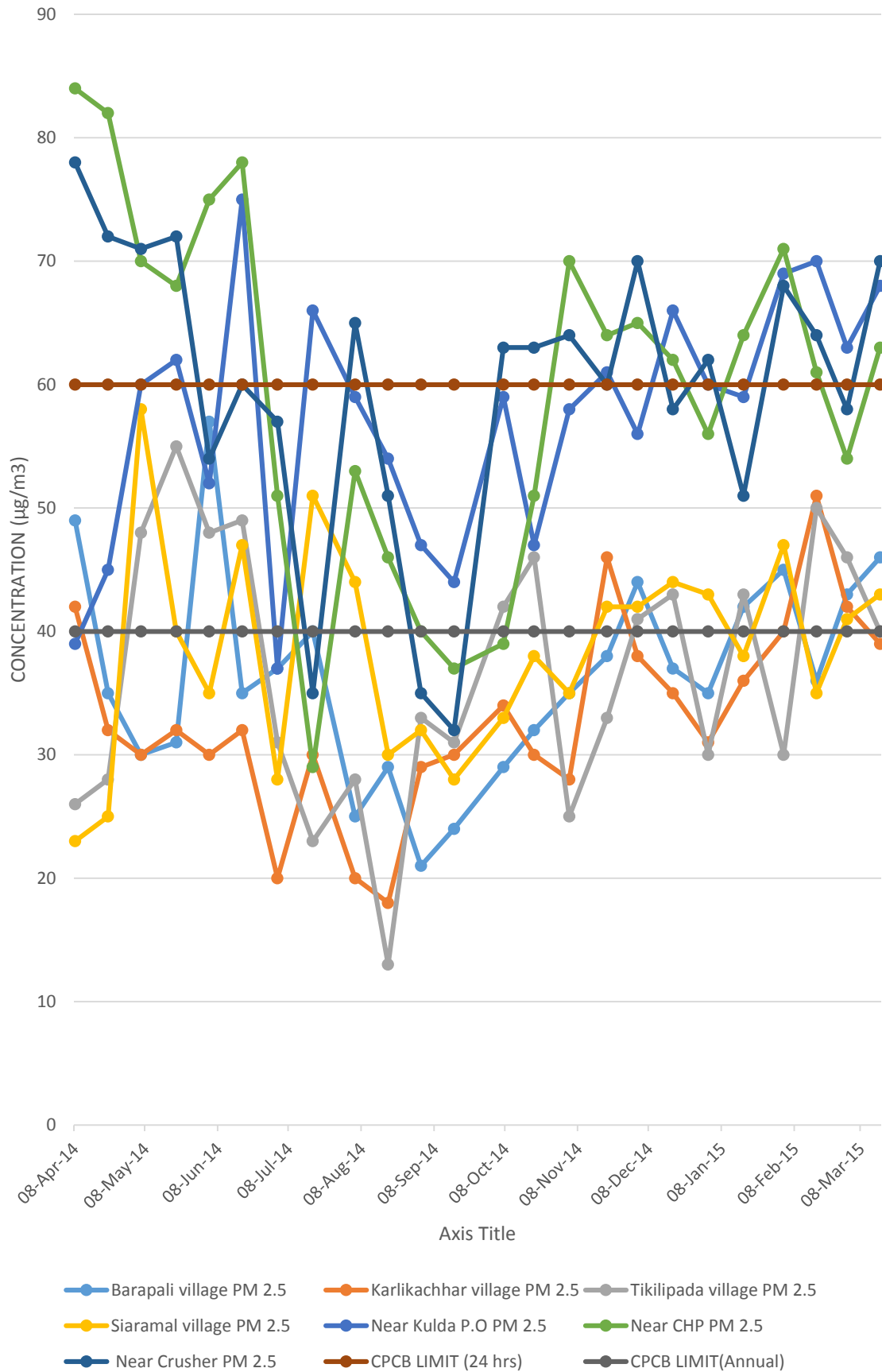
Graph Showing for RPM of Kulda OCP







Graph Showing for PM2.5 of Kulda OCP



**Table : 38 Air Quality Data**

**Project : Basundhara OCP**

**Monitoring Station : Sardega village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
01-Jul-14	163	72	14	18	50	East to west cloudy & rain fall
16-Jul-14	105	34	13	16	23	West to east cloudy & heavy rain fall
04-Aug-14	95	58	13	16	25	East to west cloudy & heavy rain fall
19-Aug-14	105	34	12	15	23	East to west cloudy & rain fall
03-Sep-14	82	39	13	16	37	East to west cloudy & heavy rain fall
17-Sep-14	73	31	11	14	31	East to west cloudy & heavy rain fall
06-Oct-14	164	86	13	17	44	West to east sunny & cloudy
21-Oct-14	179	82	13	16	39	West to east & sunny
05-Nov-14	188	91	13	17	42	East to west & sunny
19-Nov-14	192	78	13	16	38	West to east & sunny
02-Dec-14	179	92	12	16	29	East to west & sunny
17-Dec-14	191	90	13	16	39	East to west sunny & cloudy
05-Jan-15	180	82	13	16	37	East to west sunny
20-Jan-15	178	83	12	16	35	East to west sunny & cloudy
04-Feb-15	195	97	13	17	48	East to west & sunny
18-Feb-15	210	103	14	18	51	East to west & sunny
04-Mar-15	198	94	13	17	50	East to west sunny & cloudy
18-Mar-15	220	99	14	18	45	East to west & sunny
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	220	103	14	18	51	
<b>Minimum</b>	73	31	11	14	23	
<b>Average</b>	161	74.7	13	16.4	38.111	
<b>95 Percentile</b>	212	99.6	14	18	50.15	
<b>98 Percentile</b>	217	102	14	18	50.66	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table: 39 Annalysis of NAAQS Parameter**

<i>Name of Location</i>	<i>Units</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Sardega Village</i>	<i>Standard</i>
<i>Date of Sampling</i>		<b>02-12-2014</b>	<b>17-12-2014</b>	<b>05-01-2015</b>	<b>20-01-2015</b>	<b>04-02-2015</b>	<b>18-02-2015</b>	<b>04-03-2015</b>	<b>18-03-2015</b>	
<b>Ammonia(NH<sub>3</sub>)</b>	<b>(µg/m<sup>3</sup>)</b>	<i>BDL</i>	8.4	<6.0	<6.0	<6.0	<6.0	6.7	<6.0	<b>400</b>
<b>Ozone(O<sub>3</sub>)</b>	<b>(µg/m<sup>3</sup>)</b>	<i>BDL</i>	<i>BDL</i>	<3.0	<3.0	5.6	<3.0	4.5	3.4	<b>60</b>
<b>B(a)P</b>	<b>(ng/m<sup>3</sup>)</b>	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<b>1</b>
<b>Lead (Pb)</b>	<b>(µg/m<sup>3</sup>)</b>	<0.01	<0.01	<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	<b>1</b>
<b>Arsenic (As)</b>	<b>(ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>6</b>
<b>Nickle (Ni)</b>	<b>( ng/m<sup>3</sup>)</b>	<1	<1	<1.0	<1.0	<0.01	<0.01	<0.01	<0.01	<b>20</b>
<b>Benzene(C<sub>6</sub>H<sub>6</sub>)*</b>	<b>(µg/m<sup>3</sup>)</b>	<0.5	<0.5	<0.5	<0.5	<0.01	<0.01	<0.01	<0.01	<b>5</b>
<b>Carbon monoxide(CO)</b>	<b>(mg/m<sup>3</sup>)</b>	<i>BDL</i>	8.4	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<b>2</b>
<b>Mercury(Hg)</b>	<b>(ng/m<sup>3</sup>)</b>			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>Chromium(Cr)</b>	<b>(µg/m<sup>3</sup>)</b>			<0.01	<0.01	<1.0	<1.0	<1.0	<1.0	
<b>Cadmium(Cd)</b>	<b>(µg/m<sup>3</sup>)</b>			<0.01	<0.01	<0.5	<0.5	<0.5	<0.5	

**Table: 40 Heavy Metal Analysis**

**Project: Kulda OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
17.12.14	Near C.H.P.	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.5
17.12.14	Near Crusher	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.9
17.12.14	Tikilipara village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
17.12.14	Siarmal village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
18.12.14	Karlikachhar village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
18.12.14	Nr. Kulda PO	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.5
18.12.14	Barapali village	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0

**Table: 41 Heavy Metal Analysis**

**Project: Basundhara OCP**

DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
17.12.14	Excavation workshop	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.5

**Table : 42 Air Quality Data**
**Project : Basundhara OCP**
**Monitoring Station : Excavation Workshop**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM <sub>2.5</sub>	Remark
04-Apr-14	357	158	24	27	48	East to west hot & sunny
23-Apr-14	336	142	20	24	55	West to east hot & sunny
07-May-14	358	136	23	27	64	West to east hot & sunny
22-May-14	341	124	21	24	54	East to west hot & sunny
04-Jun-14	375	110	20	25	43	East to west hot & sunny
18-Jun-14	253	97	16	19	66	East to west sunny & cloudy rain fall
02-Jul-14	205	90	15	19	22	East to west cloudy & rain fall
17-Jul-14	189	79	14	18	29	West to east cloudy & heavy rain fall
04-Aug-14	213	110	16	20	34	East to west cloudy & heavy rain fall
18-Aug-14	189	38	14	17	20	East to west cloudy & rain fall
03-Sep-14	157	74	15	18	39	East to west cloudy & heavy rain fall
17-Sep-14	142	71	19	14	32	East to west cloudy & heavy rain fall
07-Oct-14	204	98	15	18	42	East to west sunny & cloudy
21-Oct-14	284	115	15	18	44	West to east & sunny
05-Nov-14	326	118	15	18	51	East to west & sunny
19-Nov-14	348	151	17	21	62	West to east & sunny
02-Dec-14	332	118	16	19	69	East to west & sunny
18-Dec-14	348	147	18	21	67	West to east cloudy & sunny.
05-Jan-15	345	137	17	20	63	East to west sunny
20-Jan-15	340	133	16	20	57	East to west sunny & cloudy
04-Feb-15	344	136	15	20	56	East to west & sunny
18-Feb-15	350	142	18	21	53	East to west & sunny
03-Mar-15	338	147	15	19	59	East to west sunny & cloudy
17-Mar-15	347	129	15	18	53	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
Maximum	375	158	24	27	69	
Minimum	142	38	14	14	20	
Average	292.54	116.67	17.04	20.21	49.25	
95 Percentile	357.85	150.4	22.7	26.7	66.85	
98 Percentile	367.18	154.78	23.54	27	68.08	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

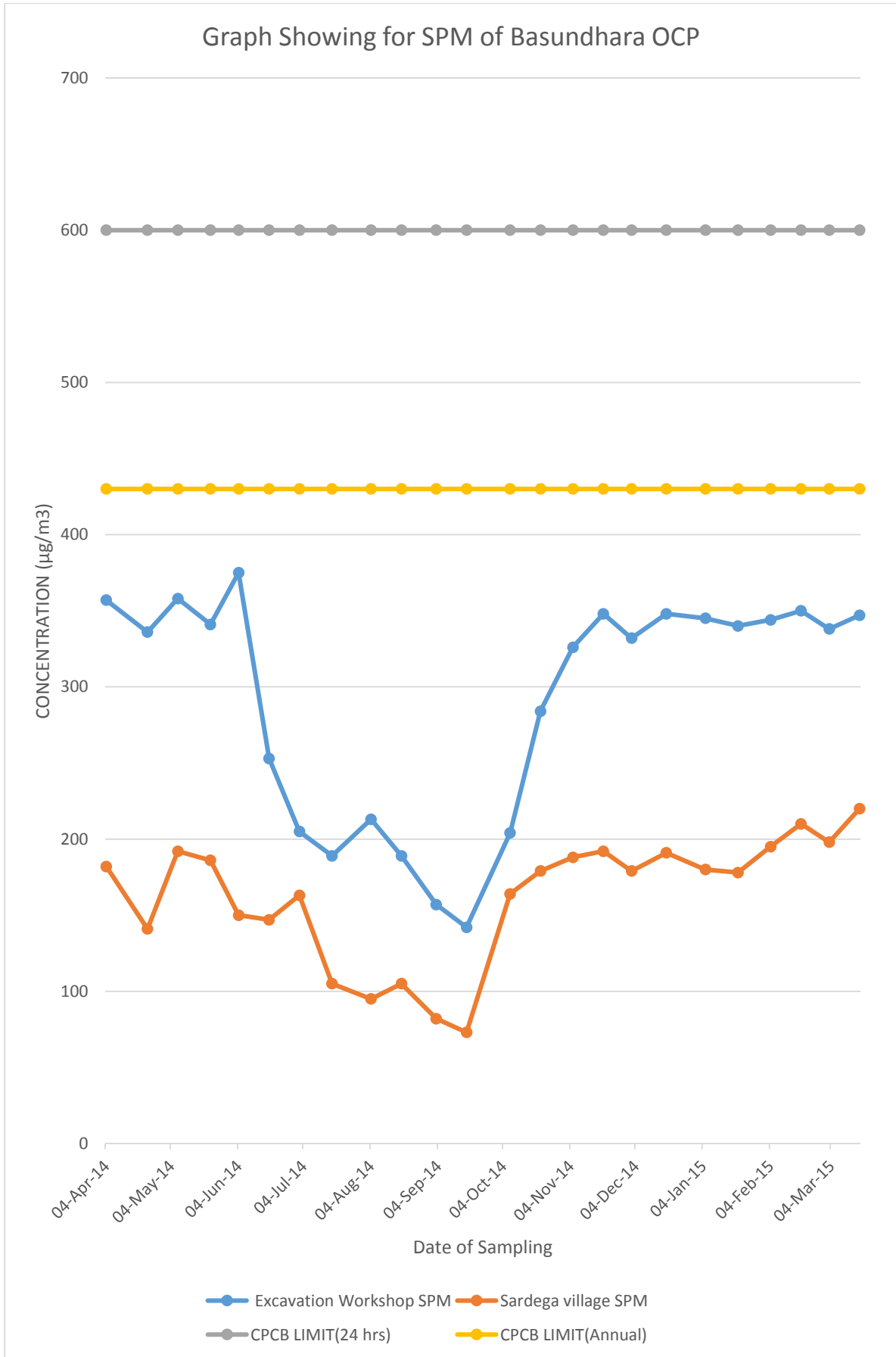
**Table : 43 Air Quality Data**

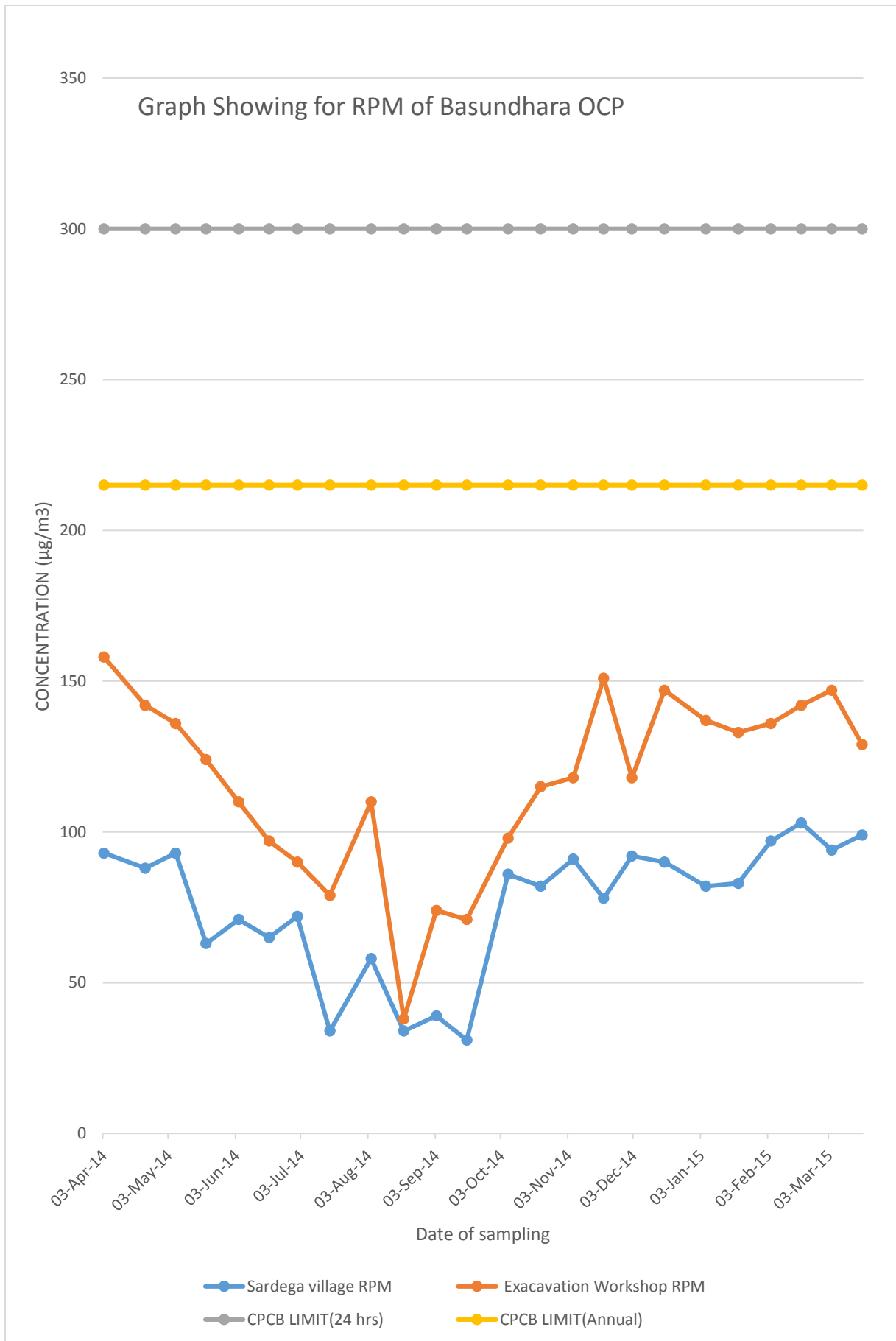
**Project : Basundhara OCP**

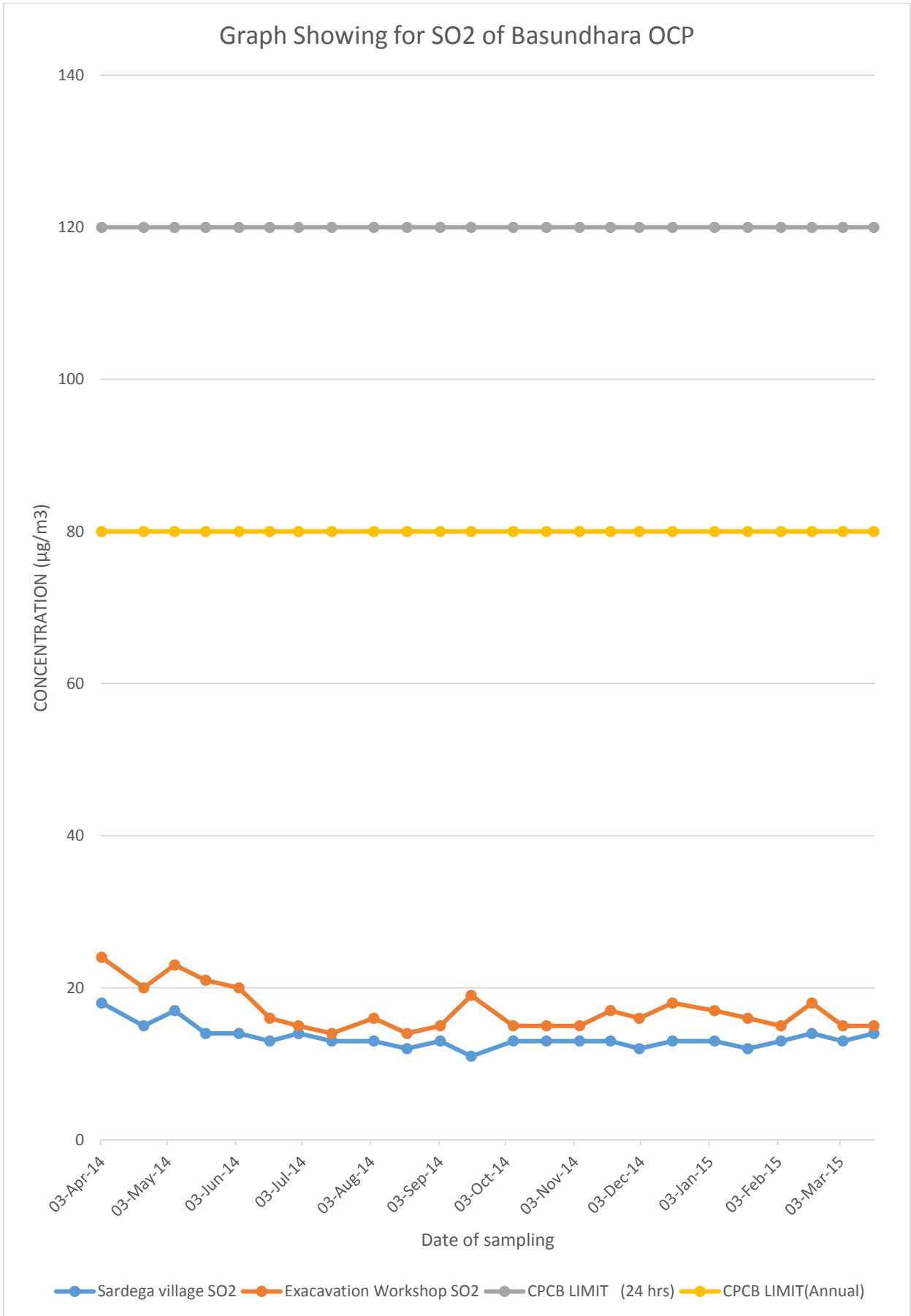
**Monitoring Station : Kulapara Hemlet of Gopalpur village**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
03-Apr-14	182	93	18	22	49	West to east hot & sunny
22-Apr-14	141	88	15	18	32	East to west hot & sunny
06-May-14	192	93	17	20	40	East to west hot & sunny
20-May-14	186	63	14	18	37	East to west hot & sunny
04-Jun-14	150	71	14	17	35	East to west hot & sunny
18-Jun-14	147	65	13	16	35	West to east cloudy & heavy rain fall
<b>Brief Statistic</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	192	93	18	22	49	
<b>Minimum</b>	141	63	13	16	32	
<b>Average</b>	166	78.8	15	18.5	38	
<b>95 Percentile</b>	191	93	18	21.5	46.75	
<b>98 Percentile</b>	191	93	18	21.8	48.1	
<b>Standard (24 hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard( Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

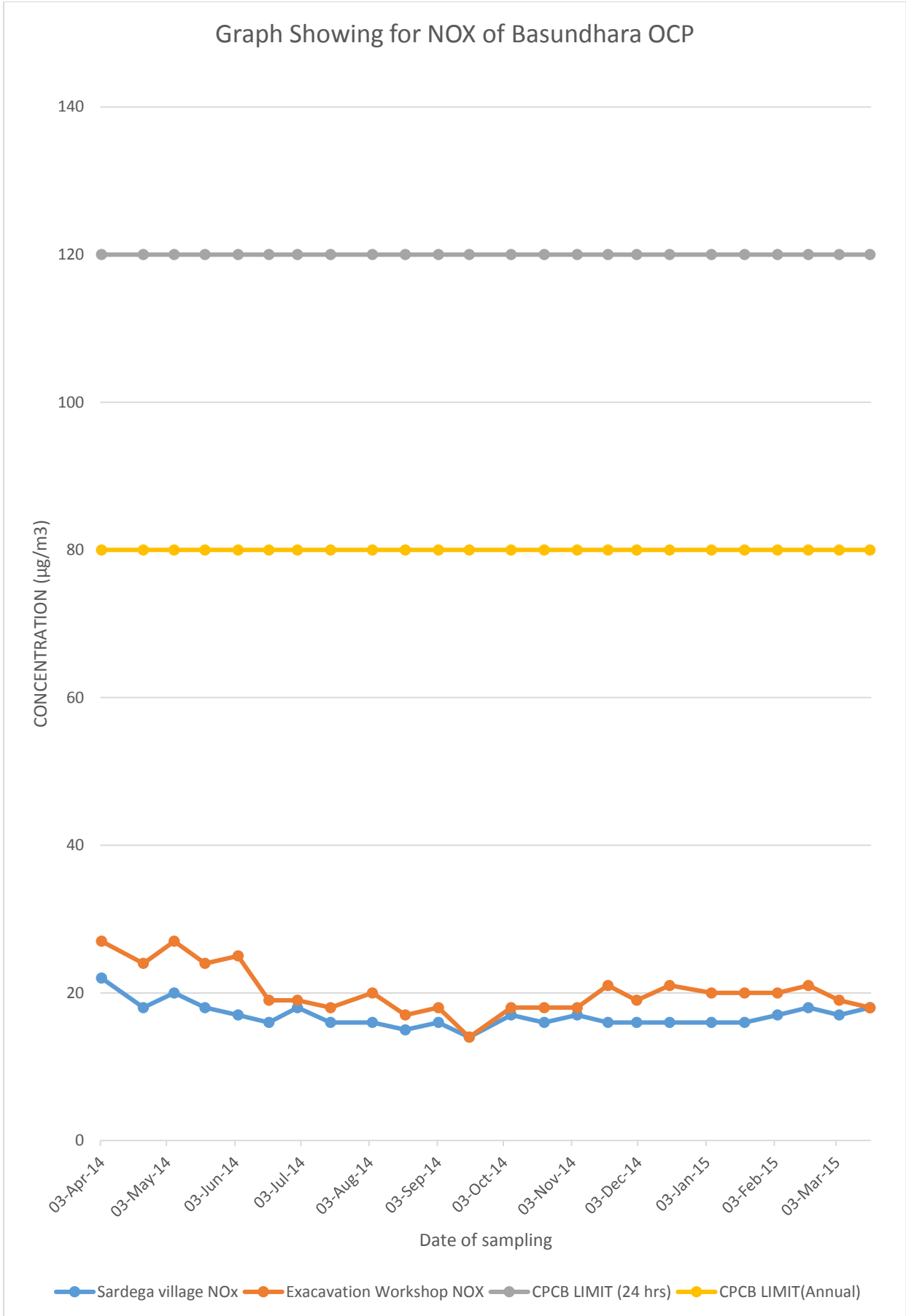
*All values are in  $\mu\text{g}/\text{m}^3$*



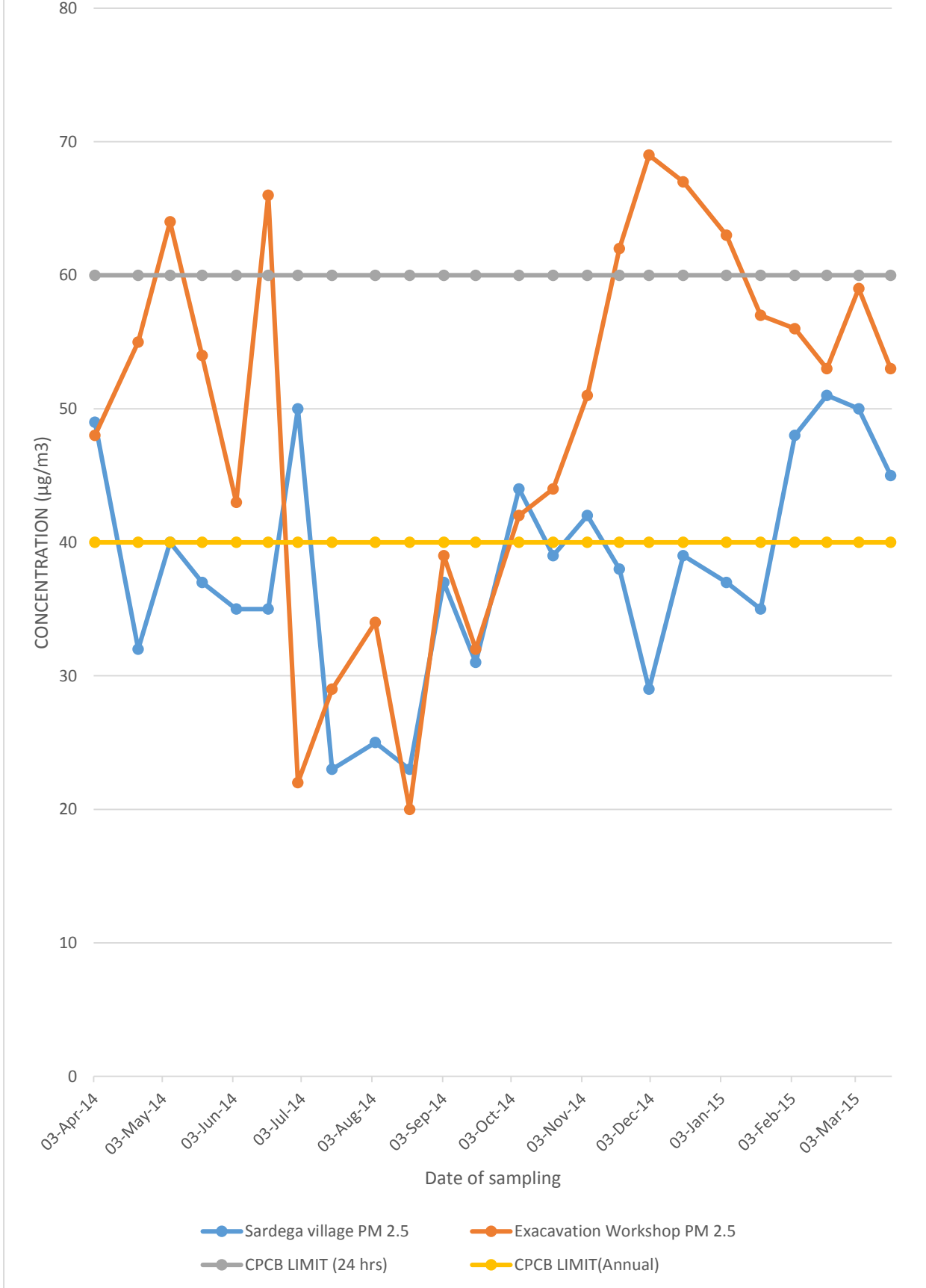




Graph Showing for NO<sub>x</sub> of Basundhara OCP



Graph Showing for PM2.5 of Basundhara OCP



**Table : 44 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : Orient Mine No-2**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
07-Apr-14	348	151	24	28	75	West to east hot & sunny
17-Apr-14	330	135	23	26	69	East to west hot & sunny
08-May-14	266	120	20	23	42	East to west hot & sunny
22-May-14	252	104	17	21	37	West to east hot & sunny
06-Jun-14	258	107	16	20	59	West to east hot & sunny
20-Jun-14	220	92	15	19	44	West to east cloudy & rain fall
04-Jul-14	197	86	16	19	48	East to west cloudy & evening rain fall
19-Jul-14	154	66	14	17	47	East to west cloudy & evening rain fall
06-Aug-14	175	93	13	17	37	East to west cloudy & heavy rain fall
20-Aug-14	172	87	14	18	35	East to west cloudy & evening rain fall
04-Sep-14	144	62	13	16	36	West to east cloudy & sunny evening rain fall
18-Sep-14	125	58	11	13	27	West to east cloudy & sunny evening rain fall
11-Oct-14	278	123	16	19	39	East to west sunny & cloudy
25-Oct-14	226	125	15	19	55	West to east & sunny
03-Nov-14	274	130	16	19	37	East to west & sunny
03-Nov-14	274	130	16	19	37	East to west & sunny
17-Nov-14	310	128	17	20	47	East to west & sunny
04-Dec-14	318	117	16	20	55	East to west & sunny
19-Dec-14	300	116	15	21	53	East to west sunny & cloudy
06-Jan-15						Coal India strike
21-Jan-15	270	115	12	15	42	West to east & sunny
05-Feb-15	286	119	14	17	53	West to east & sunny
19-Feb-15	259	85	13	17	45	East to west & sunny
09-Mar-15	291	118	14	18	42	East to west & sunny
23-Mar-15	286	110	14	18	50	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	348	151	24	28	75	
<b>Minimum</b>	125	58	11	13	27	
<b>Average</b>	250.54	107.38	15.58	19.13	46.29	
<b>95 Percentile</b>	328.2	134.25	22.55	25.55	67.5	
<b>98 Percentile</b>	339.72	143.64	23.54	27.08	72.24	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 45 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : Orient Mine No-3**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
07-Apr-14	340	144	21	25	49	West to east hot & sunny
17-Apr-14	326	140	22	27	43	East to west hot & sunny
08-May-14	244	86	19	22	32	East to west hot & sunny
23-May-14	271	98	21	25	68	East to west hot & sunny
05-Jun-14	280	92	19	22	51	East to west hot & sunny
19-Jun-14	231	90	16	20	39	East to west cloudy & rain fall
04-Jul-14	201	85	15	18	34	East to west cloudy & evening rain fall
19-Jul-14	163	56	13	16	24	West to east cloudy & heavy rain fall
06-Aug-14	140	53	12	15	29	East to west cloudy & heavy rain fall
20-Aug-14	92	53	12	15	35	East to west cloudy & evening rain fall
04-Sep-14	88	40	12	15	24	West to east cloudy & sunny evening rain fall
18-Sep-14	101	46	11	18	26	West to east cloudy & sunny evening rain fall
11-Oct-14	215	104	14	18	47	East to west sunny & cloudy
25-Oct-14	220	107	13	17	41	East to west & sunny
03-Nov-14	295	135	15	18	47	East to west & sunny
03-Nov-14	295	135	15	18	47	East to west & sunny
17-Nov-14	275	126	16	20	36	East to west & sunny
04-Dec-14	291	124	14	19	53	East to west & sunny
19-Dec-14	300	124	16	20	57	East to west sunny & cloudy
06-Jan-15	Coal India strike					
21-Jan-15	240	85	13	16	44	West to east & sunny
05-Feb-15	274	108	15	18	48	West to east & sunny
19-Feb-15	263	115	16	19	51	East to west & sunny
09-Mar-15	288	103	15	18	62	East to west & sunny
23-Mar-15	273	116	15	19	63	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	340	144	22	27	68	
<b>Minimum</b>	88	40	11	15	24	
<b>Average</b>	237.75	98.54	15.42	19.08	43.75	
<b>95 Percentile</b>	322.1	139.25	21	25	62.85	
<b>98 Percentile</b>	333.56	142.16	21.54	26.08	65.7	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 46 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : Orient Mine No-4**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
08-Apr-14	336	141	20	24	67	East to west hot & sunny
19-Apr-14	285	158	20	24	65	East to west hot & sunny
07-May-14	276	108	21	24	44	West to east hot & sunny
21-May-14	288	117	22	26	58	East to west hot & sunny
05-Jun-14	276	112	20	24	68	East to west hot & sunny
19-Jun-14	215	86	15	18	28	East to west cloudy & rain fall
04-Jul-14	190	77	13	16	26	East to west cloudy & evening rain fall
19-Jul-14	182	85	12	15	28	West to east cloudy & heavy rain fall
06-Aug-14	155	70	15	18	27	East to west cloudy & heavy rain fall
20-Aug-14	161	74	13	17	40	East to west cloudy & evening rain fall
04-Sep-14	115	70	13	17	22	West to east cloudy & sunny evening rain fall
18-Sep-14	121	73	18	19	27	West to east cloudy & sunny evening rain fall
11-Oct-14	256	117	15	18	30	East to west sunny & cloudy
25-Oct-14	206	92	14	17	31	East to west & sunny
03-Nov-14	251	127	14	17	48	East to west & sunny
03-Nov-14	251	127	14	17	48	East to west & sunny
17-Nov-14	331	130	16	20	52	East to west & sunny
05-Dec-14	325	126	16	19	64	West to east & sunny
19-Dec-14	286	107	14	18	51	East to west sunny & cloudy
06-Jan-15	Coal India strike					
21-Jan-15	320	127	14	19	45	West to east & sunny
05-Feb-15	324	135	16	19	64	West to east & sunny
19-Feb-15	301	124	17	20	54	East to west & sunny
09-Mar-15	310	129	16	19	50	East to west & sunny
23-Mar-15	320	125	17	20	58	East to west & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM 2.5</b>	
<b>Maximum</b>	336	158	22	26	68	
<b>Minimum</b>	115	70	12	15	22	
<b>Average</b>	253.38	109.88	16.04	19.38	45.63	
<b>95 Percentile</b>	330.1	140.1	20.85	24	66.7	
<b>98 Percentile</b>	333.7	150.18	21.54	25.08	67.54	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 47 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : HBI Mine**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
15-Apr-14	325	136	22	25	42	East to west hot & sunny
29-Apr-14	319	124	21	24	48	East to west hot & sunny
13-May-14	310	119	22	25	62	West to east hot & sunny
28-May-14	254	95	20	23	51	East to west & cloudy heavy rain fall
09-Jun-14	284	104	21	25	68	East to west hot & sunny
23-Jun-14	263	99	18	22	60	West to east cloudy & rain fall
04-Jul-14	210	90	15	19	37	East to west cloudy & evening rain fall
19-Jul-14	170	74	14	18	58	West to east cloudy & evening rain fall
09-Aug-14	182	80	14	19	51	West to east cloudy & heavy rain fall
22-Aug-14	172	68	14	17	38	East to west cloudy & evening rain fall
10-Sep-14	135	59	14	17	28	West to east cloudy & sunny evening rain fall
24-Sep-14	141	63	17	19	29	West to east cloudy & sunny evening rain fall
10-Oct-14	197	90	14	17	22	West to east sunny & cloudy
24-Oct-14	245	106	13	16	26	East to west sunny & cloudy
10-Nov-14	254	121	12	15	39	West to east sunny & cloudy
25-Nov-14	301	120	15	19	38	West to east & sunny
09-Dec-14	315	124	15	20	68	West to east & sunny
24-Dec-14	316	110	15	18	61	West to east & sunny
14-Jan-15	307	108	14	18	55	West to east & sunny
30-Jan-15	263	110	15	18	48	West to east & sunny
13-Feb-15	294	129	15	19	53	West to east sunny & Cloudy
27-Feb-15	312	134	16	19	56	West to east & sunny
11-Mar-15	320	131	14	17	61	West to east & sunny
25-Mar-15	343	136	18	21	63	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	343	136	22	25	68	
<b>Minimum</b>	135	59	12	15	22	
<b>Average</b>	259.67	105.42	16.17	19.58	48.42	
<b>95 Percentile</b>	324.25	135.7	21.85	25	67.25	
<b>98 Percentile</b>	334.72	136	22	25	68	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 48 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : HRC Mine**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
09-Apr-14	260	96	18	21	39	West to east hot & sunny
29-Apr-14	294	110	20	25	61	East to west hot & sunny
12-May-14	272	98	18	22	28	East to west hot & sunny
27-May-14	306	104	22	25	45	East to west hot & sunny
09-Jun-14	241	98	19	23	34	East to west hot & sunny
23-Jun-14	247	108	19	22	76	East to west hot & sunny
08-Jul-14	189	75	13	17	52	East to west cloudy & rain fall
23-Jul-14	159	64	12	17	64	West to east cloudy & evening rain fall
07-Aug-14	137	66	12	15	55	West to east cloudy & heavy rain fall
21-Aug-14	140	69	12	16	32	West to east sunny & evening rain fall
05-Sep-14	127	74	13	16	31	East to west cloudy & sunny evening rain fall
19-Sep-14	112	81	16	15	35	East to west cloudy & sunny evening rain fall
08-Oct-14	248	117	15	19	37	West to east sunny & cloudy
24-Oct-14	201	98	13	17	51	East to west sunny & cloudy
06-Nov-14	245	109	13	16	51	West to east sunny & cloudy
21-Nov-14	285	124	16	19	50	West to east & sunny
08-Dec-14	289	131	15	18	67	East to west & sunny
22-Dec-14	297	130	16	20	49	West to east & sunny
14-Jan-15	290	105	13	17	51	West to east & sunny
30-Jan-15	246	135	14	19	50	West to east & sunny
13-Feb-15	273	137	16	20	61	West to east sunny & Cloudy
27-Feb-15	270	109	14	18	48	West to east & sunny
11-Mar-15	301	117	15	18	53	West to east & sunny
25-Mar-15	287	116	14	18	47	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	306	137	22	25	76	
<b>Minimum</b>	112	64	12	15	28	
<b>Average</b>	238.17	102.96	15.33	18.88	48.63	
<b>95 Percentile</b>	300.4	134.4	19.85	24.7	66.55	
<b>98 Percentile</b>	303.7	136.08	21.08	25	71.86	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 49 Air Quality Data**
**Project : Orient U/G**
**Monitoring Station : Rampur Colony**

Date of Sampling	SPM	RPM	SO <sub>2</sub>	NO <sub>x</sub>	PM 2.5	Remarks
09-Apr-14	173	84	17	20	35	West to east hot & sunny
24-Apr-14	178	86	19	22	30	West to east hot & sunny
12-May-14	173	90	18	21	50	East to west hot & sunny
26-May-14	160	69	14	18	38	East to west hot & sunny rain fall
09-Jun-14	171	74	15	19	41	East to west hot & sunny
23-Jun-14	150	62	14	17	35	West to east cloudy & rain fall
08-Jul-14	115	46	12	15	37	East to west cloudy & rain fall
23-Jul-14	119	48	12	15	35	West to east cloudy & evening rain fall
07-Aug-14	104	52	12	16	41	West to east cloudy & rain fall
21-Aug-14	102	66	12	15	32	East to west cloudy & evening rain fall
05-Sep-14	105	48	12	15	22	East to west cloudy & sunny evening rain fall
19-Sep-14	97	52	19	14	26	East to west cloudy & sunny evening rain fall
09-Oct-14	177	84	13	16	23	East to west & sunny
24-Oct-14	102	77	12	15	28	East to west sunny & cloudy
06-Nov-14	145	75	12	16	34	West to east sunny & cloudy
21-Nov-14	189	90	14	17	36	East to west & sunny
08-Dec-14	174	87	11	14	37	East to west & sunny
23-Dec-14	198	94	13	16	34	East to west & sunny
14-Jan-15	179	81	12	16	32	West to east & sunny
30-Jan-15	180	91	13	16	38	West to east & sunny
13-Feb-15	196	95	14	17	43	West to east sunny & Cloudy
27-Feb-15	205	98	13	17	45	West to east & sunny
14-Mar-15	255	110	14	17	49	East to west & Sunny
25-Mar-15	220	95	13	17	43	West to east & sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>	
<b>Maximum</b>	255	110	19	22	50	
<b>Minimum</b>	97	46	11	14	22	
<b>Average</b>	161.13	77.25	13.75	16.71	36	
<b>95 Percentile</b>	217.75	97.55	18.85	20.85	48.4	
<b>98 Percentile</b>	238.9	104.48	19	21.54	49.54	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

**Table : 50 Noise Level Data**
**Project : Orient U/G**
**Monitoring Station : Near Adarsh Nagar Colony**

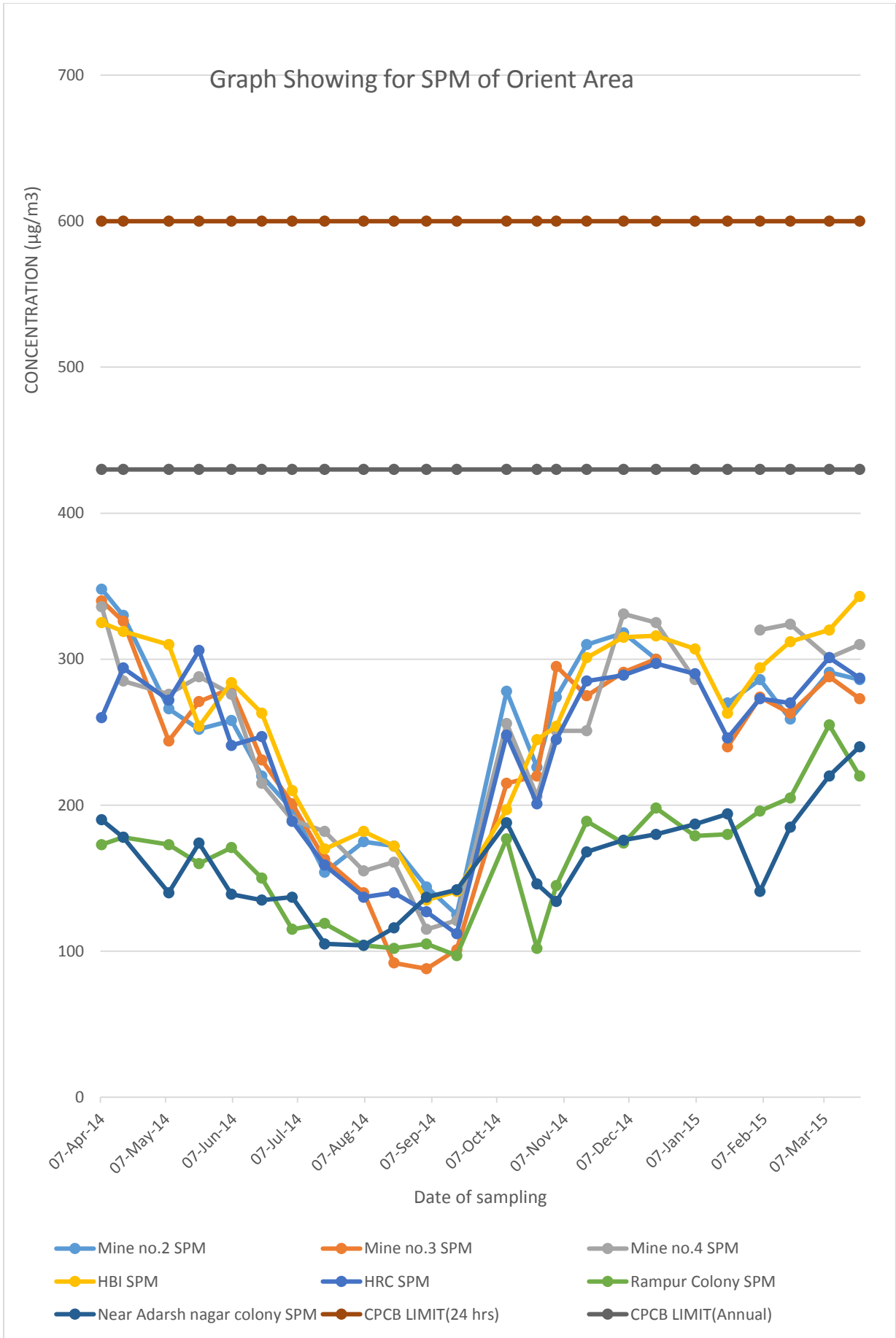
Date of Sampling	SPM	RPM	SO2	NOx	PM 2.5	Remarks
10-Apr-14	190	93	18	21	35	East to west hot & sunny
26-Apr-14	178	81	17	21	32	West to east hot & sunny
08-May-14	140	61	14	17	34	East to west hot & sunny
22-May-14	174	79	16	19	47	West to east hot & sunny
06-Jun-14	139	73	14	18	38	West to east hot & sunny
20-Jun-14	135	61	13	18	30	East to west cloudy & rain fall
04-Jul-14	137	64	14	17	29	East to west cloudy & evening rain fall
19-Jul-14	105	41	12	16	29	West to east cloudy & evening rain fall
06-Aug-14	104	61	12	16	28	East to west cloudy & evening rain fall
20-Aug-14	116	84	13	16	25	East to west cloudy & evening rain fall
04-Sep-14	137	59	12	15	41	West to east cloudy & sunny evening rain fall
18-Sep-14	142	55	13	14	37	West to east cloudy & sunny evening rain fall
08-Oct-14	188	91	14	17	45	West to east sunny & cloudy
22-Oct-14	146	89	12	16	34	West to east sunny & cloudy
03-Nov-14	134	74	13	16	41	East to west & sunny
03-Nov-14	134	74	13	16	41	East to west & sunny
17-Nov-14	168	84	14	18	39	East to west & sunny
04-Dec-14	176	85	14	17	36	East to west & sunny
19-Dec-14	180	78	15	18	38	West to east & sunny
13-Jan-15	187	84	13	16	40	East to west sunny & cloudy
29-Jan-15	194	90	14	17	41	East to west & sunny
12-Feb-15	141	70	13	16	40	East to west Cloudy & Rainfall
26-Feb-15	185	91	14	17	40	East to west & Sunny
14-Mar-15	220	108	15	18	53	East to west & Sunny
30-Mar-15	240	105	15	18	47	East to west & Sunny
<b>Brief Statistics</b>	<b>SPM</b>	<b>RPM</b>	<b>SO2</b>	<b>NOx</b>	<b>PM 2.5</b>	
<b>Maximum</b>	240	108	18	21	53	
<b>Minimum</b>	104	41	12	14	25	
<b>Average</b>	159.6	77.4	13.88	17.12	37.6	
<b>95 Percentile</b>	214.8	102.6	16.8	20.6	47	
<b>98 Percentile</b>	230.4	106.56	17.52	21	50.12	
<b>Standard (24 Hrs)</b>	<b>600</b>	<b>300</b>	<b>120</b>	<b>120</b>	<b>60</b>	
<b>Standard (Annual)</b>	<b>430</b>	<b>215</b>	<b>80</b>	<b>80</b>	<b>40</b>	

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

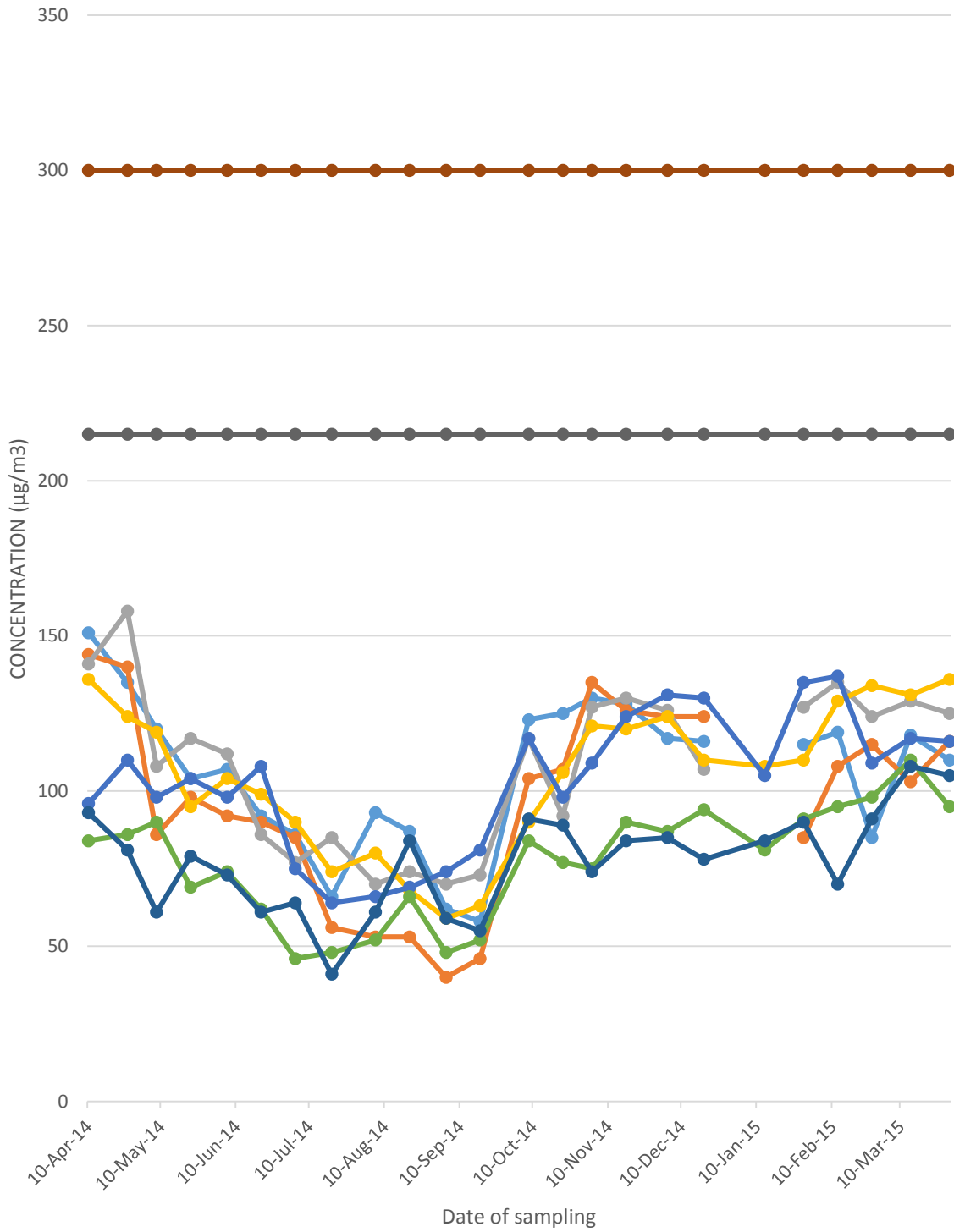
**Table: 51 Heavy Metal Analysis**

**Project: Orient U/G**

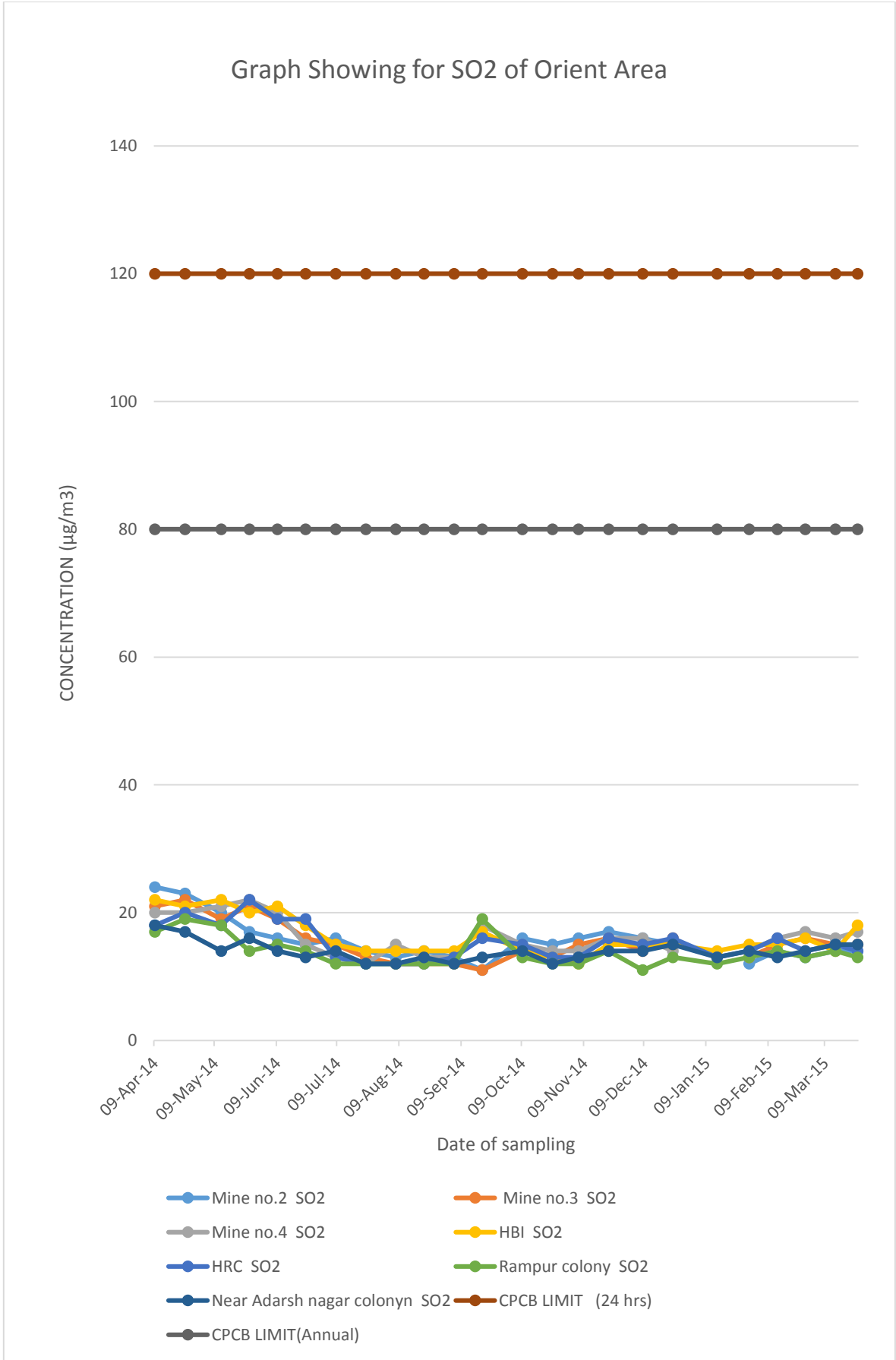
DOM	Name of Location	Pb (ug/m3)	As (ng/m3)	Ni (ng/m3)	Hg (ng/m3)	Cr (ug/m3)	Cd (ug/m3)	BaP (ng/m3)	Benzene (ug/m3)	CO (mg/m3)	Ammonia (ug/m3)
18.12.14	Orient mine No. 2	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.3
18.12.14	Orient mine No. 3	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	6.9
19.12.14	Orient mine No. 4	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.6
22.12.14	H.R.C. Mine	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
23.12.14	Rampur Colony	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0
24.12.14	H.B.I.Mine	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	7.2
22.12.14	Near Adarhnagar colony(orient area	<0.01	<1.0	<1.0	<1.0	<0.01	<0.01	<0.5	<0.01	<0.1	<6.0



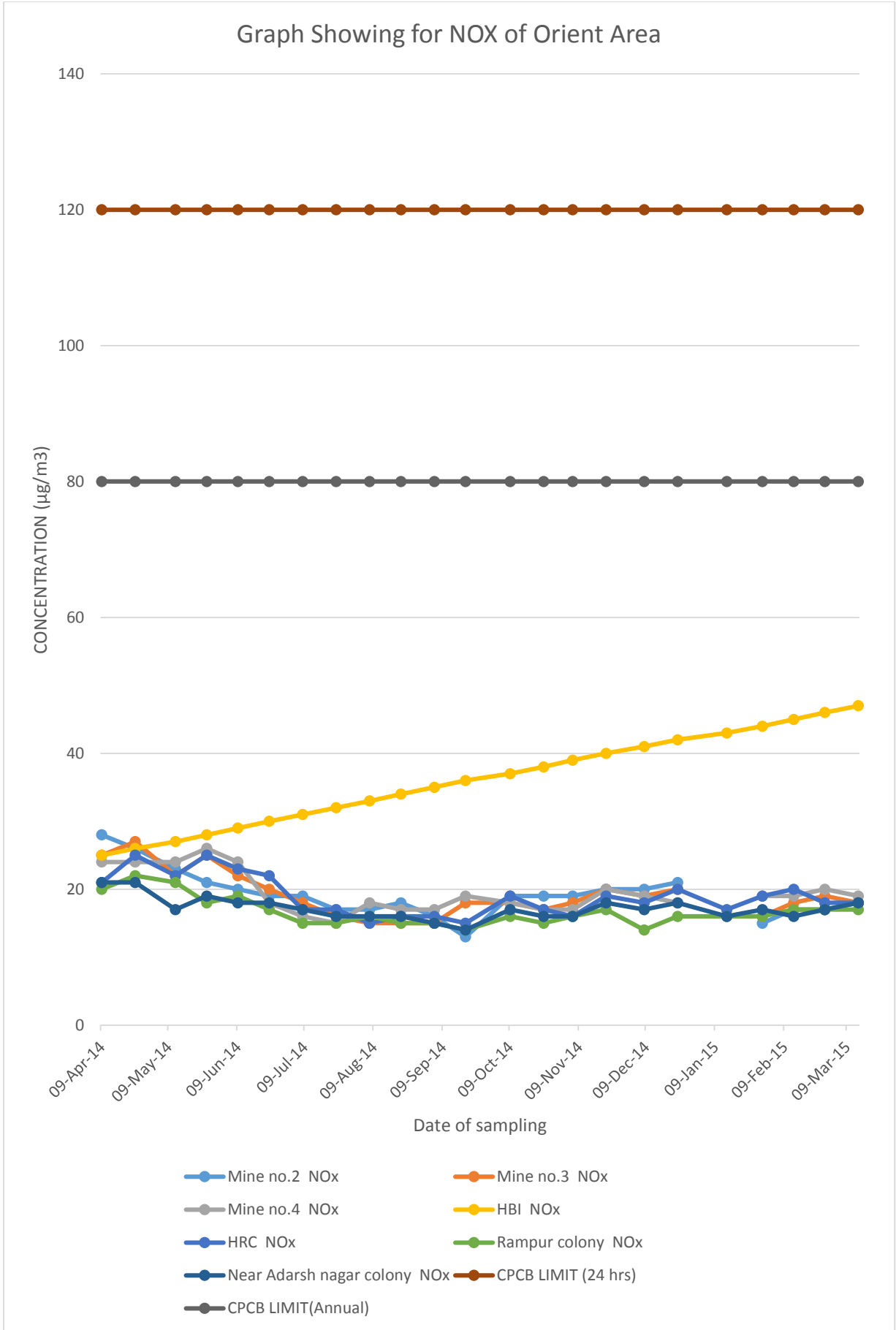
Graph Showing for RPM of Orient Area



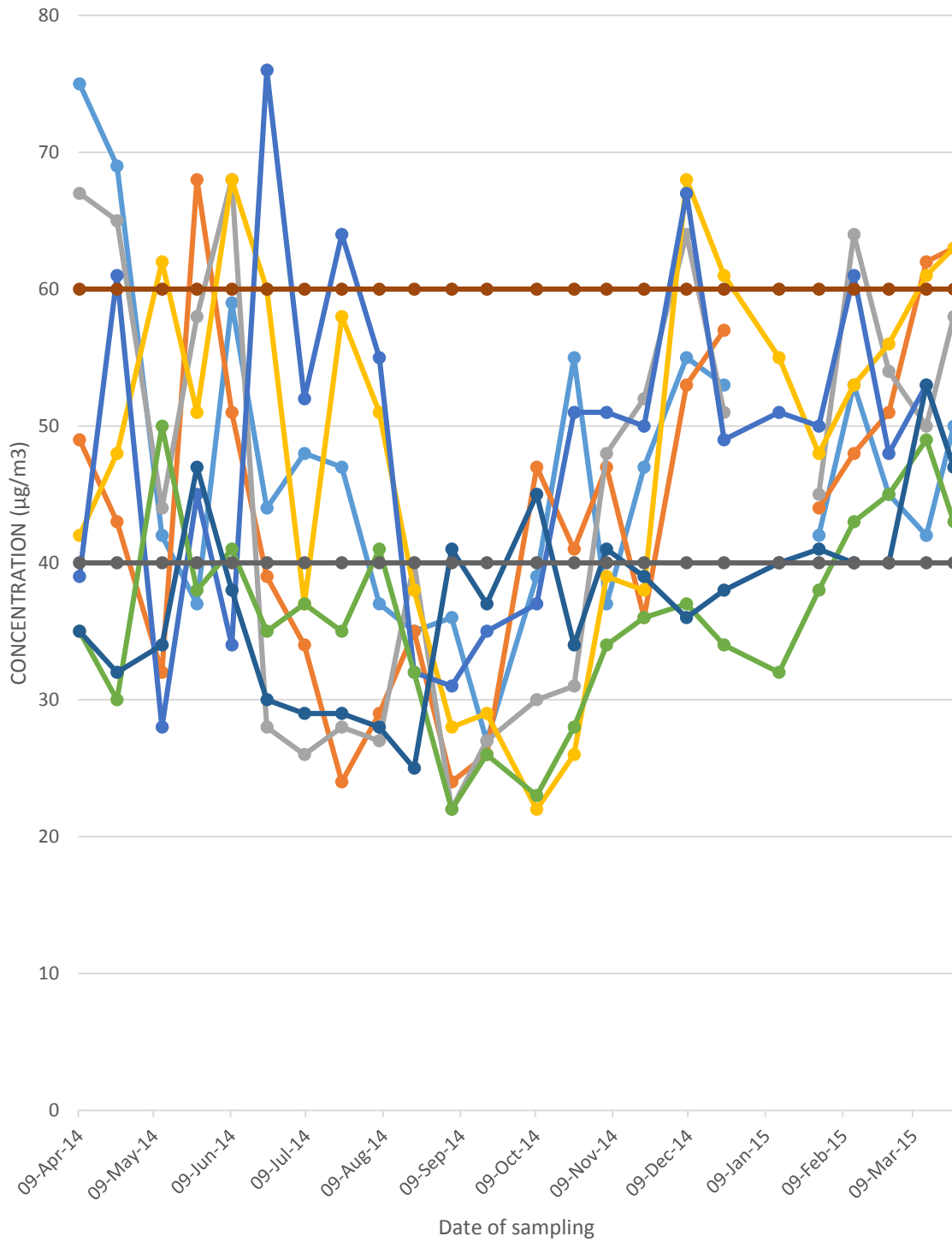
Graph Showing for SO2 of Orient Area



Graph Showing for NOX of Orient Area



Graph Showing for PM2.5 of Orient Area



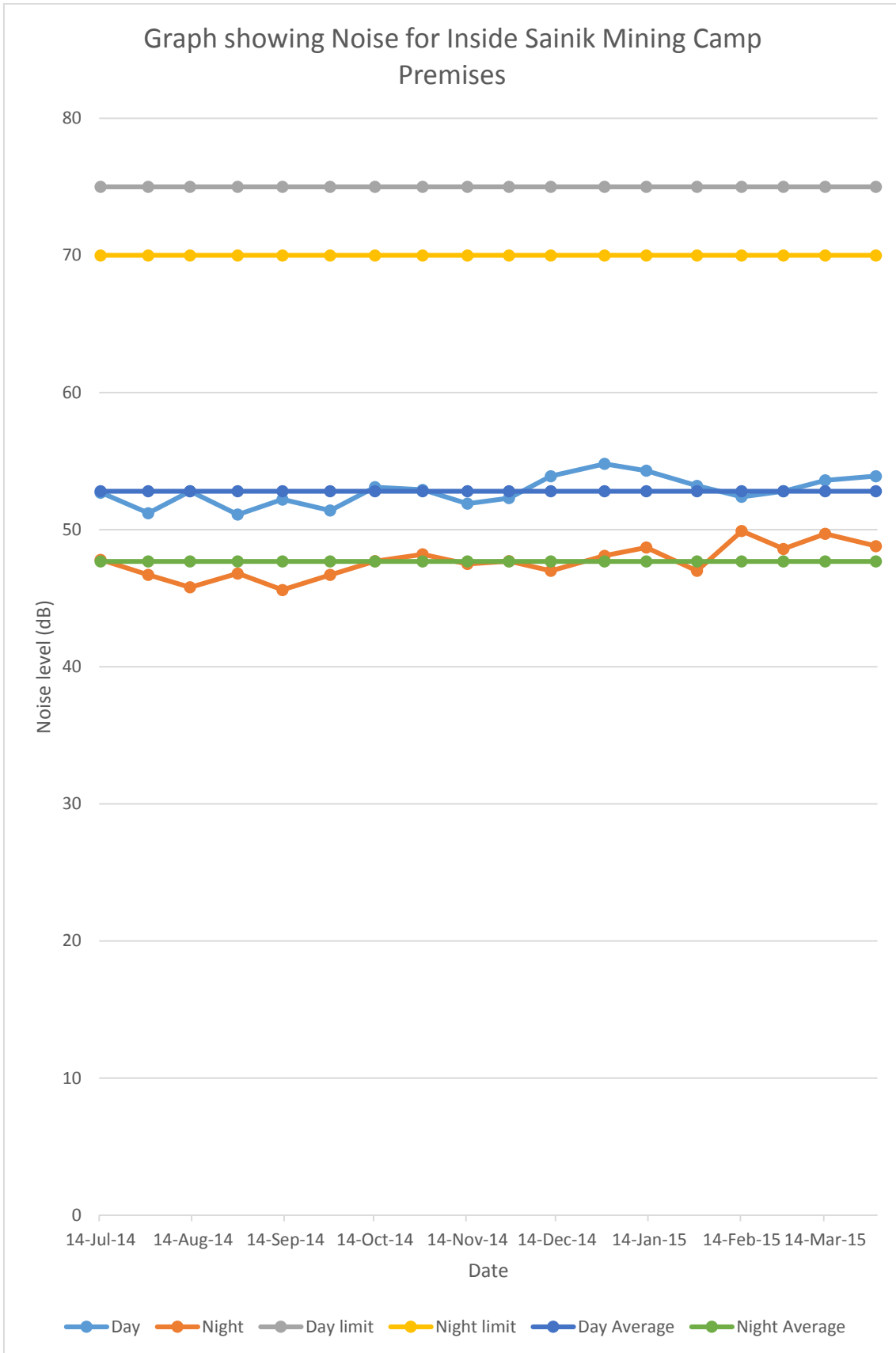
### Table : 52 Noise Level Data

#### Project :Samleswari OCP

#### Monitoring Station : Inside Sainik Mining Camp Premises

Date of sampling	Day	Night
14-Jul-14	52.7	47.8
30-Jul-14	51.2	46.7
13-Aug-14	52.8	45.8
29-Aug-14	51.1	46.8
13-Sep-14	52.2	45.6
29-Sep-14	51.4	46.7
14-Oct-14	53.1	47.7
30-Oct-14	52.9	48.2
14-Nov-14	51.9	47.5
28-Nov-14	52.3	47.7
12-Dec-14	53.9	47
30-Dec-14	54.8	48.1
13-Jan-15	54.3	48.7
30-Jan-15	53.2	47
14-Feb-15	52.4	49.9
28-Feb-15	52.8	48.6
14-Mar-15	53.6	49.7
31-Mar-15	53.9	48.8
<b>Maximum</b>	<b>54.80</b>	<b>49.90</b>
<b>Minimum</b>	<b>51.10</b>	<b>45.60</b>
<b>Mean</b>	<b>52.81</b>	<b>47.68</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

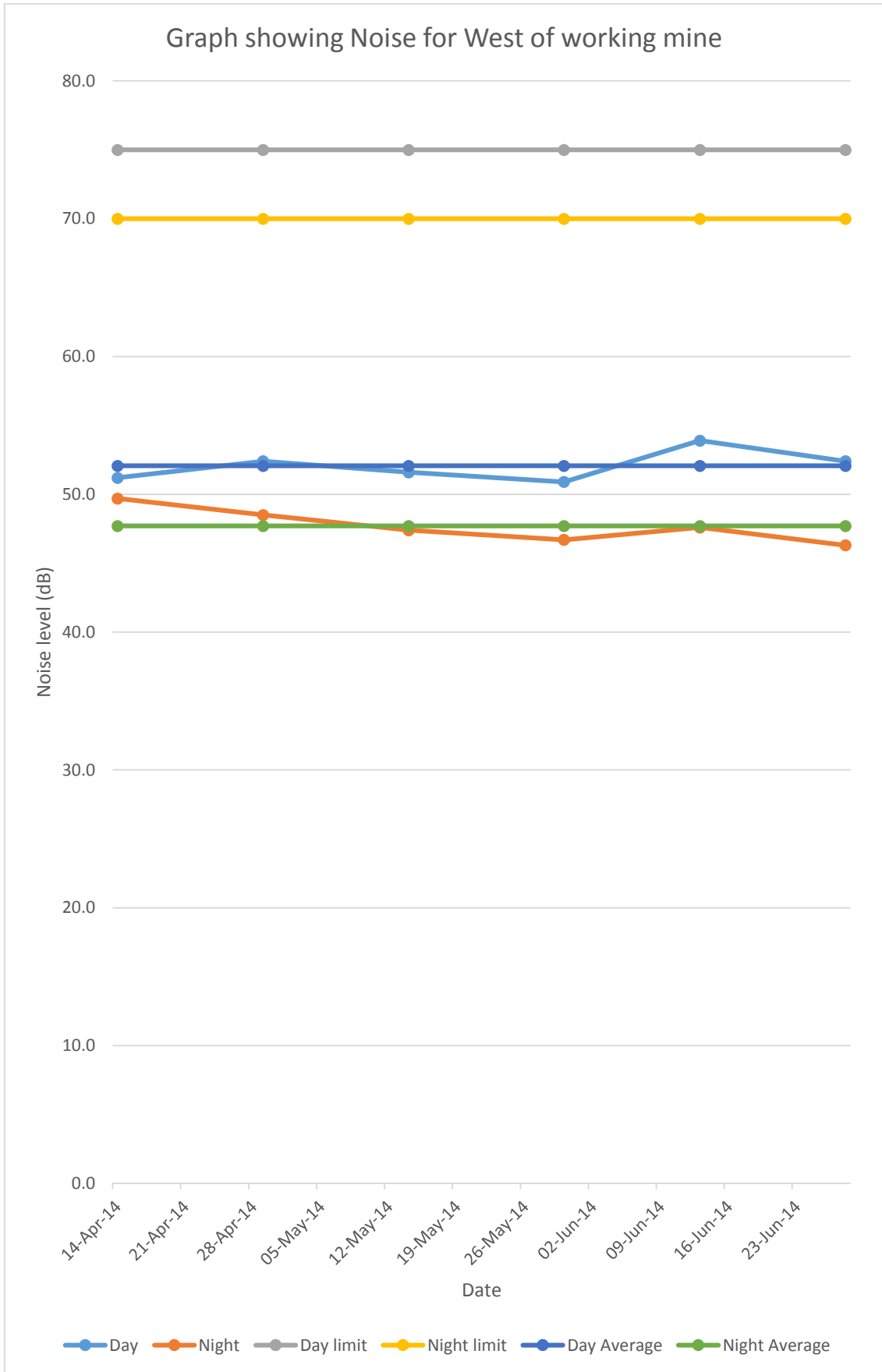
*All units are in dB(A)*



**Table : 53 Noise Level Data****Project :Samleswari OCP****Monitoring Station : West of Working Mine**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Apr-14	51.2	49.7
29-Apr-14	52.4	48.5
14-May-14	51.6	47.4
30-May-14	50.9	46.7
13-Jun-14	53.9	47.6
28-Jun-14	52.4	46.3
<b>Maximum</b>	<b>53.9</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.9</b>	<b>46.3</b>
<b>Mean</b>	<b>52.07</b>	<b>47.70</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

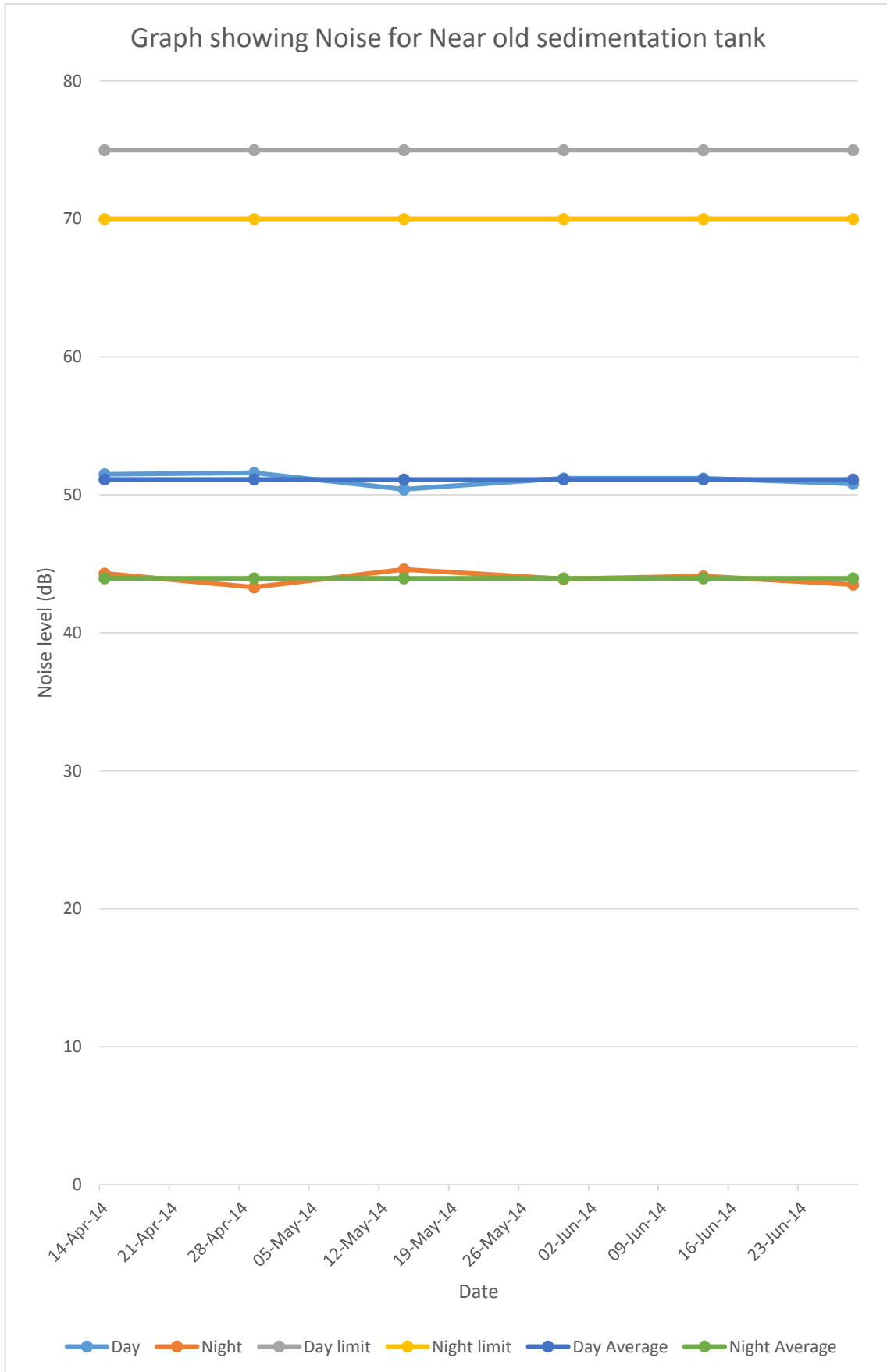
*All units are in dB(A)*



**Table : 54 Noise Level Data****Project :Samleswari OCP****Monitoring Station : Near Old Sedimentation tank**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Apr-14	51.5	44.3
29-Apr-14	51.6	43.3
14-May-14	50.4	44.6
30-May-14	51.2	43.9
13-Jun-14	51.2	44.1
28-Jun-14	50.8	43.5
<b>Maximum</b>	<b>51.6</b>	<b>44.6</b>
<b>Minimum</b>	<b>50.4</b>	<b>43.3</b>
<b>Mean</b>	<b>51.12</b>	<b>43.95</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

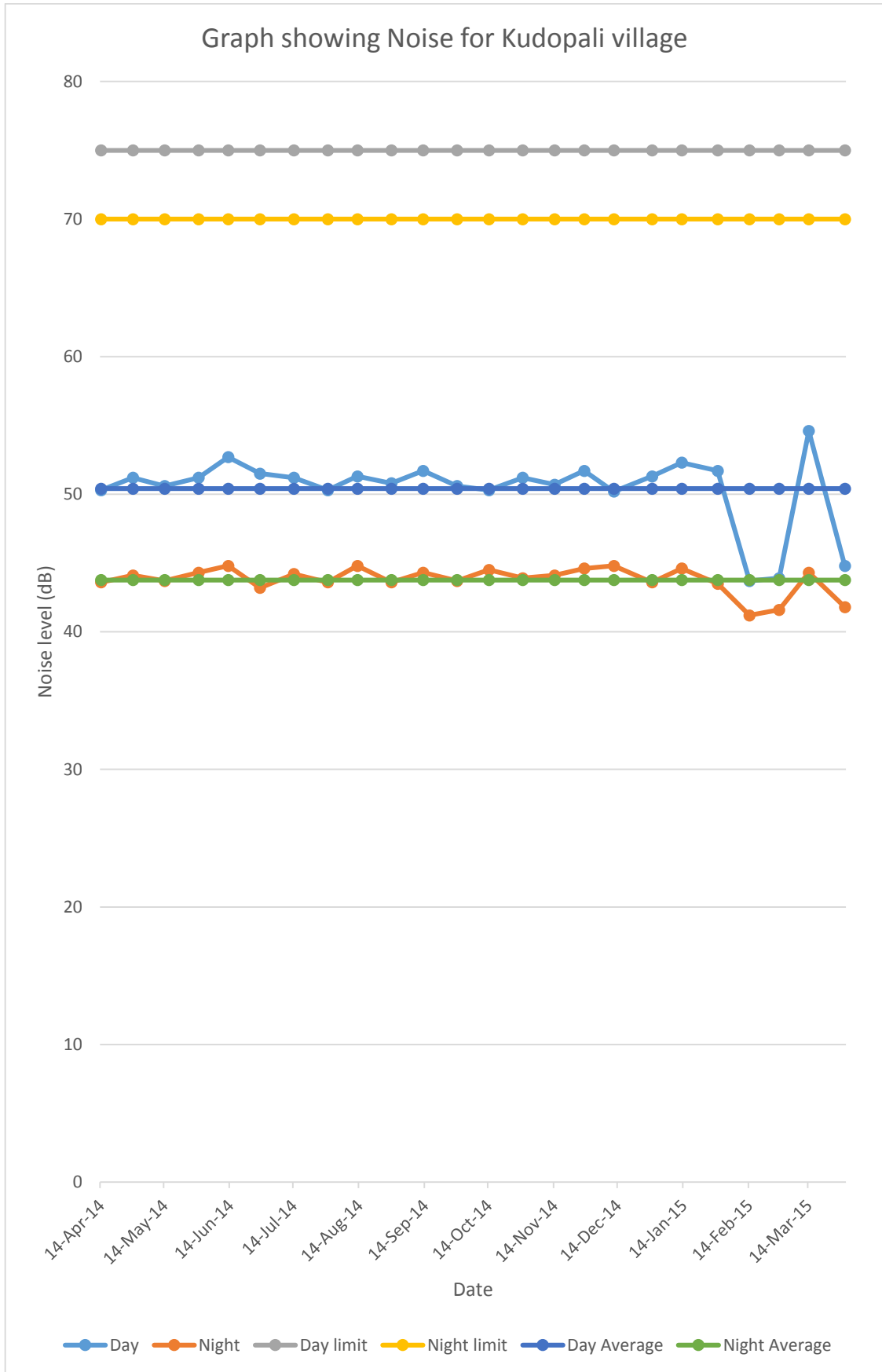
*All units are in dB(A)*



**Table : 55 Noise Level Data**
**Project :Samleswari OCP**
**Monitoring Station :Kudopali Village**

Date of sampling	Day	Night
14-Apr-14	50.3	43.6
29-Apr-14	51.2	44.1
14-May-14	50.6	43.7
30-May-14	51.2	44.3
13-Jun-14	52.7	44.8
28-Jun-14	51.5	43.2
14-Jul-14	51.2	44.2
30-Jul-14	50.3	43.6
13-Aug-14	51.3	44.8
29-Aug-14	50.8	43.6
13-Sep-14	51.7	44.3
29-Sep-14	50.6	43.7
14-Oct-14	50.3	44.5
30-Oct-14	51.2	43.9
14-Nov-14	50.7	44.1
28-Nov-14	51.7	44.6
12-Dec-14	50.2	44.8
30-Dec-14	51.3	43.6
13-Jan-15	52.3	44.6
30-Jan-15	51.7	43.5
14-Feb-15	43.7	41.2
28-Feb-15	43.9	41.6
14-Mar-15	54.6	44.3
31-Mar-15	44.8	41.8
<b>Maximum</b>	<b>54.6</b>	<b>44.8</b>
<b>Minimum</b>	<b>43.7</b>	<b>41.2</b>
<b>Mean</b>	<b>50.41</b>	<b>43.77</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



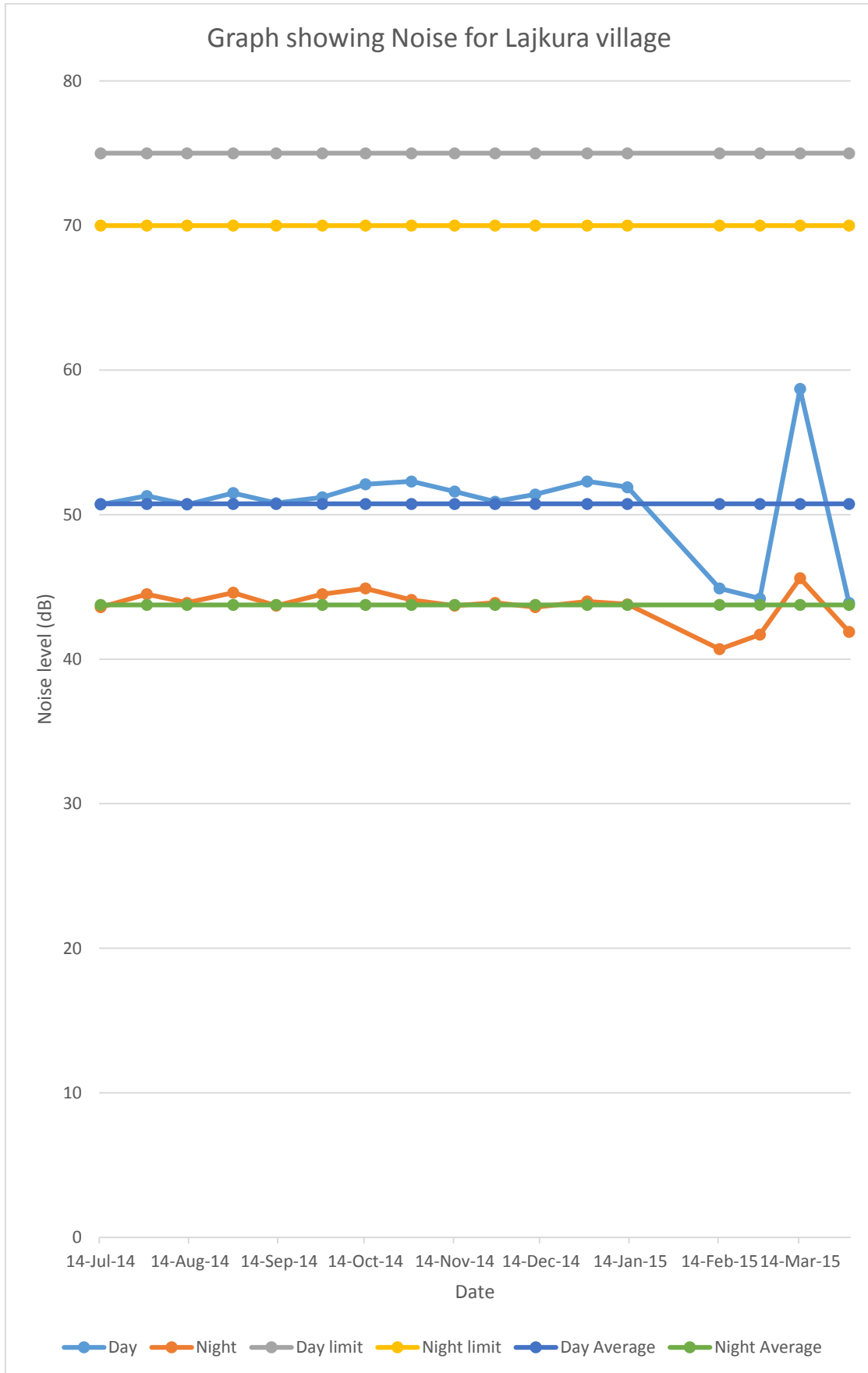
**Table : 56 Noise Level Data**

**Project :Samleswari OCP**

**Monitoring Station :Lajkura Village**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Jul-14	50.7	43.6
30-Jul-14	51.3	44.5
13-Aug-14	50.7	43.9
29-Aug-14	51.5	44.6
13-Sep-14	50.8	43.7
29-Sep-14	51.2	44.5
14-Oct-14	52.1	44.9
30-Oct-14	52.3	44.1
14-Nov-14	51.6	43.7
28-Nov-14	50.9	43.9
12-Dec-14	51.4	43.6
30-Dec-14	52.3	44
13-Jan-15	51.9	43.8
14-Feb-15	44.9	40.7
28-Feb-15	44.2	41.7
14-Mar-15	58.7	45.6
31-Mar-15	43.9	41.9
<b>Maximum</b>	<b>58.70</b>	<b>45.60</b>
<b>Minimum</b>	<b>43.90</b>	<b>40.70</b>
<b>Mean</b>	<b>50.61</b>	<b>43.69</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



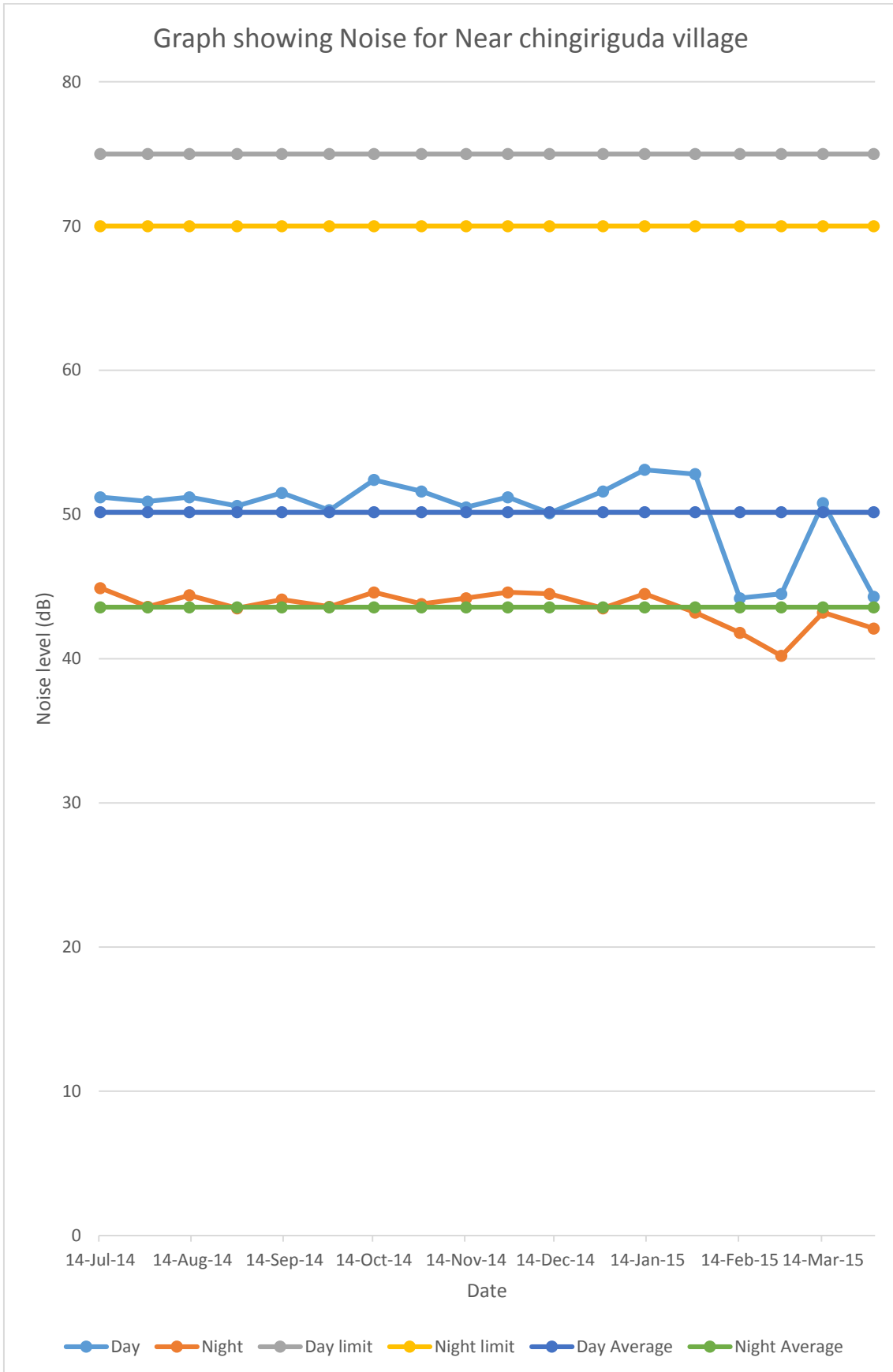
**Table : 57 Noise Level Data**

**Project :Samleswari OCP**

**Monitoring Station : Near Chingriguda Village**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Jul-14	51.2	44.9
30-Jul-14	50.9	43.6
13-Aug-14	51.2	44.4
29-Aug-14	50.6	43.5
13-Sep-14	51.5	44.1
29-Sep-14	50.3	43.6
14-Oct-14	52.4	44.6
30-Oct-14	51.6	43.8
14-Nov-14	50.5	44.2
28-Nov-14	51.2	44.6
12-Dec-14	50.1	44.5
30-Dec-14	51.6	43.5
13-Jan-15	53.1	44.5
30-Jan-15	52.8	43.2
14-Feb-15	44.2	41.8
28-Feb-15	44.5	40.2
14-Mar-15	50.8	43.2
31-Mar-15	44.3	42.1
Maximum	53.10	44.90
Minimum	44.20	40.20
Mean	50.16	43.57
Noise Standards	75	70

*All units are in dB(A)*



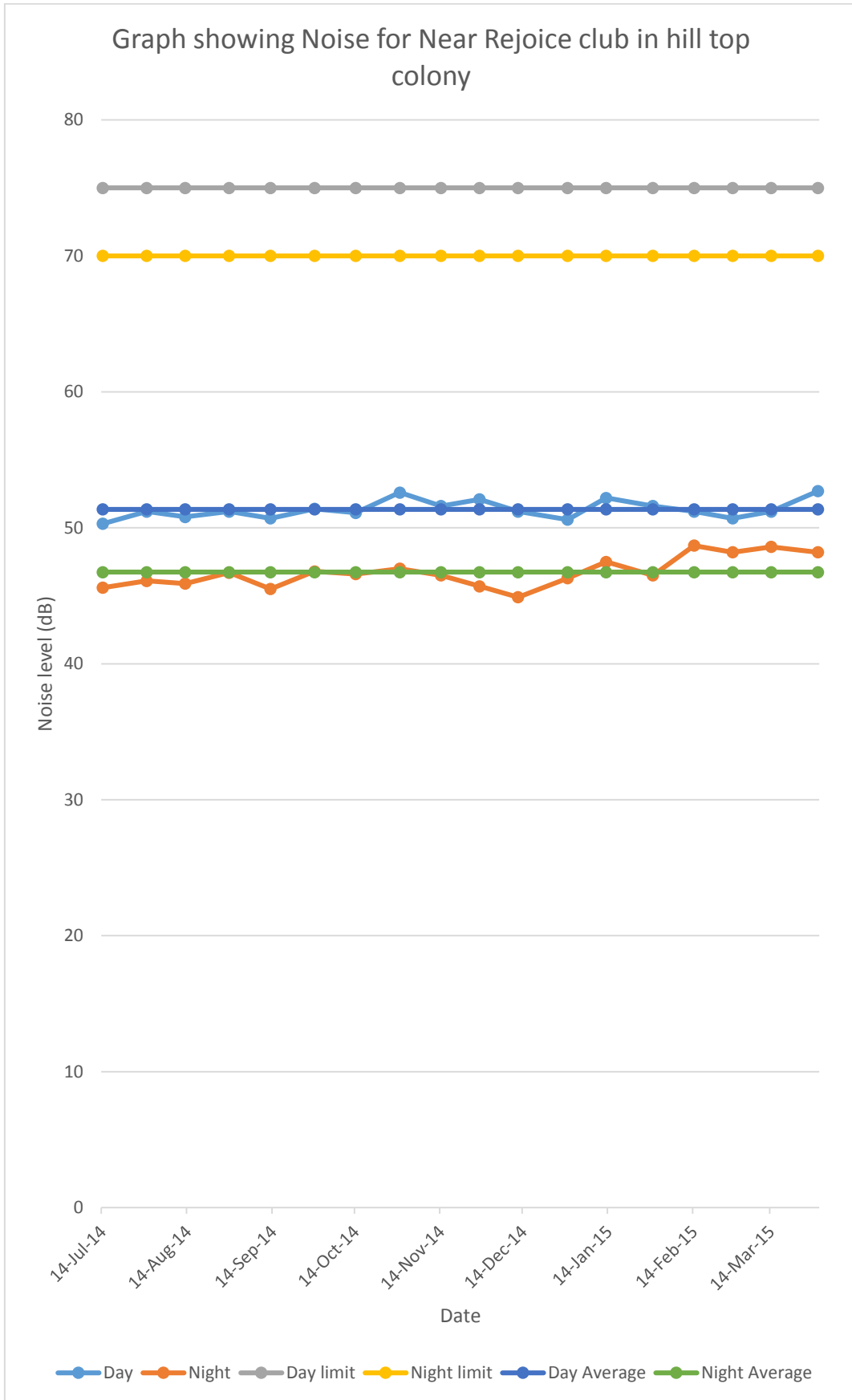
**Table : 58 Noise Level Data**

**Project :Samleswari OCP**

**Monitoring Station : Near Re-joice Club in Hiltop Colony**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Jul-14	50.3	45.6
30-Jul-14	51.2	46.1
13-Aug-14	50.8	45.9
29-Aug-14	51.2	46.7
13-Sep-14	50.7	45.5
29-Sep-14	51.4	46.8
14-Oct-14	51.1	46.6
30-Oct-14	52.6	47
14-Nov-14	51.6	46.5
28-Nov-14	52.1	45.7
12-Dec-14	51.2	44.9
30-Dec-14	50.6	46.3
13-Jan-15	52.2	47.5
30-Jan-15	51.6	46.5
14-Feb-15	51.2	48.7
28-Feb-15	50.7	48.2
14-Mar-15	51.2	48.6
31-Mar-15	52.7	48.2
<b>Maximum</b>	<b>52.70</b>	<b>48.70</b>
<b>Minimum</b>	<b>50.30</b>	<b>44.90</b>
<b>Mean</b>	<b>51.36</b>	<b>46.74</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



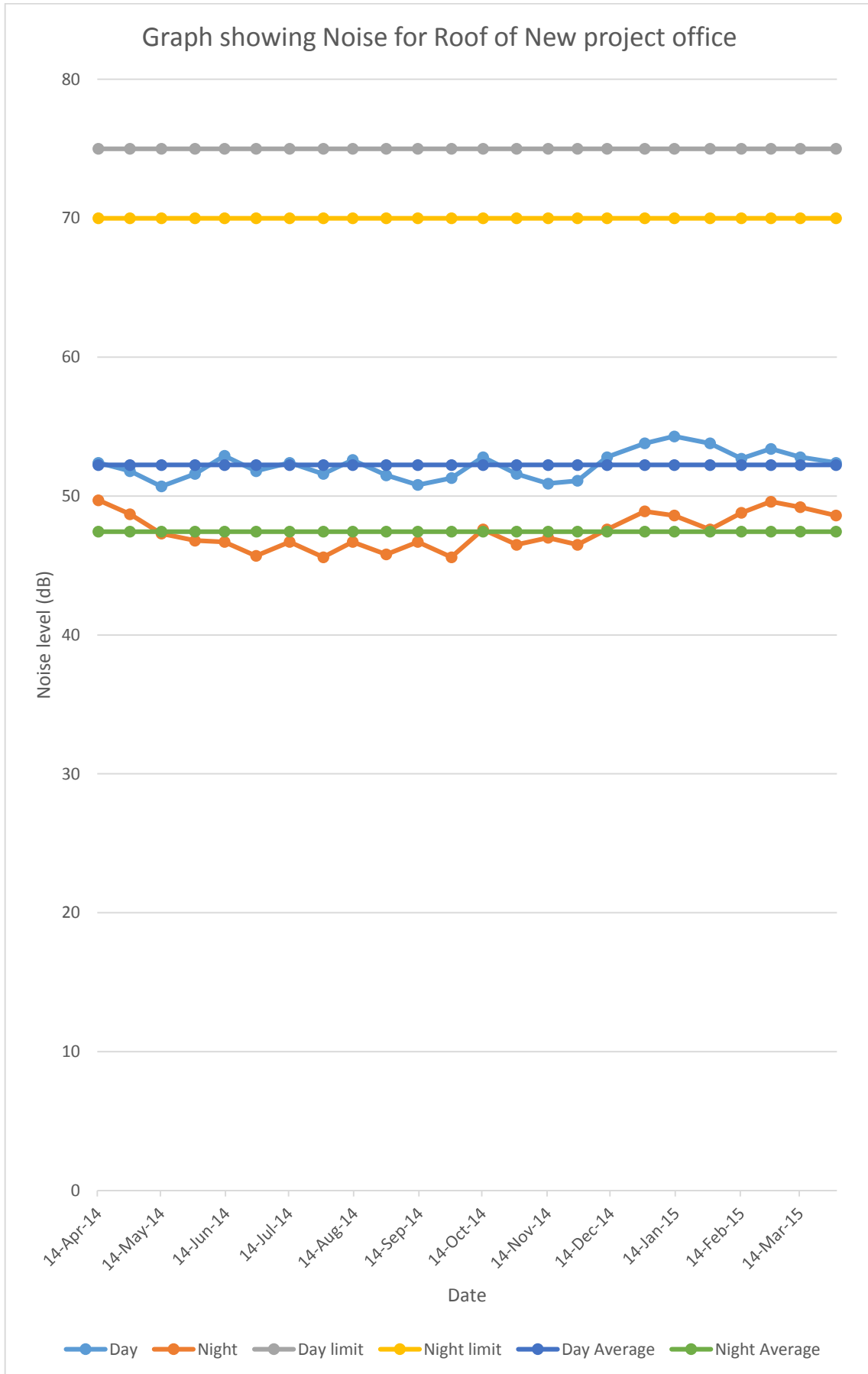
**Table : 59 Noise Level Data**

**Project :Samleswari OCP**

**Monitoring Station : Roof of New Project office**

Date of sampling	Day	Night
14-Apr-14	52.4	49.7
29-Apr-14	51.8	48.7
14-May-14	50.7	47.3
30-May-14	51.6	46.8
13-Jun-14	52.9	46.7
28-Jun-14	51.8	45.7
14-Jul-14	52.4	46.7
30-Jul-14	51.6	45.6
13-Aug-14	52.6	46.7
29-Aug-14	51.5	45.8
13-Sep-14	50.8	46.7
29-Sep-14	51.3	45.6
14-Oct-14	52.8	47.6
30-Oct-14	51.6	46.5
14-Nov-14	50.9	47
28-Nov-14	51.1	46.5
12-Dec-14	52.8	47.6
30-Dec-14	53.8	48.9
13-Jan-15	54.3	48.6
30-Jan-15	53.8	47.6
14-Feb-15	52.7	48.8
28-Feb-15	53.4	49.6
14-Mar-15	52.8	49.2
31-Mar-15	52.4	48.6
<b>Maximum</b>	<b>54.3</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.7</b>	<b>45.6</b>
<b>Mean</b>	<b>52.24</b>	<b>47.44</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



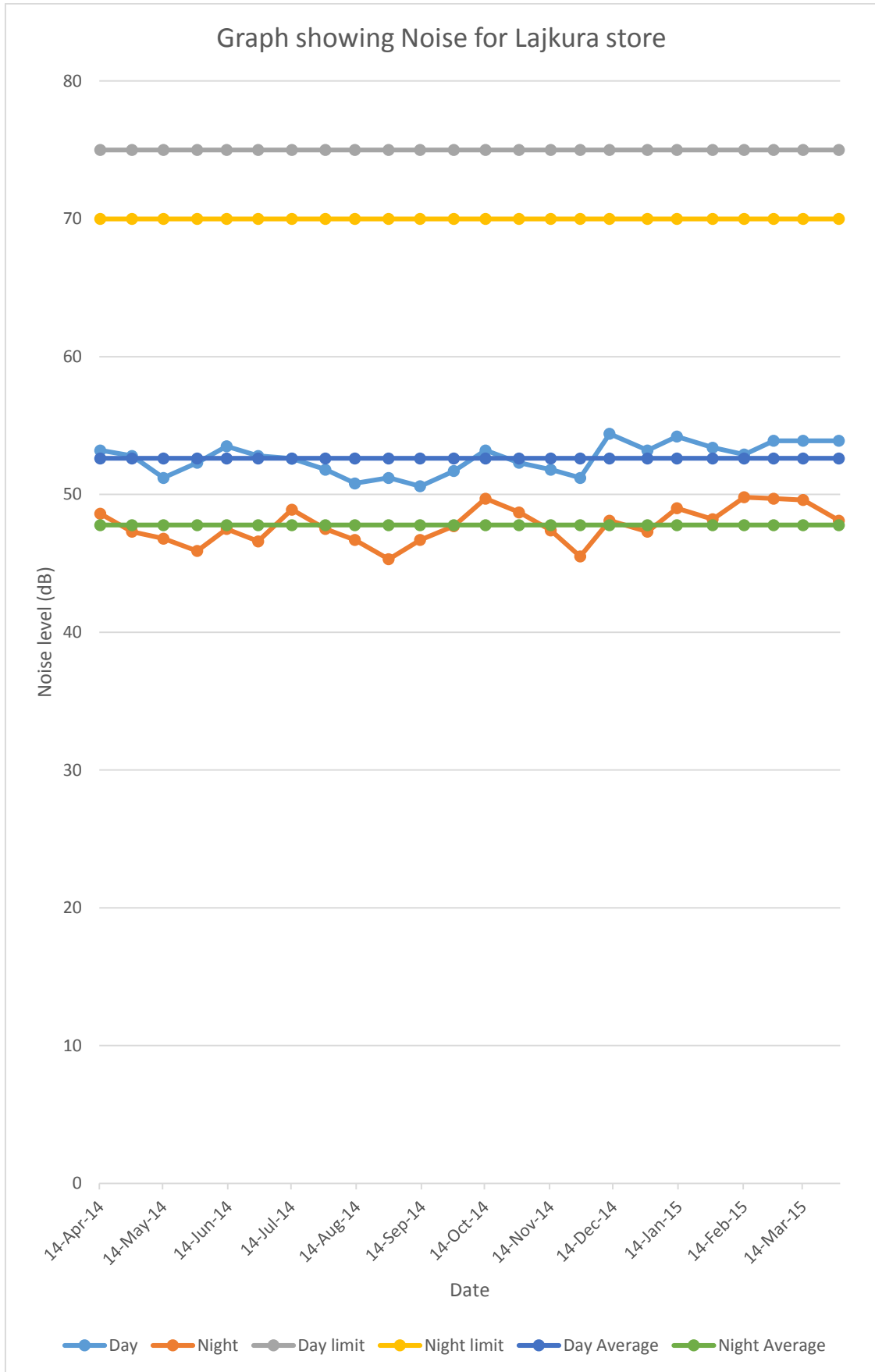
**Table : 60 Noise Level Data**

**Project :Lajkura OCP**

**Monitoring Station :Lajkura Store**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Apr-14	53.2	48.6
29-Apr-14	52.8	47.3
14-May-14	51.2	46.8
30-May-14	52.3	45.9
13-Jun-14	53.5	47.5
28-Jun-14	52.8	46.6
14-Jul-14	52.6	48.9
30-Jul-14	51.8	47.5
13-Aug-14	50.8	46.7
29-Aug-14	51.2	45.3
13-Sep-14	50.6	46.7
29-Sep-14	51.7	47.7
14-Oct-14	53.2	49.7
30-Oct-14	52.3	48.7
14-Nov-14	51.8	47.4
28-Nov-14	51.2	45.5
12-Dec-14	54.4	48.1
30-Dec-14	53.2	47.3
13-Jan-15	54.2	49
30-Jan-15	53.4	48.2
14-Feb-15	52.9	49.8
28-Feb-15	53.9	49.7
14-Mar-15	53.9	49.6
31-Mar-15	53.9	48.1
<b>Maximum</b>	<b>54.4</b>	<b>49.8</b>
<b>Minimum</b>	<b>50.6</b>	<b>45.3</b>
<b>Mean</b>	<b>52.62</b>	<b>47.78</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

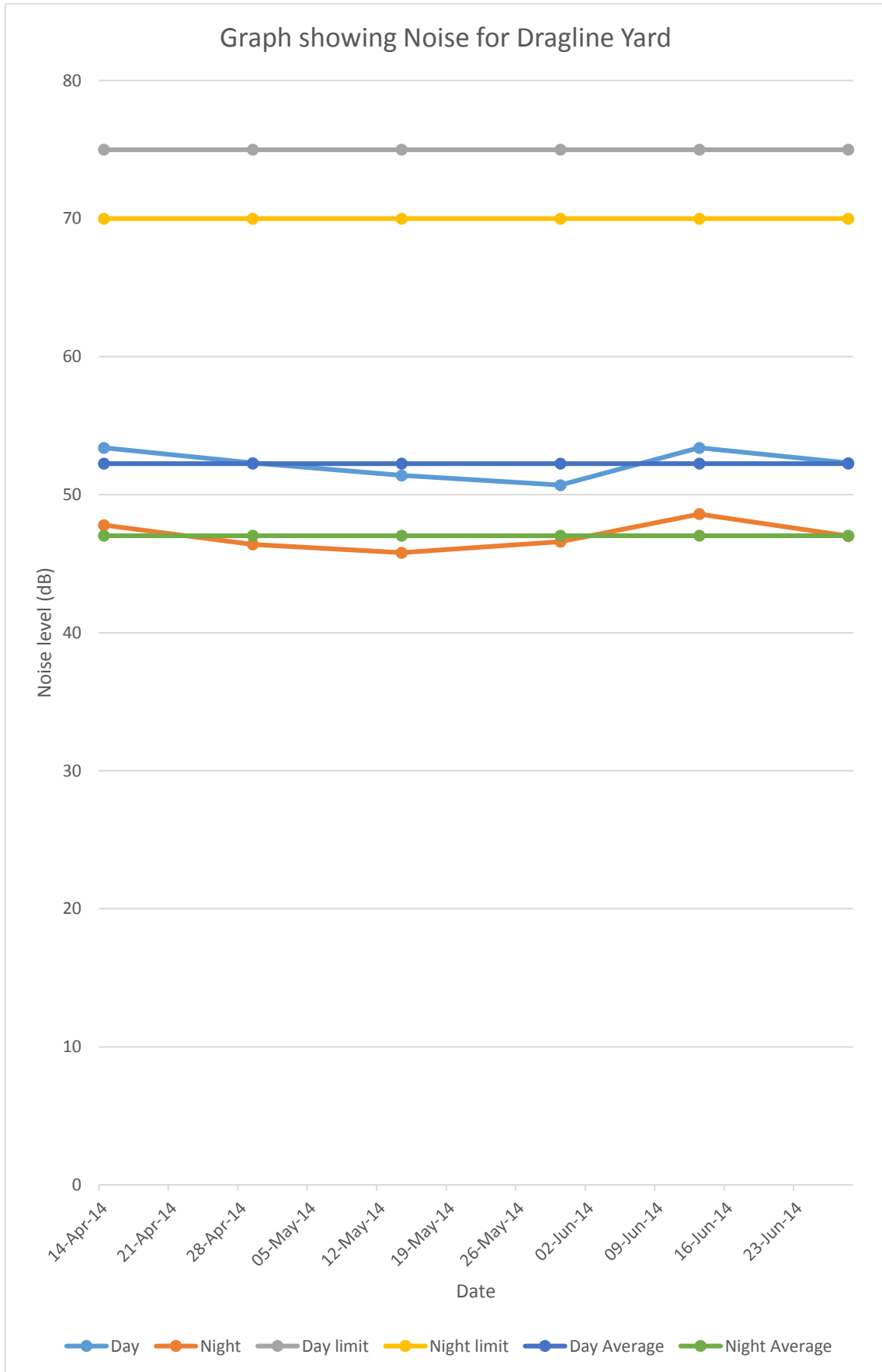
*All units are in dB(A)*



**Table : 61 Noise Level Data****Project :Lajkura OCP****Monitoring Station :Dragline Yard**

<b>Date of sampling</b>	<b>Day</b>	<b>Night</b>
14-Apr-14	53.4	47.8
29-Apr-14	52.3	46.4
14-May-14	51.4	45.8
30-May-14	50.7	46.6
13-Jun-14	53.4	48.6
28-Jun-14	52.3	47
<b>Maximum</b>	<b>53.4</b>	<b>48.6</b>
<b>Minimum</b>	<b>50.7</b>	<b>45.8</b>
<b>Mean</b>	<b>52.25</b>	<b>47.03</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



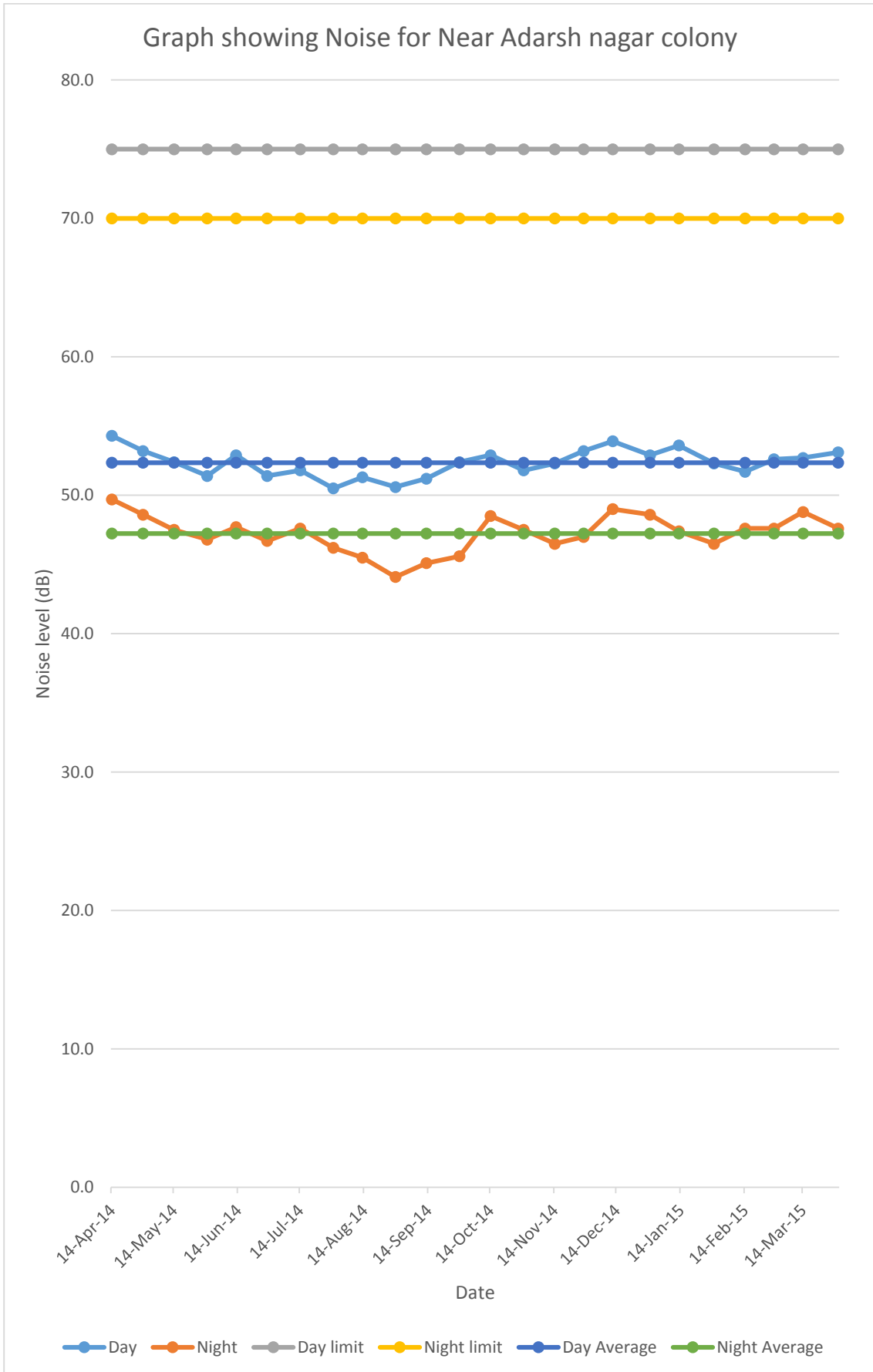
**Table : 62 Noise Level Data**

**Project :Lajkura OCP**

**Monitoring Station :Near Adarsh Nagar Colony**

Date of sampling	Day	Night
14-Apr-14	54.3	49.7
29-Apr-14	53.2	48.6
14-May-14	52.4	47.5
30-May-14	51.4	46.8
13-Jun-14	52.9	47.7
28-Jun-14	51.4	46.7
14-Jul-14	51.8	47.6
30-Jul-14	50.5	46.2
13-Aug-14	51.3	45.5
29-Aug-14	50.6	44.1
13-Sep-14	51.2	45.1
29-Sep-14	52.4	45.6
14-Oct-14	52.9	48.5
30-Oct-14	51.8	47.5
14-Nov-14	52.3	46.5
28-Nov-14	53.2	47
12-Dec-14	53.9	49
30-Dec-14	52.9	48.6
13-Jan-15	53.6	47.4
30-Jan-15	52.3	46.5
14-Feb-15	51.7	47.6
28-Feb-15	52.6	47.6
14-Mar-15	52.7	48.8
31-Mar-15	53.1	47.6
<b>Maximum</b>	<b>54.3</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.5</b>	<b>44.1</b>
<b>Mean</b>	<b>52.35</b>	<b>47.24</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All units are in dB(A)*



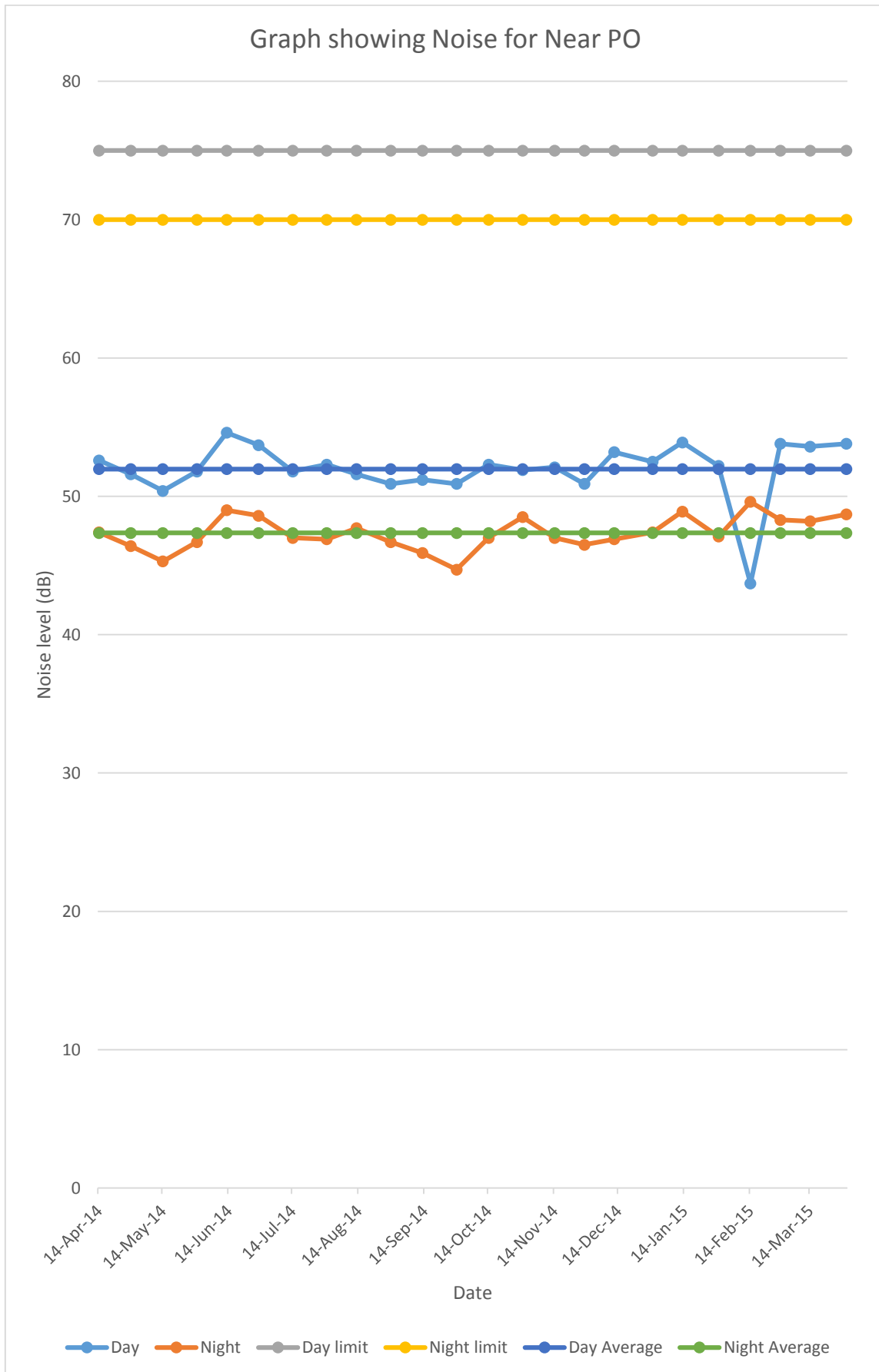
**Table : 63 Noise Level Data**

**Project :Lajkura OCP**

**Monitoring Station :Near Project Office**

Date of sampling	Day	Night
14-Apr-14	52.6	47.4
29-Apr-14	51.6	46.4
14-May-14	50.4	45.3
30-May-14	51.8	46.7
13-Jun-14	54.6	49
28-Jun-14	53.7	48.6
14-Jul-14	51.8	47
30-Jul-14	52.3	46.9
13-Aug-14	51.6	47.7
29-Aug-14	50.9	46.7
13-Sep-14	51.2	45.9
29-Sep-14	50.9	44.7
14-Oct-14	52.3	47
30-Oct-14	51.9	48.5
14-Nov-14	52.1	47
28-Nov-14	50.9	46.5
12-Dec-14	53.2	46.9
30-Dec-14	52.5	47.4
13-Jan-15	53.9	48.9
30-Jan-15	52.2	47.1
14-Feb-15	43.7	49.6
28-Feb-15	53.8	48.3
14-Mar-15	53.6	48.2
31-Mar-15	53.8	48.7
<b>Maximum</b>	<b>54.6</b>	<b>49.6</b>
<b>Minimum</b>	<b>43.7</b>	<b>44.7</b>
<b>Mean</b>	<b>51.97</b>	<b>47.35</b>
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

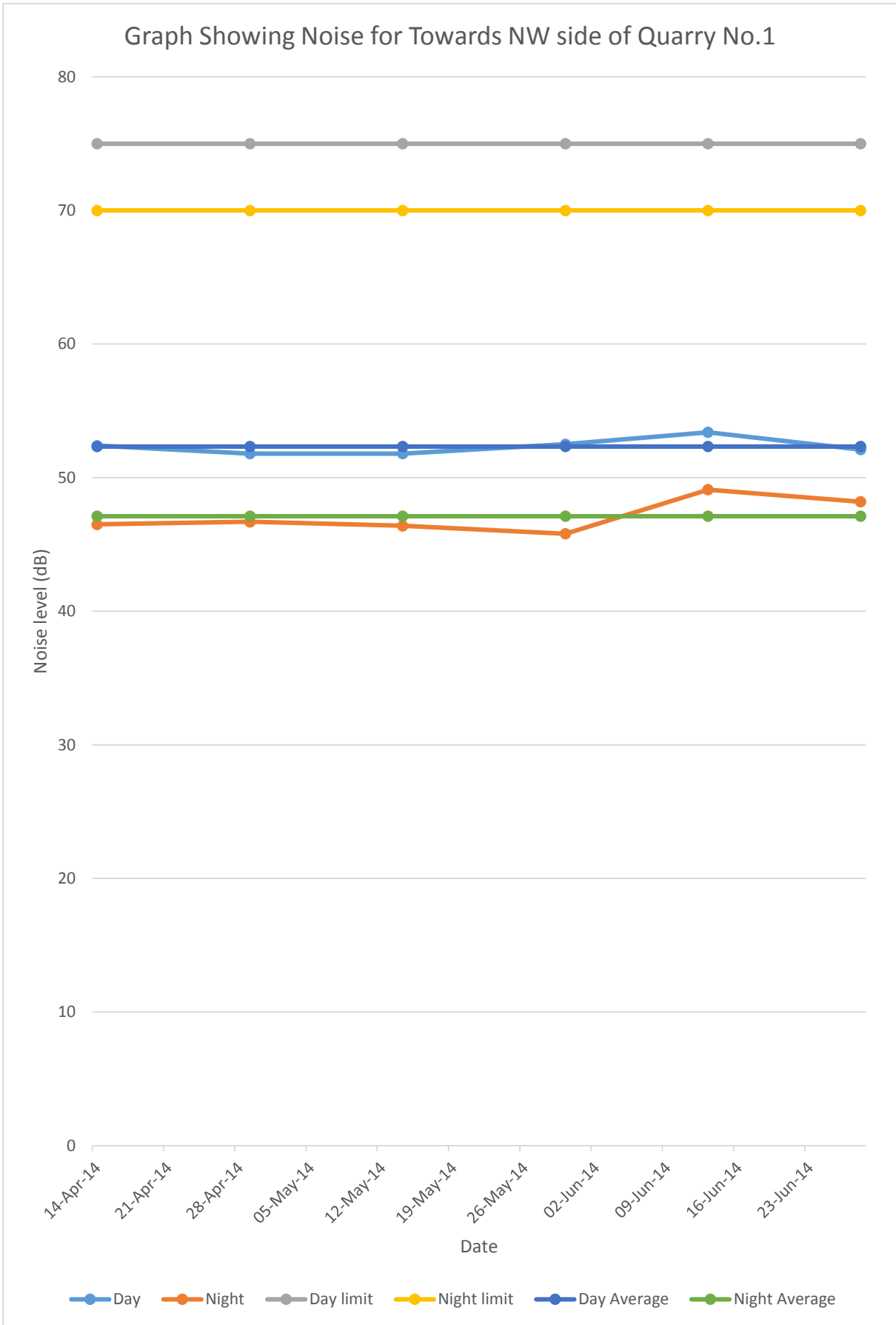
*All units are in dB(A)*



**Table : 64 Noise Level Data****Project :Lakhanpur OCP****Monitoring Station : Towards NW Side of Quarry No-1**

<b>Date</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	52.4	46.5
29-Apr-14	51.8	46.7
14-May-14	51.8	46.4
30-May-14	52.5	45.8
13-Jun-14	53.4	49.1
28-Jun-14	52.1	48.2
<b>Maximum</b>	<b>53.4</b>	<b>49.1</b>
<b>Minimum</b>	<b>51.8</b>	<b>45.8</b>
<b>Average</b>	<b>52.33</b>	<b>47.12</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



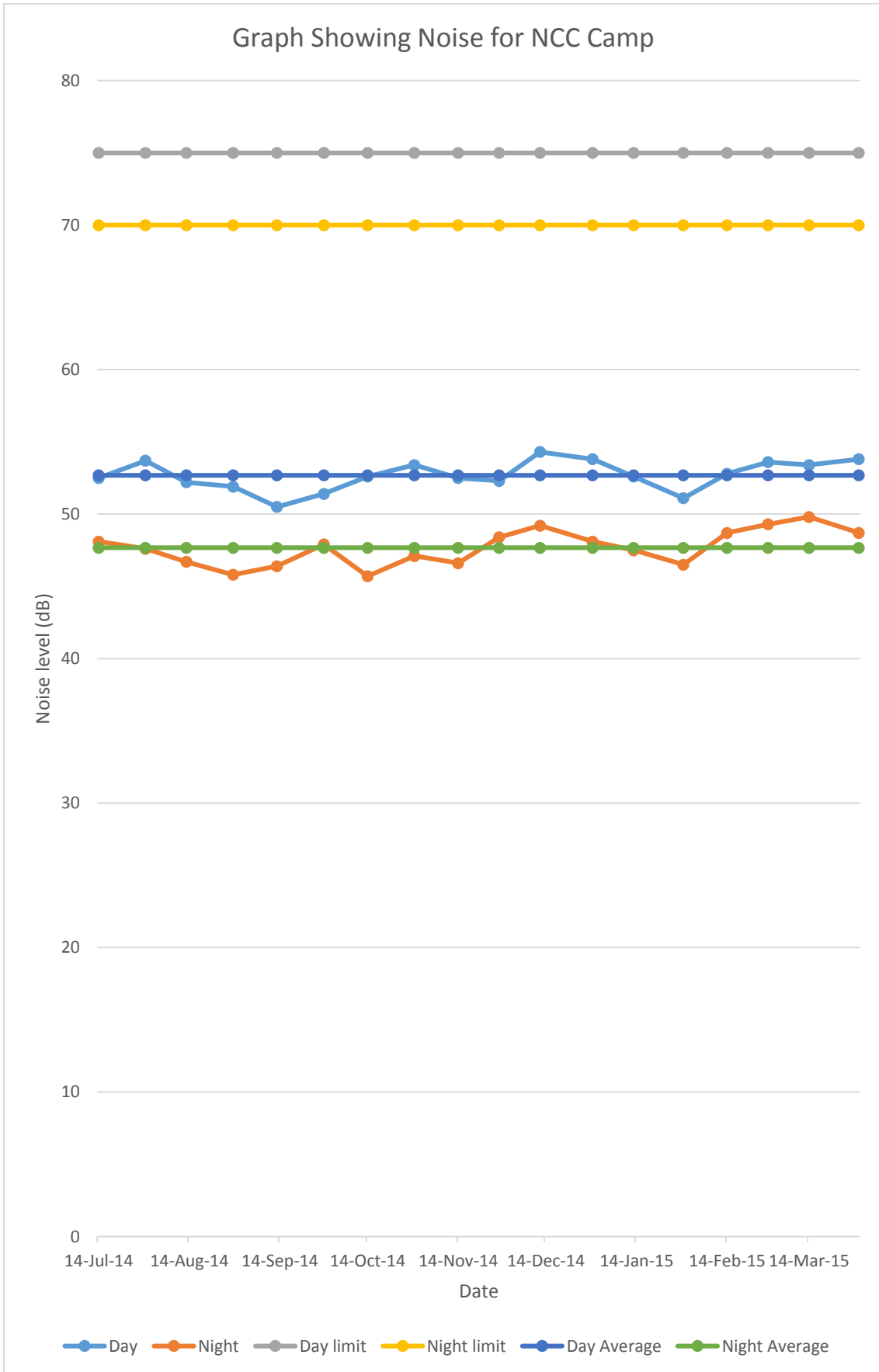
**Table : 65 Noise Level Data**

**Project :Lakhanpur OCP**

**Monitoring Station : NCC Camp**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Jul-14	52.5	48.1
30-Jul-14	53.7	47.6
13-Aug-14	52.2	46.7
29-Aug-14	51.9	45.8
13-Sep-14	50.5	46.4
29-Sep-14	51.4	47.9
14-Oct-14	52.6	45.7
30-Oct-14	53.4	47.1
14-Nov-14	52.5	46.6
28-Nov-14	52.3	48.4
12-Dec-14	54.3	49.2
30-Dec-14	53.8	48.1
13-Jan-15	52.6	47.5
30-Jan-15	51.1	46.5
14-Feb-15	52.8	48.7
28-Feb-15	53.6	49.3
14-Mar-15	53.4	49.8
31-Mar-15	53.8	48.7
<b>Maximum</b>	<b>54.3</b>	<b>49.8</b>
<b>Minimum</b>	<b>50.5</b>	<b>45.7</b>
<b>Average</b>	<b>52.69</b>	<b>47.67</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



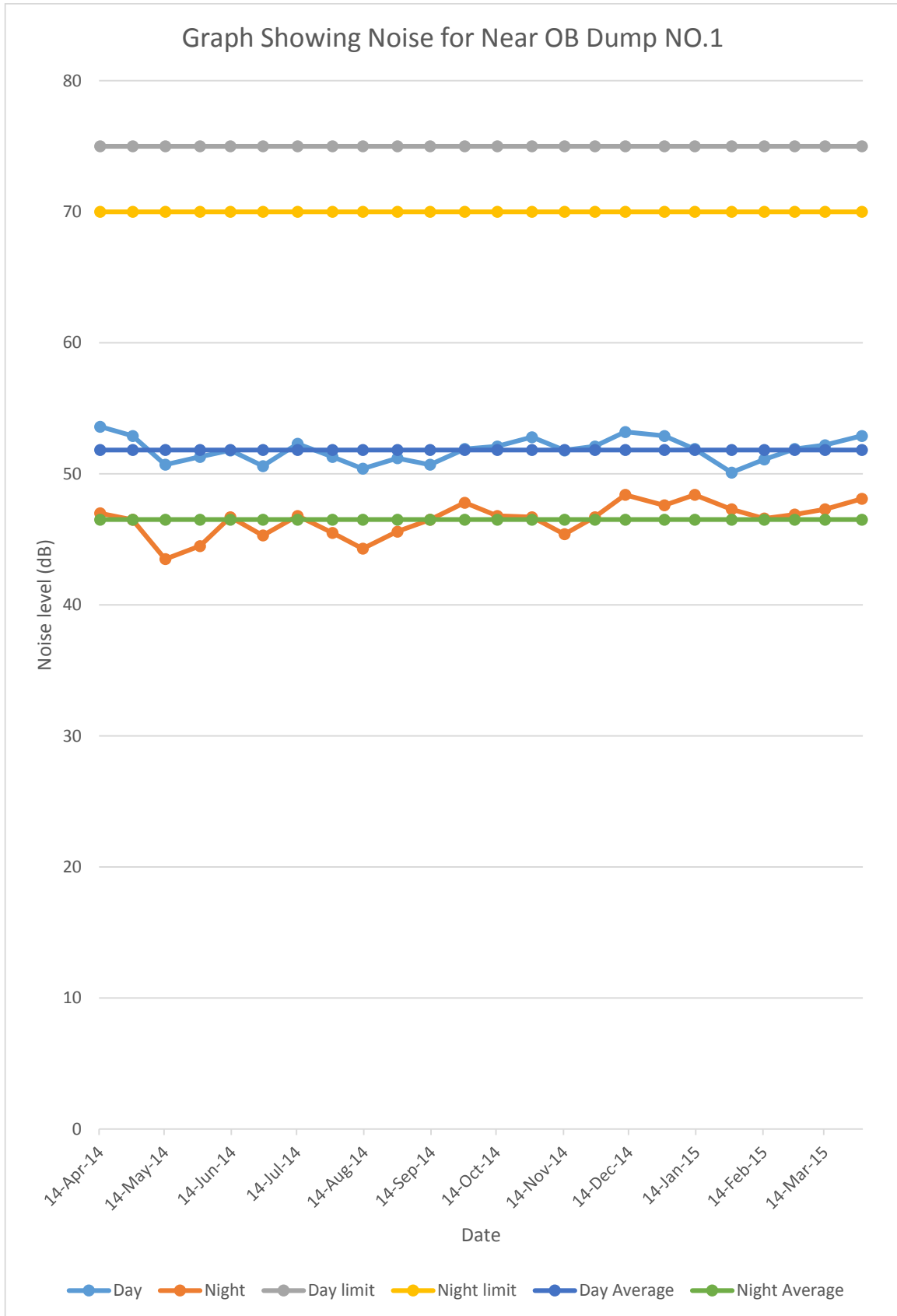
**Table : 66 Noise Level Data**

**Project :Lakhanpur OCP**

**Monitoring Station : Near OB Dump No-1**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	53.6	47
29-Apr-14	52.9	46.5
14-May-14	50.7	43.5
30-May-14	51.3	44.5
13-Jun-14	51.8	46.7
28-Jun-14	50.6	45.3
14-Jul-14	52.3	46.8
30-Jul-14	51.3	45.5
13-Aug-14	50.4	44.3
29-Aug-14	51.2	45.6
13-Sep-14	50.7	46.5
29-Sep-14	51.9	47.8
14-Oct-14	52.1	46.8
30-Oct-14	52.8	46.7
14-Nov-14	51.8	45.4
28-Nov-14	52.1	46.7
12-Dec-14	53.2	48.4
30-Dec-14	52.9	47.6
13-Jan-15	51.9	48.4
30-Jan-15	50.1	47.3
14-Feb-15	51.1	46.6
28-Feb-15	51.9	46.9
14-Mar-15	52.2	47.3
31-Mar-15	52.9	48.1
<b>Maximum</b>	<b>53.6</b>	<b>48.4</b>
<b>Minimum</b>	<b>50.1</b>	<b>43.5</b>
<b>Average</b>	<b>51.82</b>	<b>46.51</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



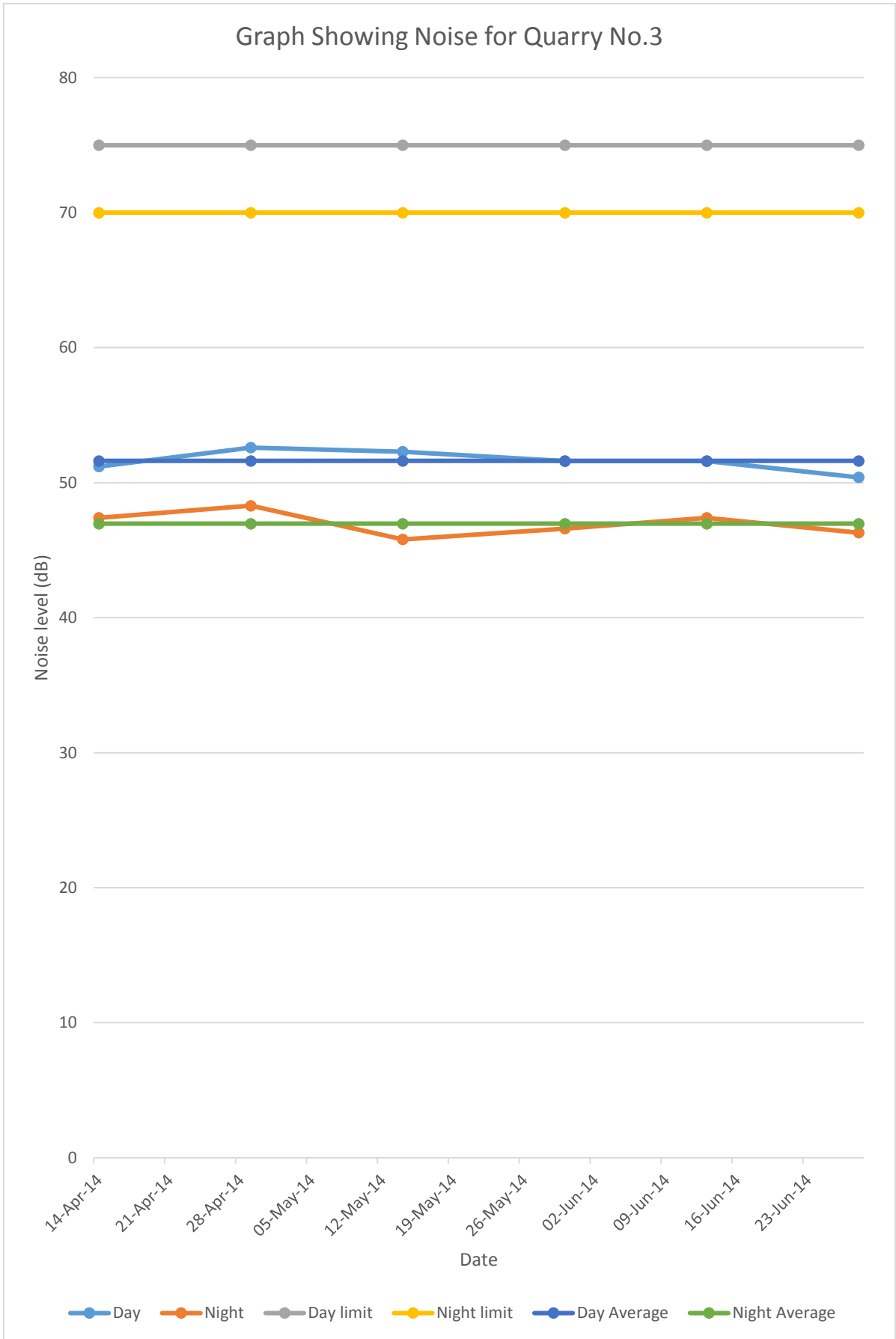
**Table : 67 Noise Level Data**

**Project :Lakhanpur OCP**

**Monitoring Station : Quarry No.3**

<b>Date</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	51.2	47.4
29-Apr-14	52.6	48.3
14-May-14	52.3	45.8
30-May-14	51.6	46.6
13-Jun-14	51.6	47.4
28-Jun-14	50.4	46.3
<b>Maximum</b>	<b>52.6</b>	<b>48.3</b>
<b>Minimum</b>	<b>50.4</b>	<b>45.8</b>
<b>Average</b>	<b>51.62</b>	<b>46.97</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



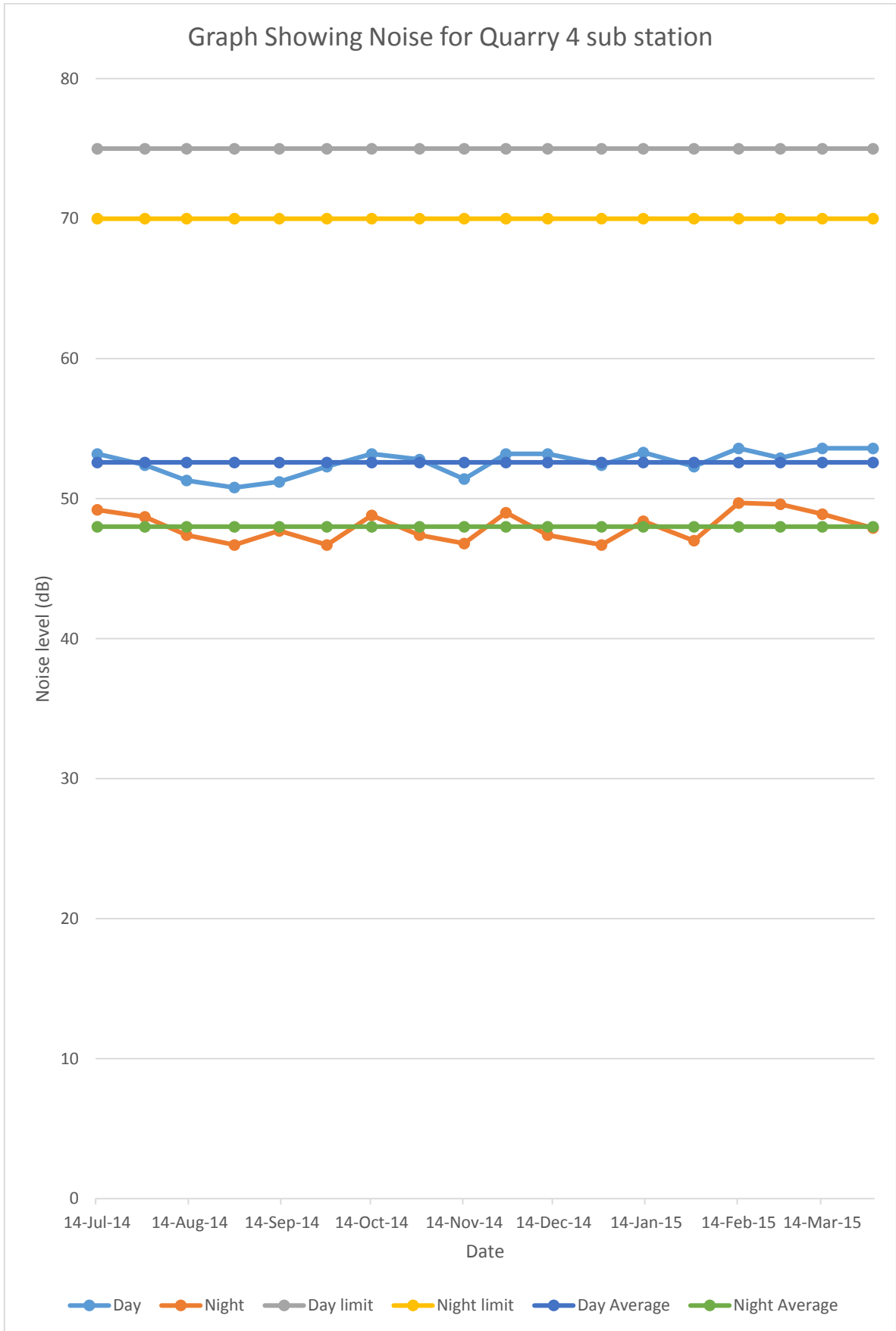
**Table : 68 Noise Level Data**

**Project :Lakhanpur OCP**

**Monitoring Station : Quarry No.4 Sub Station**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Jul-14	53.2	49.2
30-Jul-14	52.4	48.7
13-Aug-14	51.3	47.4
29-Aug-14	50.8	46.7
13-Sep-14	51.2	47.7
29-Sep-14	52.3	46.7
14-Oct-14	53.2	48.8
30-Oct-14	52.8	47.4
14-Nov-14	51.4	46.8
28-Nov-14	53.2	49
12-Dec-14	53.2	47.4
30-Dec-14	52.4	46.7
13-Jan-15	53.3	48.4
30-Jan-15	52.3	47
14-Feb-15	53.6	49.7
28-Feb-15	52.9	49.6
14-Mar-15	53.6	48.9
31-Mar-15	53.6	47.9
<b>Maximum</b>	<b>53.6</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.8</b>	<b>46.7</b>
<b>Average</b>	<b>52.59</b>	<b>48.00</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

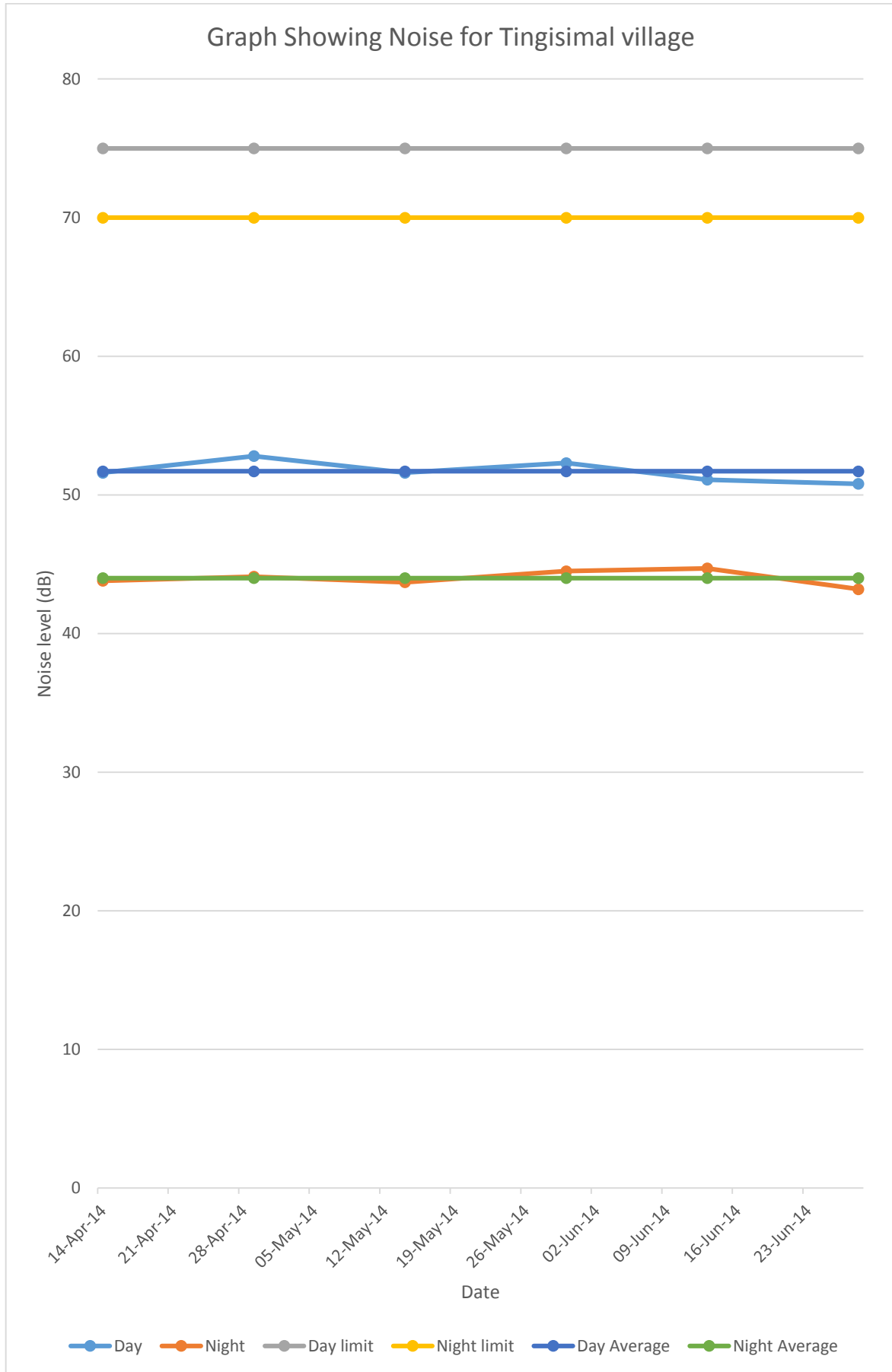
*All values are in dB(A)*



**Table : 69 Noise Level Data****Project :Lakhanpur OCP****Monitoring Station :Tingismal village**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	51.6	43.8
29-Apr-14	52.8	44.1
14-May-14	51.6	43.7
30-May-14	52.3	44.5
13-Jun-14	51.1	44.7
28-Jun-14	50.8	43.2
<b>Maximum</b>	<b>52.8</b>	<b>44.7</b>
<b>Minimum</b>	<b>50.8</b>	<b>43.2</b>
<b>Average</b>	<b>51.70</b>	<b>44.00</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



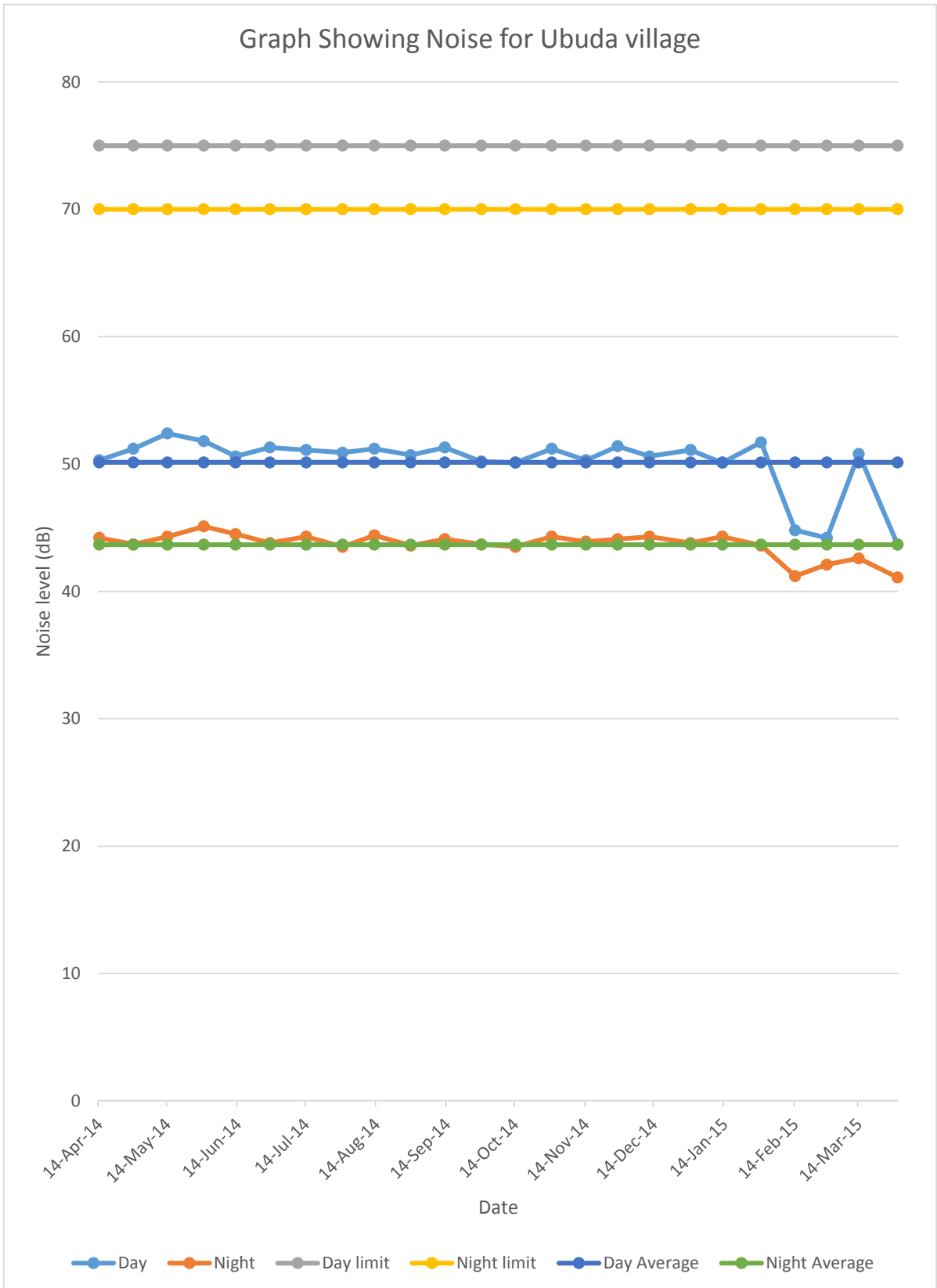
**Table : 70 Noise Level Data**

**Project :Lakhanpur OCP**

**Monitoring Station :Ubuda Village**

<b>Date of sampling</b>	<b>Monitoring station</b>	<b>Day</b>	<b>Night</b>
14-Apr-14	Ubuda Village	50.3	44.2
29-Apr-14	Khairakuni Village	51.2	43.7
14-May-14	Ubuda Village	52.4	44.3
30-May-14	Khairakuni Village	51.8	45.1
13-Jun-14	Ubuda Village	50.6	44.5
28-Jun-14	Khairakuni Village	51.3	43.8
14-Jul-14	Ubuda Village	51.1	44.3
30-Jul-14	Ubuda Village	50.9	43.5
13-Aug-14	Ubuda Village	51.2	44.4
29-Aug-14	Ubuda Village	50.7	43.6
13-Sep-14	Ubuda Village	51.3	44.1
29-Sep-14	Ubuda Village	50.2	43.7
14-Oct-14	Ubuda Village	50.1	43.5
30-Oct-14	Ubuda Village	51.2	44.3
14-Nov-14	Ubuda Village	50.3	43.9
28-Nov-14	Ubuda Village	51.4	44.1
12-Dec-14	Ubuda Village	50.6	44.3
30-Dec-14	Ubuda Village	51.1	43.8
13-Jan-15	Ubuda Village	50.1	44.3
30-Jan-15	Ubuda Village	51.7	43.6
14-Feb-15	Ubuda Village	44.8	41.2
28-Feb-15	Ubuda Village	44.2	42.1
14-Mar-15	Ubuda Village	50.8	42.6
31-Mar-15	Ubuda Village	43.7	41.1
	<b>Maximum</b>	<b>52.4</b>	<b>45.1</b>
	<b>Minimum</b>	<b>43.7</b>	<b>41.1</b>
	<b>Average</b>	<b>50.13</b>	<b>43.67</b>
	<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



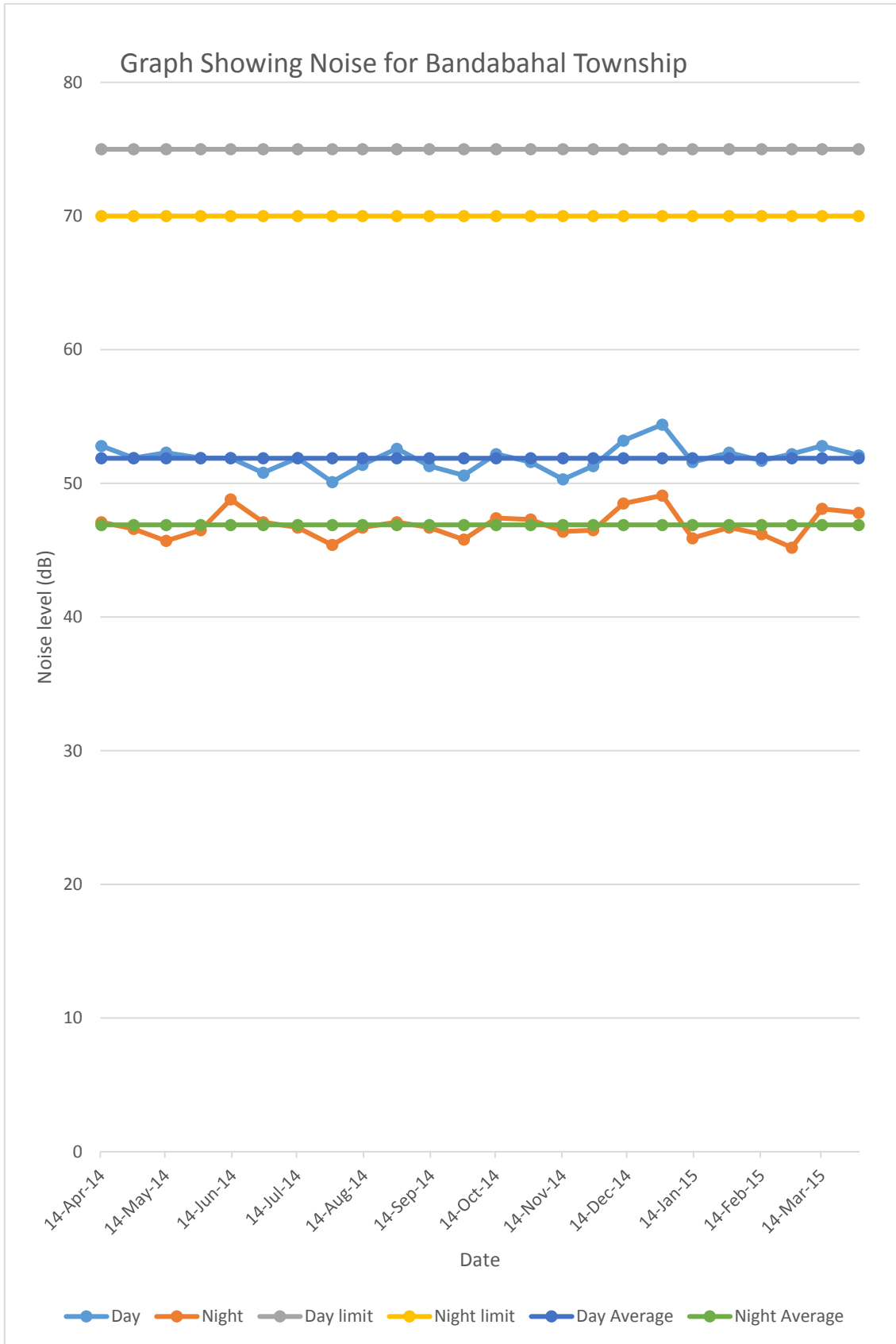
**Table : 71 Noise Level Data**

**Project :Belpahar OCP**

**Monitoring Station :Bandabahal Township**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	52.8	47.1
29-Apr-14	51.9	46.6
14-May-14	52.3	45.7
30-May-14	51.9	46.5
13-Jun-14	51.9	48.8
28-Jun-14	50.8	47.1
14-Jul-14	51.9	46.7
30-Jul-14	50.1	45.4
13-Aug-14	51.4	46.7
29-Aug-14	52.6	47.1
13-Sep-14	51.3	46.7
29-Sep-14	50.6	45.8
14-Oct-14	52.2	47.4
30-Oct-14	51.6	47.3
14-Nov-14	50.3	46.4
28-Nov-14	51.3	46.5
12-Dec-14	53.2	48.5
30-Dec-14	54.4	49.1
13-Jan-15	51.6	45.9
30-Jan-15	52.3	46.7
14-Feb-15	51.7	46.2
28-Feb-15	52.2	45.2
14-Mar-15	52.8	48.1
31-Mar-15	52.1	47.8
Maximum	54.4	49.1
Minimum	50.1	45.2
Average	51.88	46.89
Standard	75	70

*All values are in dB(A)*



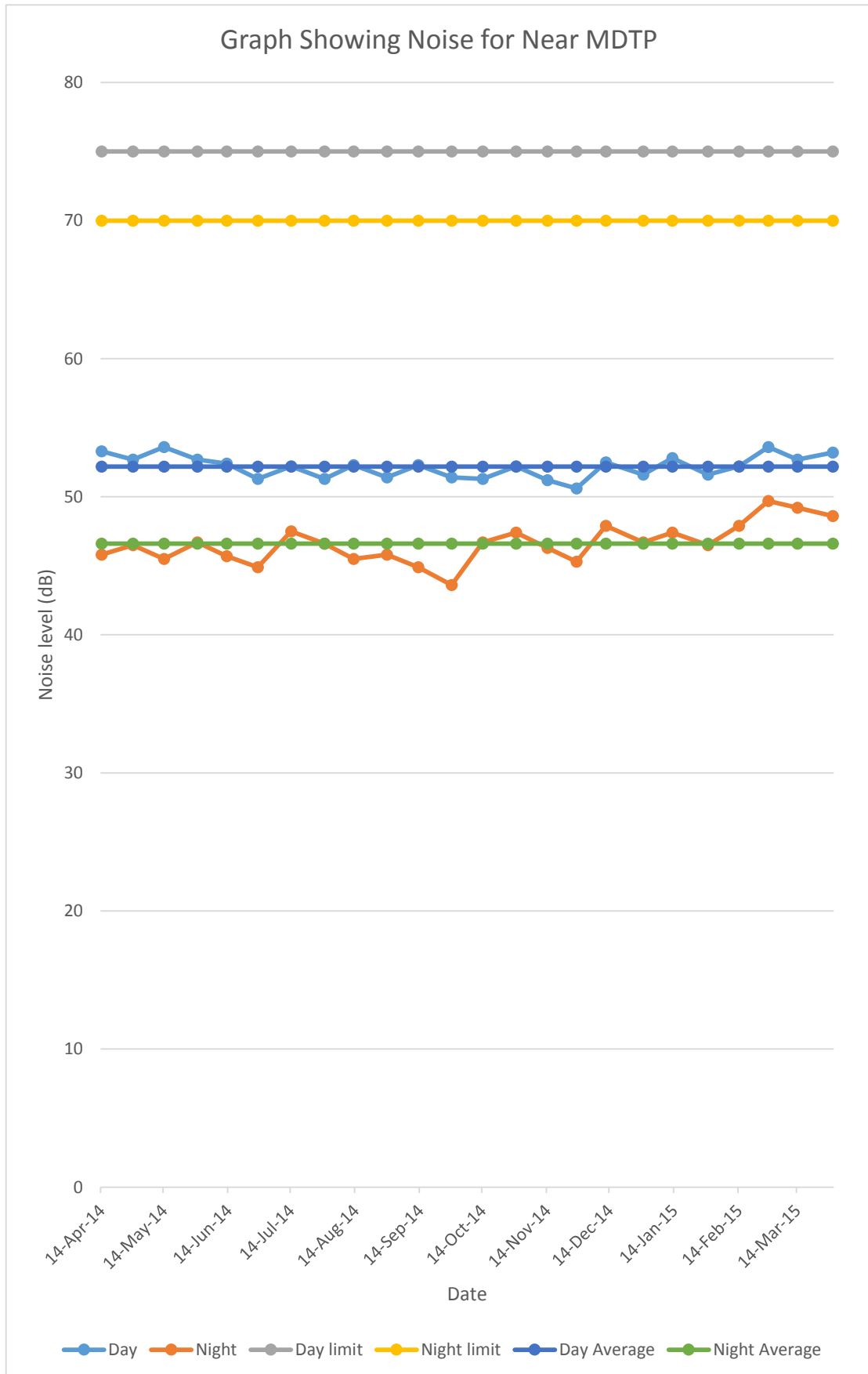
**Table : 72 Noise Level Data**

**Project :Belpahar OCP**

**Monitoring Station : Near MDTP**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	53.3	45.8
29-Apr-14	52.7	46.5
14-May-14	53.6	45.5
30-May-14	52.7	46.7
13-Jun-14	52.4	45.7
28-Jun-14	51.3	44.9
14-Jul-14	52.2	47.5
30-Jul-14	51.3	46.6
13-Aug-14	52.3	45.5
29-Aug-14	51.4	45.8
13-Sep-14	52.3	44.9
29-Sep-14	51.4	43.6
14-Oct-14	51.3	46.7
30-Oct-14	52.2	47.4
14-Nov-14	51.2	46.3
28-Nov-14	50.6	45.3
12-Dec-14	52.5	47.9
30-Dec-14	51.6	46.7
13-Jan-15	52.8	47.4
30-Jan-15	51.6	46.5
14-Feb-15	52.2	47.9
28-Feb-15	53.6	49.7
14-Mar-15	52.7	49.2
31-Mar-15	53.2	48.6
<b>Maximum</b>	<b>53.6</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.6</b>	<b>43.6</b>
<b>Average</b>	<b>52.18</b>	<b>46.61</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



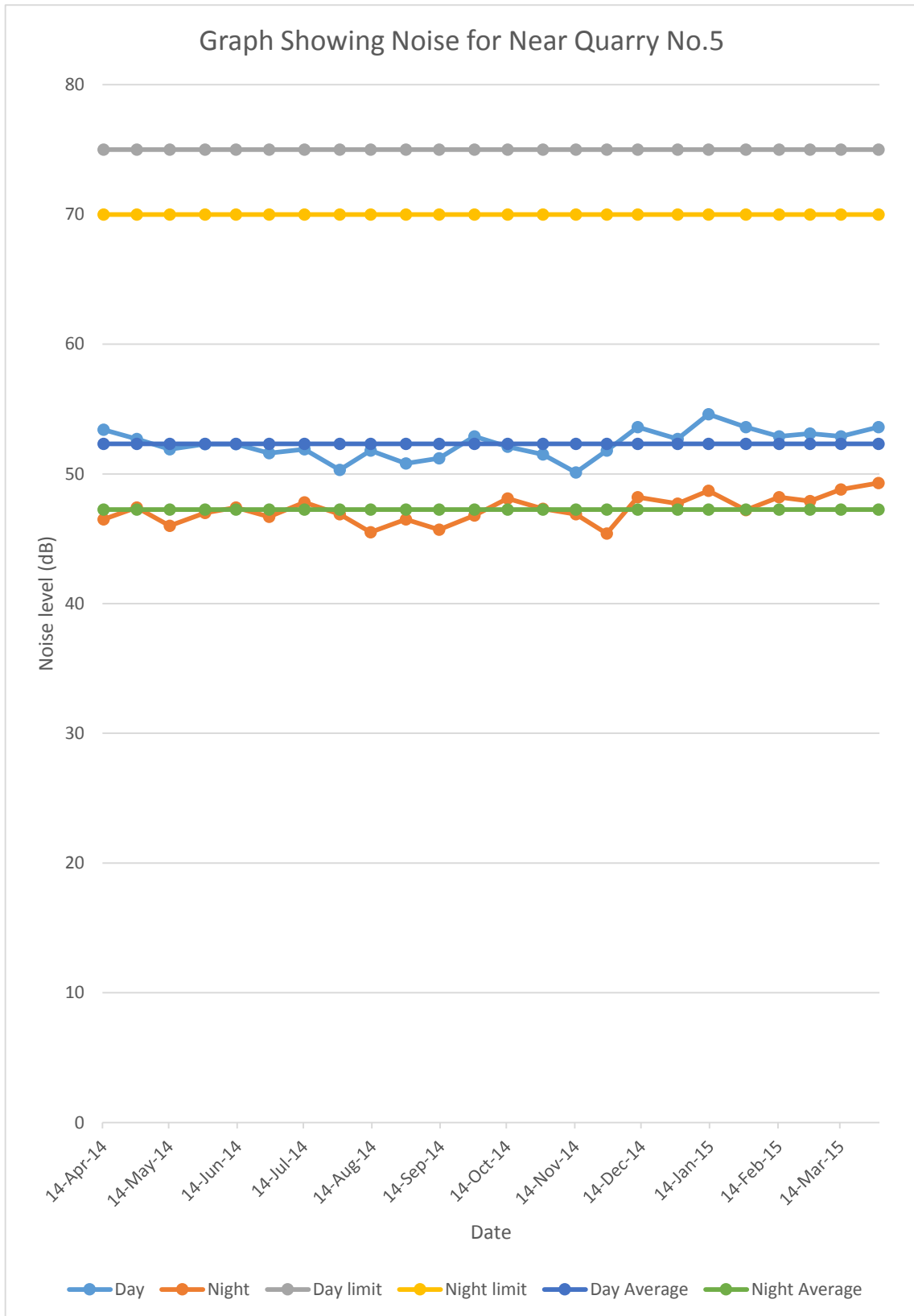
**Table : 73 Noise Level Data**

**Project :Belpahar OCP**

**Monitoring Station : Near Quarry No.5**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	53.4	46.5
29-Apr-14	52.7	47.4
14-May-14	51.9	46
30-May-14	52.3	47
13-Jun-14	52.3	47.4
28-Jun-14	51.6	46.7
14-Jul-14	51.9	47.8
30-Jul-14	50.3	46.9
13-Aug-14	51.8	45.5
29-Aug-14	50.8	46.5
13-Sep-14	51.2	45.7
29-Sep-14	52.9	46.8
14-Oct-14	52.1	48.1
30-Oct-14	51.5	47.3
14-Nov-14	50.1	46.9
28-Nov-14	51.8	45.4
12-Dec-14	53.6	48.2
30-Dec-14	52.7	47.7
13-Jan-15	54.6	48.7
30-Jan-15	53.6	47.2
14-Feb-15	52.9	48.2
28-Feb-15	53.1	47.9
14-Mar-15	52.9	48.8
31-Mar-15	53.6	49.3
<b>Maximum</b>	<b>54.6</b>	<b>49.3</b>
<b>Minimum</b>	<b>50.1</b>	<b>45.4</b>
<b>Average</b>	<b>52.32</b>	<b>47.25</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



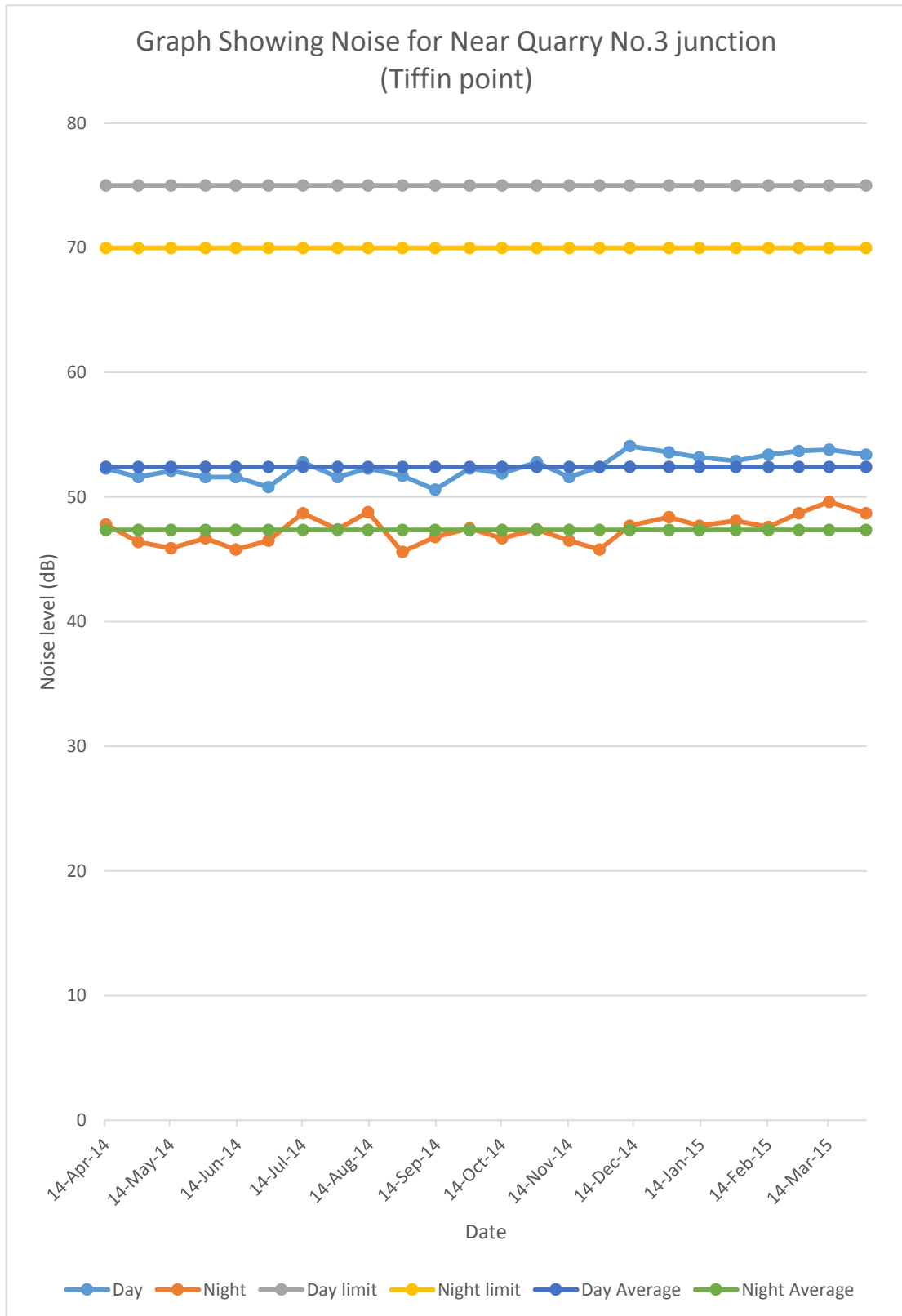
**Table : 74 Noise Level Data**

**Project :Belpahar OCP**

**Monitoring Station : Quarry No.3 junction (Tiffin point)**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	52.3	47.8
29-Apr-14	51.6	46.4
14-May-14	52.1	45.9
30-May-14	51.6	46.7
13-Jun-14	51.6	45.8
28-Jun-14	50.8	46.5
14-Jul-14	52.8	48.7
30-Jul-14	51.6	47.4
13-Aug-14	52.3	48.8
29-Aug-14	51.7	45.6
13-Sep-14	50.6	46.8
29-Sep-14	52.3	47.5
14-Oct-14	51.9	46.7
30-Oct-14	52.8	47.4
14-Nov-14	51.6	46.5
28-Nov-14	52.4	45.8
12-Dec-14	54.1	47.7
30-Dec-14	53.6	48.4
13-Jan-15	53.2	47.7
30-Jan-15	52.9	48.1
14-Feb-15	53.4	47.6
28-Feb-15	53.7	48.7
14-Mar-15	53.8	49.6
31-Mar-15	53.4	48.7
<b>Maximum</b>	<b>54.1</b>	<b>49.6</b>
<b>Minimum</b>	<b>50.6</b>	<b>45.6</b>
<b>Average</b>	<b>52.42</b>	<b>47.37</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



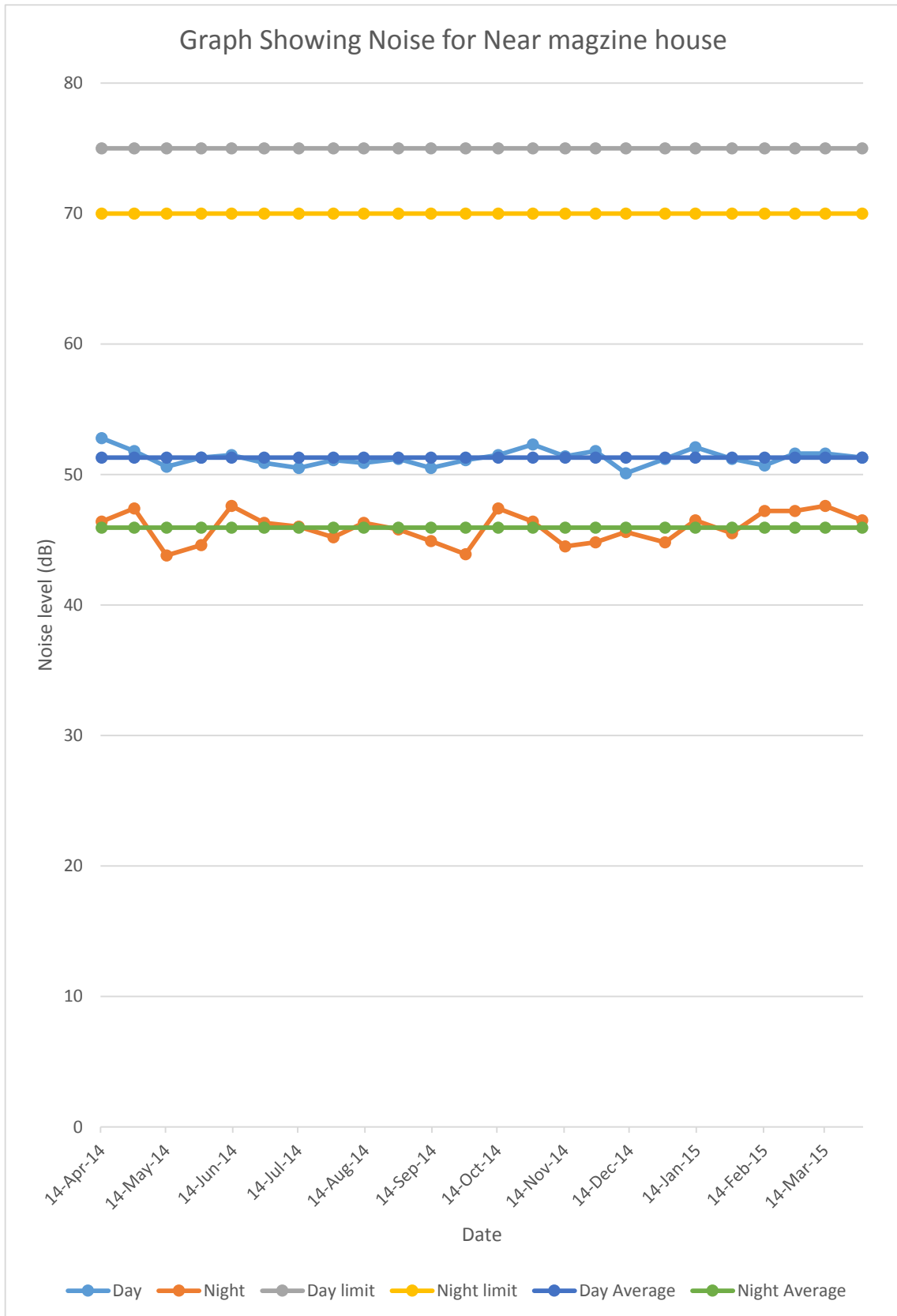
**Table : 75 Noise Level Data**

**Project :Lilari OCP**

**Monitoring Station : Near Magazine House**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	52.8	46.4
29-Apr-14	51.8	47.4
14-May-14	50.6	43.8
30-May-14	51.3	44.6
13-Jun-14	51.5	47.6
28-Jun-14	50.9	46.3
14-Jul-14	50.5	46
30-Jul-14	51.1	45.2
13-Aug-14	50.9	46.3
29-Aug-14	51.2	45.8
13-Sep-14	50.5	44.9
29-Sep-14	51.1	43.9
14-Oct-14	51.5	47.4
30-Oct-14	52.3	46.4
14-Nov-14	51.4	44.5
28-Nov-14	51.8	44.8
12-Dec-14	50.1	45.6
30-Dec-14	51.2	44.8
13-Jan-15	52.1	46.5
30-Jan-15	51.2	45.5
14-Feb-15	50.7	47.2
28-Feb-15	51.6	47.2
14-Mar-15	51.6	47.6
31-Mar-15	51.3	46.5
<b>Maximum</b>	<b>52.8</b>	<b>47.6</b>
<b>Minimum</b>	<b>50.1</b>	<b>43.8</b>
<b>Average</b>	<b>51.29</b>	<b>45.93</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



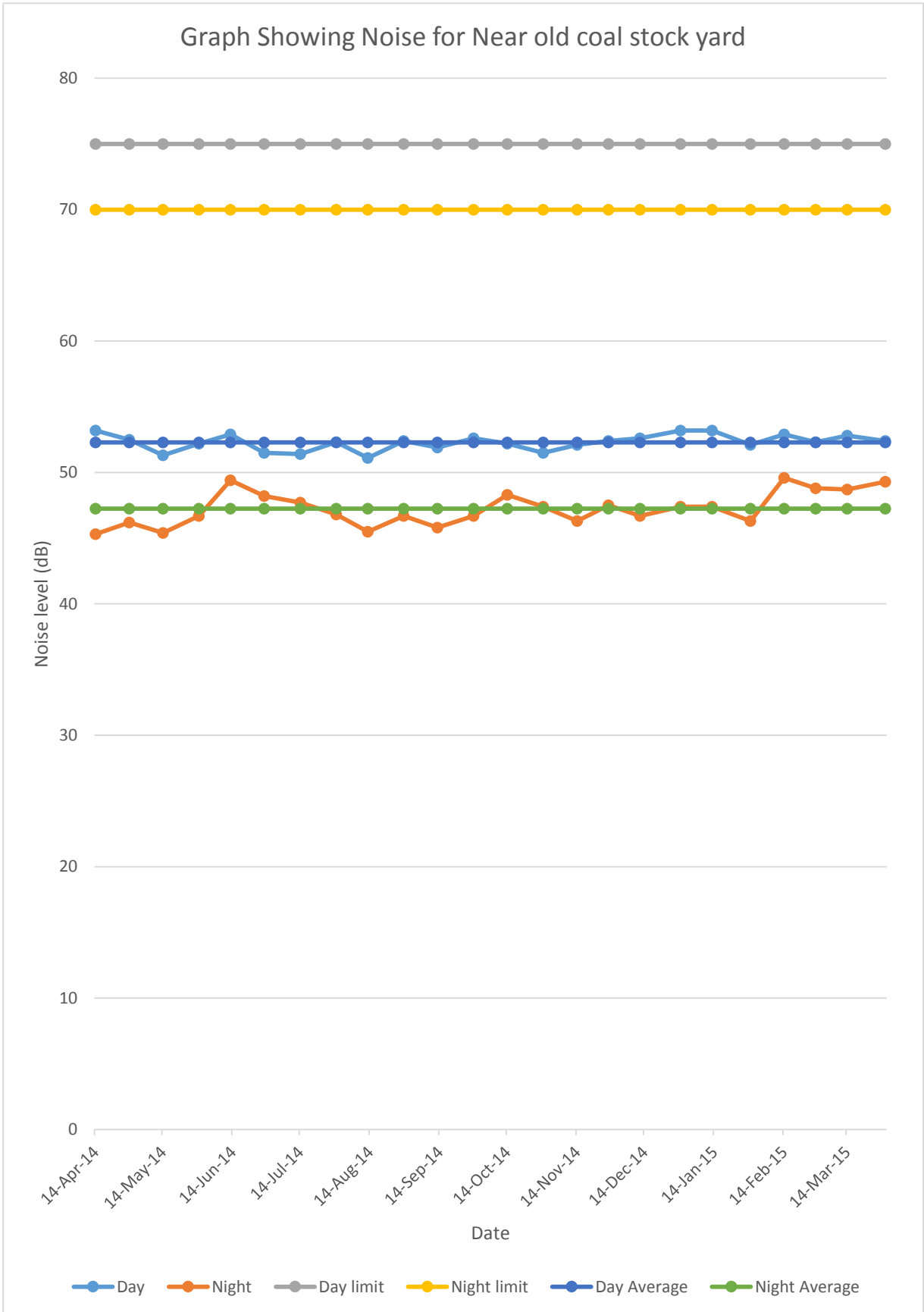
**Table : 76 Noise Level Data**

**Project :Lilari OCP**

**Monitoring Station : Near Old Coal Stock**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	53.2	45.3
29-Apr-14	52.5	46.2
14-May-14	51.3	45.4
30-May-14	52.2	46.7
13-Jun-14	52.9	49.4
28-Jun-14	51.5	48.2
14-Jul-14	51.4	47.7
30-Jul-14	52.3	46.8
13-Aug-14	51.1	45.5
29-Aug-14	52.4	46.7
13-Sep-14	51.9	45.8
29-Sep-14	52.6	46.7
14-Oct-14	52.2	48.3
30-Oct-14	51.5	47.4
14-Nov-14	52.1	46.3
28-Nov-14	52.4	47.5
12-Dec-14	52.6	46.7
30-Dec-14	53.2	47.4
13-Jan-15	53.2	47.4
30-Jan-15	52.1	46.3
14-Feb-15	52.9	49.6
28-Feb-15	52.3	48.8
14-Mar-15	52.8	48.7
31-Mar-15	52.4	49.3
<b>Maximum</b>	<b>53.2</b>	<b>49.6</b>
<b>Minimum</b>	<b>51.1</b>	<b>45.3</b>
<b>Average</b>	<b>52.29</b>	<b>47.25</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



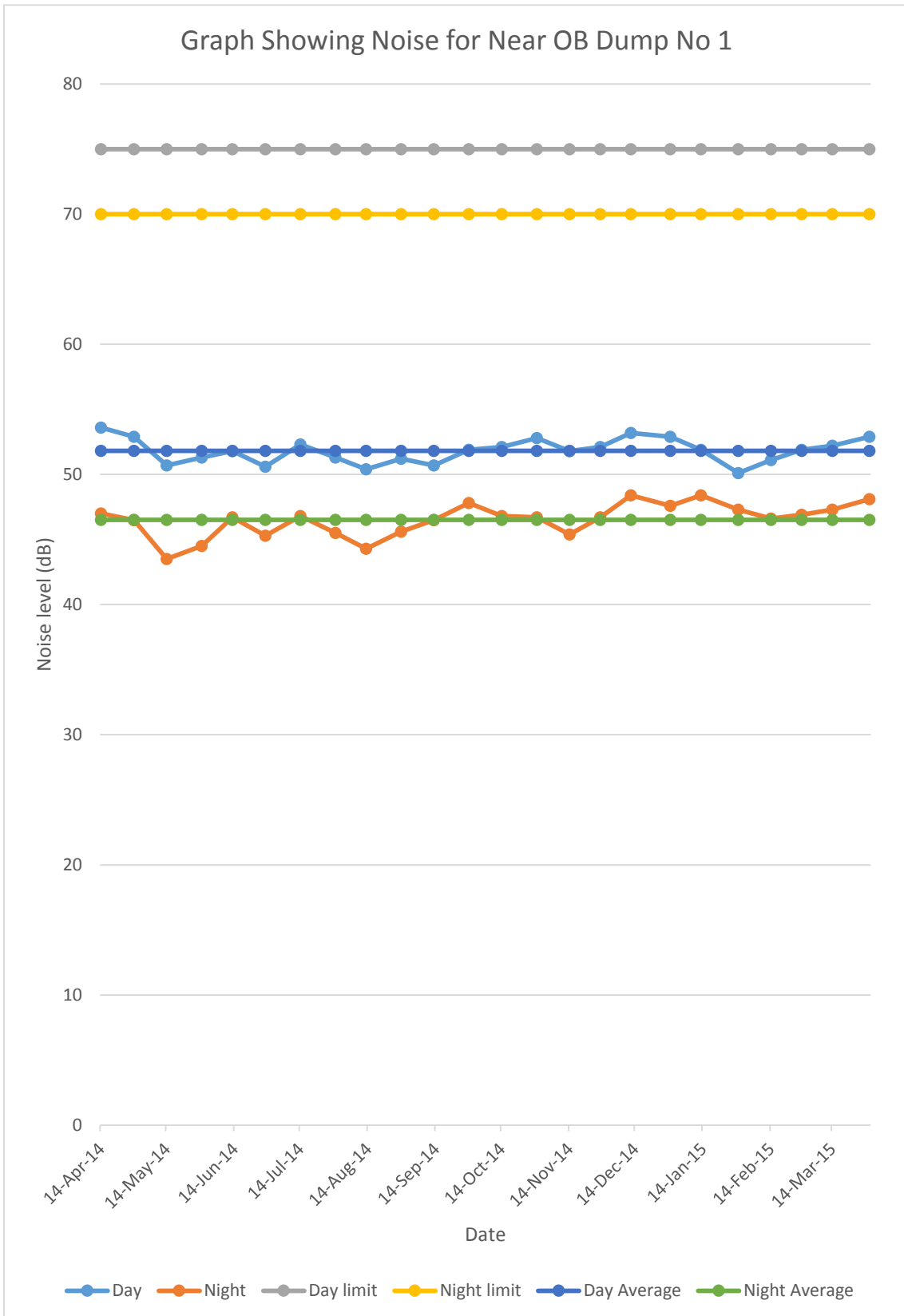
**Table : 77 Noise Level Data**

**Project :Lilari OCP**

**Monitoring Station : Near OB Dump**

<b>Date of sampling</b>	<b>Day</b>	<b>`Night</b>
14-Apr-14	53.6	47
29-Apr-14	52.9	46.5
14-May-14	50.7	43.5
30-May-14	51.3	44.5
13-Jun-14	51.8	46.7
28-Jun-14	50.6	45.3
14-Jul-14	52.3	46.8
30-Jul-14	51.3	45.5
13-Aug-14	50.4	44.3
29-Aug-14	51.2	45.6
13-Sep-14	50.7	46.5
29-Sep-14	51.9	47.8
14-Oct-14	52.1	46.8
30-Oct-14	52.8	46.7
14-Nov-14	51.8	45.4
28-Nov-14	52.1	46.7
12-Dec-14	53.2	48.4
30-Dec-14	52.9	47.6
13-Jan-15	51.9	48.4
30-Jan-15	50.1	47.3
14-Feb-15	51.1	46.6
28-Feb-15	51.9	46.9
14-Mar-15	52.2	47.3
31-Mar-15	52.9	48.1
<b>Maximum</b>	<b>53.6</b>	<b>48.4</b>
<b>Minimum</b>	<b>50.1</b>	<b>43.5</b>
<b>Average</b>	<b>51.82</b>	<b>46.51</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



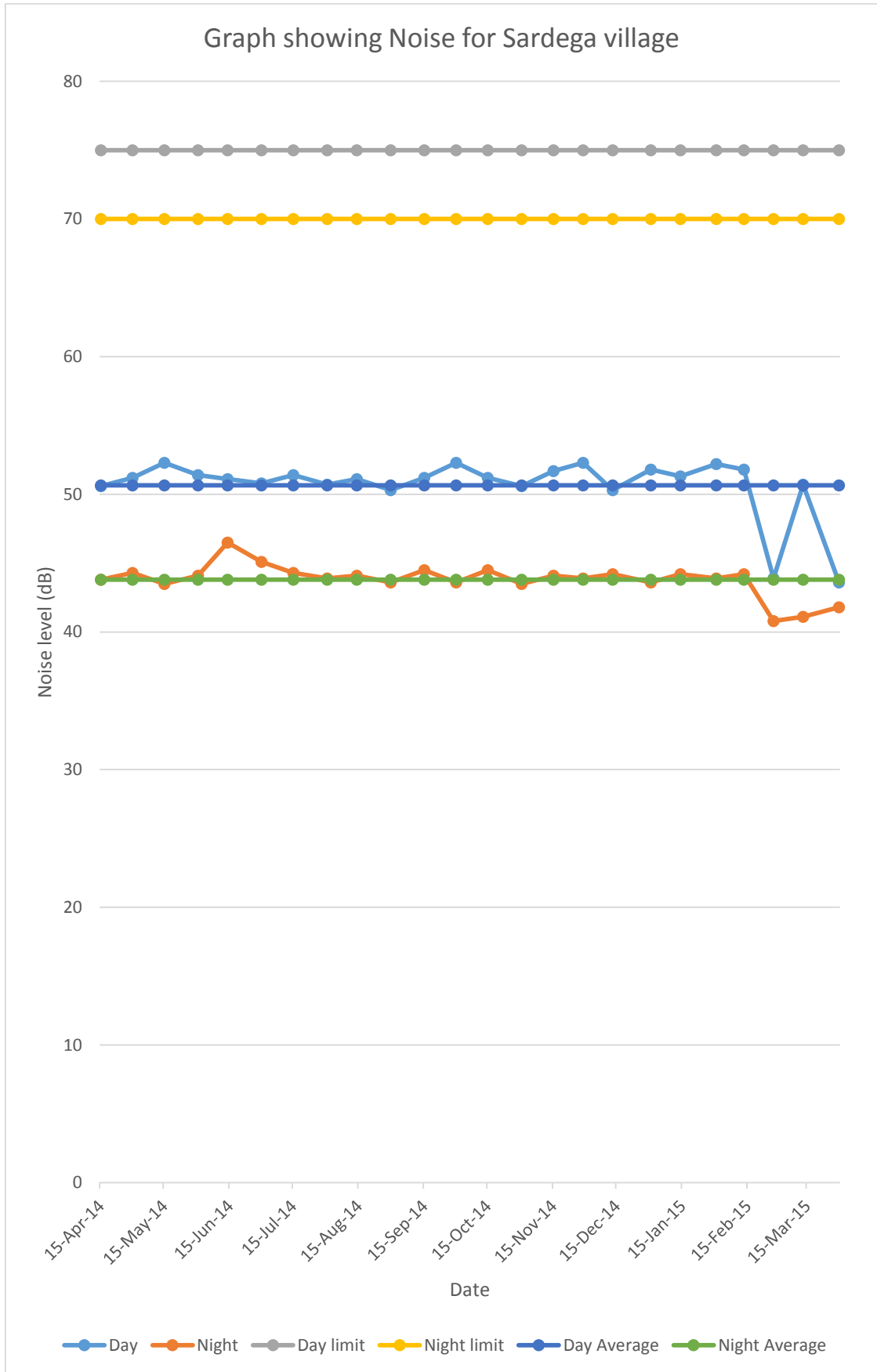
**Table : 78 Noise Level Data**

**Project: Basundhara OCP**

**Monitoring Station : Sardega Village**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
15-Jul-14	51.4	44.3
31-Jul-14	50.7	43.9
14-Aug-14	51.1	44.1
30-Aug-14	50.3	43.6
15-Sep-14	51.2	44.5
30-Sep-14	52.3	43.6
15-Oct-14	51.2	44.5
31-Oct-14	50.6	43.5
15-Nov-14	51.7	44.1
29-Nov-14	52.3	43.9
13-Dec-14	50.3	44.2
31-Dec-14	51.8	43.6
14-Jan-15	51.3	44.2
31-Jan-15	52.2	43.9
13-Feb-15	51.8	44.2
27-Feb-15	43.9	40.8
13-Mar-15	50.7	41.1
30-Mar-15	43.6	41.8
<b>Brief Statistic</b>	<b>DAY</b>	<b>NIGHT</b>
<b>Maximum</b>	52.3	44.5
<b>Minimum</b>	43.6	40.8
<b>Mean</b>	50.46	43.54
<b>Noise Standards</b>	75	70

*All values are in dB(A)*



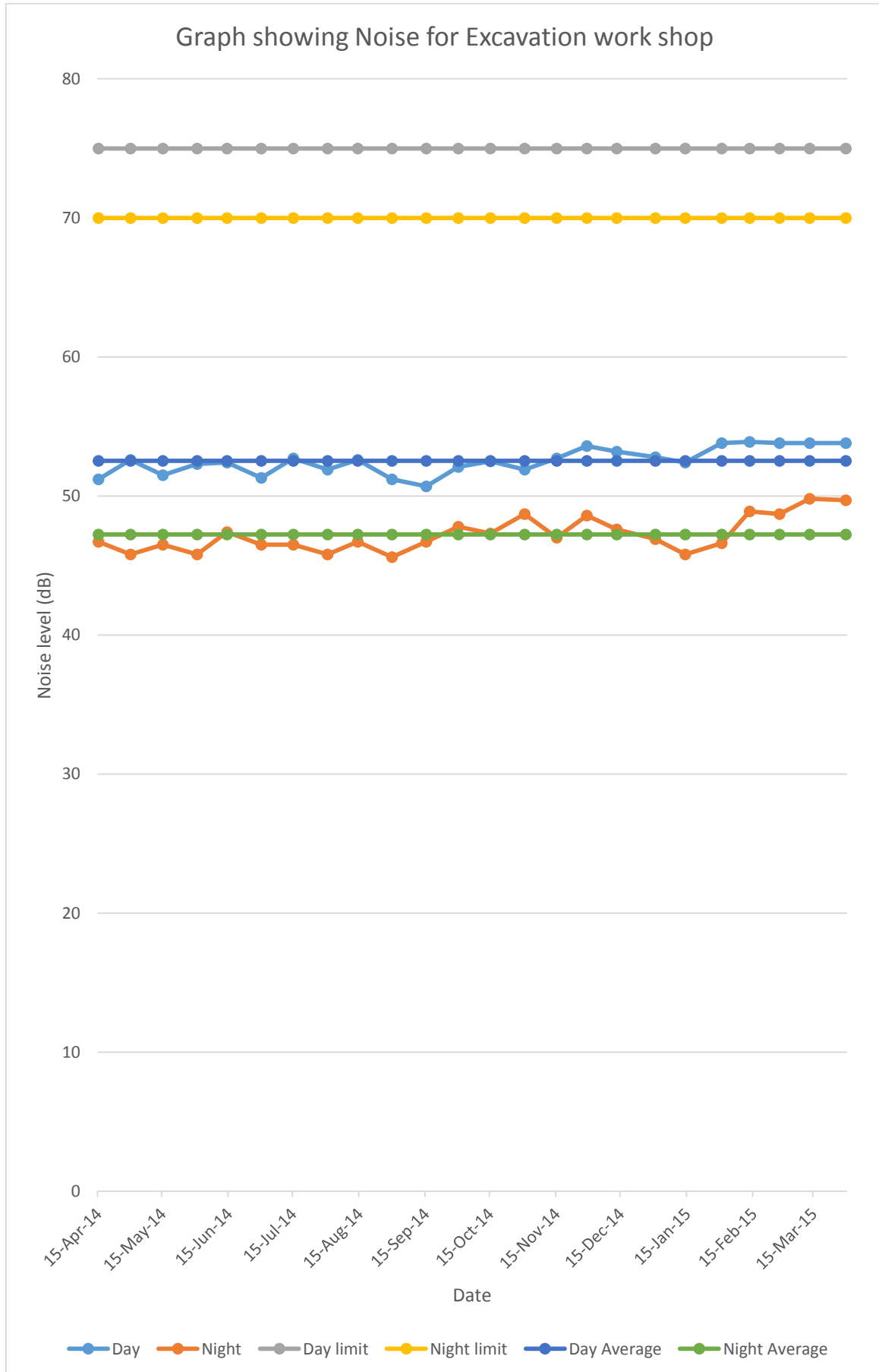
**Table : 79 Noise Level Data**

**Project: Basundhara OCP**

**Monitoring Station: Excavation Workshop**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
15-Apr-14	51.2	46.7
30-Apr-14	52.6	45.8
15-May-14	51.5	46.5
31-May-14	52.3	45.8
14-Jun-14	52.4	47.4
30-Jun-14	51.3	46.5
15-Jul-14	52.7	46.5
31-Jul-14	51.9	45.8
14-Aug-14	52.6	46.7
30-Aug-14	51.2	45.6
15-Sep-14	50.7	46.7
30-Sep-14	52.1	47.8
15-Oct-14	52.5	47.3
31-Oct-14	51.9	48.7
15-Nov-14	52.7	47
29-Nov-14	53.6	48.6
13-Dec-14	53.2	47.6
31-Dec-14	52.8	46.9
14-Jan-15	52.4	45.8
31-Jan-15	53.8	46.6
13-Feb-15	53.9	48.9
27-Feb-15	53.8	48.7
13-Mar-15	53.8	49.8
30-Mar-15	53.8	49.7
<b>Brief Statistic</b>	<b>DAY</b>	<b>NIGHT</b>
<b>Maximum</b>	53.90	49.80
<b>Minimum</b>	50.70	45.60
<b>Mean</b>	52.53	47.23
<b>Noise Standards</b>	75	70

*All values are in dB(A)*



**Table : 80 Noise Level Data**

**Project: Basundhara OCP**

**Monitoring Station: Kulapara Hamlet of Gopalpur Village**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
15-Apr-14	50.6	43.8
30-Apr-14	51.2	44.3
15-May-14	52.3	43.5
31-May-14	51.4	44.1
14-Jun-14	51.1	46.5
30-Jun-14	50.8	45.1
<b>Brief Statistic</b>	<b>DAY</b>	<b>NIGHT</b>
<b>Maximum</b>	52.3	46.5
<b>Minimum</b>	50.6	43.5
<b>Mean</b>	51.23	44.55
<b>Noise Standards</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*

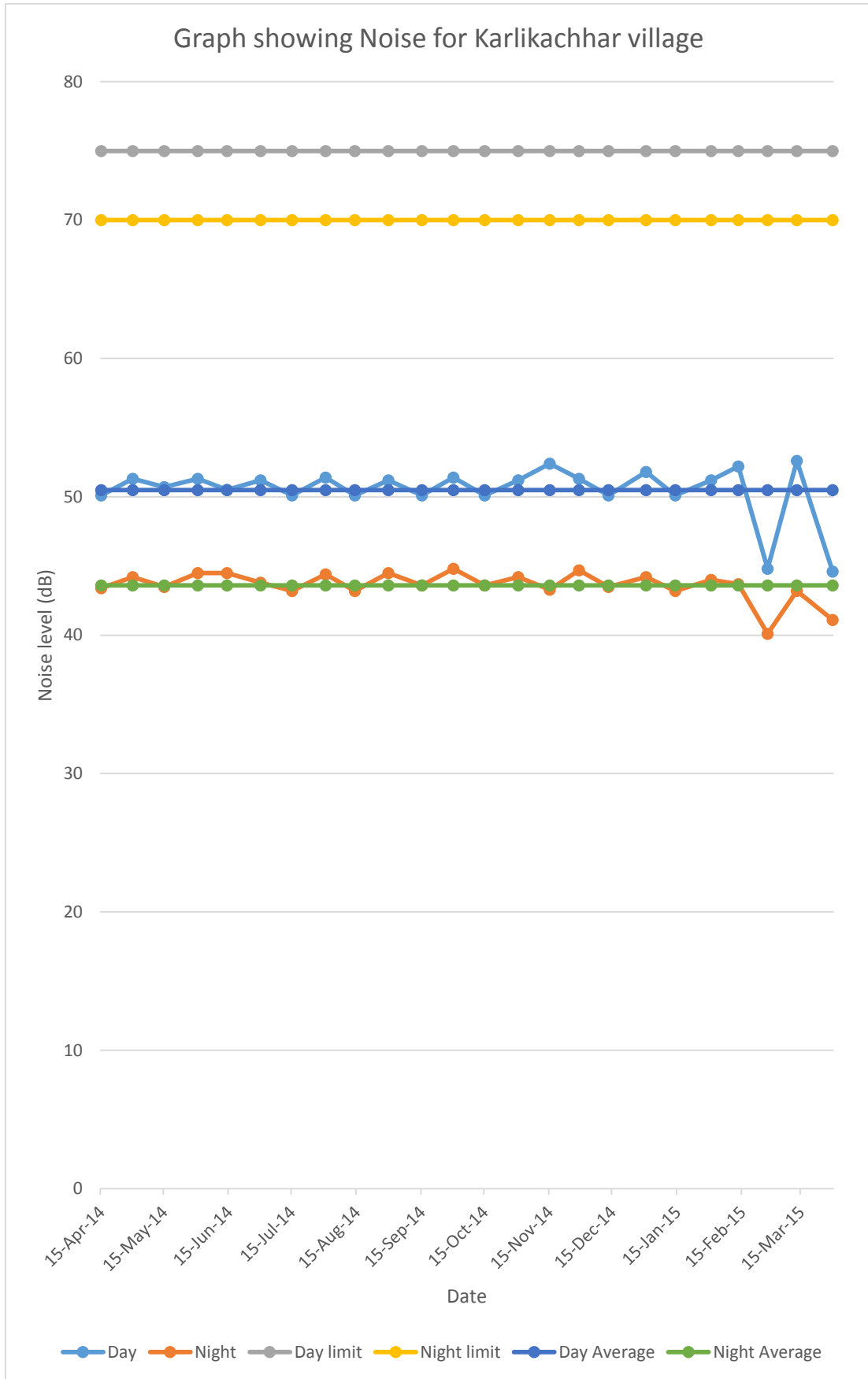
**Table : 81 Noise Level Data**

**Project: Kulda OCP**

**Monitoring Station: Karlikachhar Village**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
15-Apr-14	50.1	43.4
30-Apr-14	51.3	44.2
15-May-14	50.7	43.5
31-May-14	51.3	44.5
14-Jun-14	50.5	44.5
30-Jun-14	51.2	43.8
15-Jul-14	50.1	43.2
31-Jul-14	51.4	44.4
14-Aug-14	50.1	43.2
30-Aug-14	51.2	44.5
15-Sep-14	50.1	43.6
30-Sep-14	51.4	44.8
15-Oct-14	50.1	43.6
31-Oct-14	51.2	44.2
15-Nov-14	52.4	43.3
29-Nov-14	51.3	44.7
13-Dec-14	50.1	43.5
31-Dec-14	51.8	44.2
14-Jan-15	50.1	43.2
31-Jan-15	51.2	44
13-Feb-15	52.2	43.7
27-Feb-15	44.8	40.1
13-Mar-15	52.6	43.2
30-Mar-15	44.6	41.1
<b>Brief Statistic</b>	<b>DAY</b>	<b>NIGHT</b>
Maximum	52.60	44.80
Minimum	44.60	40.10
Mean	50.49	43.60
Noise Standards	75	70

*All values are in dB(A)*



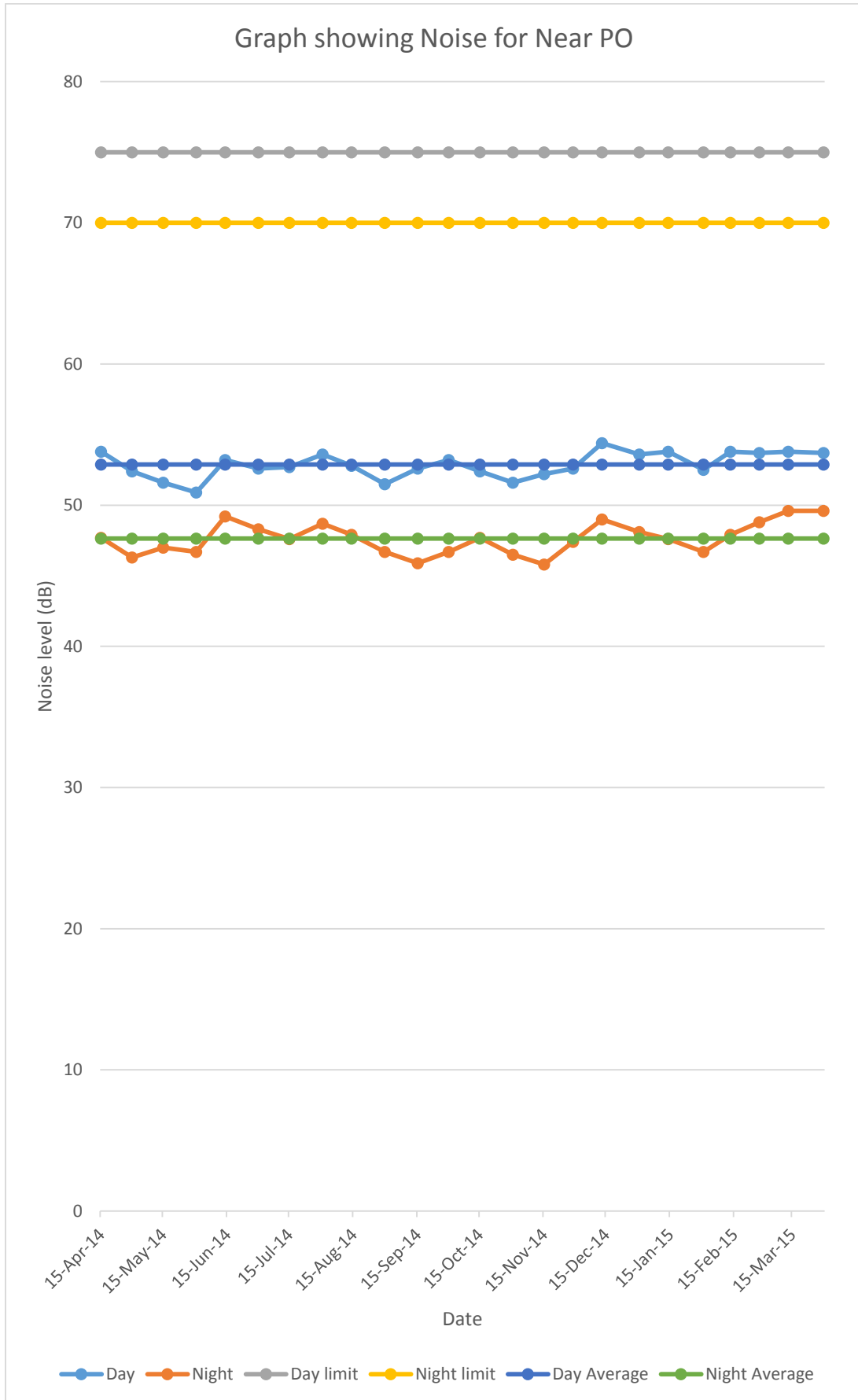
### Table : 82 Noise Data

#### Project: Kulda OCP

#### Monitoring Station: Near Project office

DATE OF SAMPLING	DAY	NIGHT
15-Apr-14	53.8	47.7
30-Apr-14	52.4	46.3
15-May-14	51.6	47
31-May-14	50.9	46.7
14-Jun-14	53.2	49.2
30-Jun-14	52.6	48.3
15-Jul-14	52.7	47.6
31-Jul-14	53.6	48.7
14-Aug-14	52.8	47.9
30-Aug-14	51.5	46.7
15-Sep-14	52.6	45.9
30-Sep-14	53.2	46.7
15-Oct-14	52.4	47.7
31-Oct-14	51.6	46.5
15-Nov-14	52.2	45.8
29-Nov-14	52.6	47.4
13-Dec-14	54.4	49
31-Dec-14	53.6	48.1
14-Jan-15	53.8	47.6
31-Jan-15	52.5	46.7
13-Feb-15	53.8	47.9
27-Feb-15	53.7	48.8
13-Mar-15	53.8	49.6
30-Mar-15	53.7	49.6
<b>Brief Statistic</b>	<b>DAY</b>	<b>NIGHT</b>
<b>Maximum</b>	54.4	49.6
<b>Minimum</b>	50.9	45.8
<b>Mean</b>	52.87	47.64
<b>Noise Standards</b>	75	70

*All values are in dB(A)*



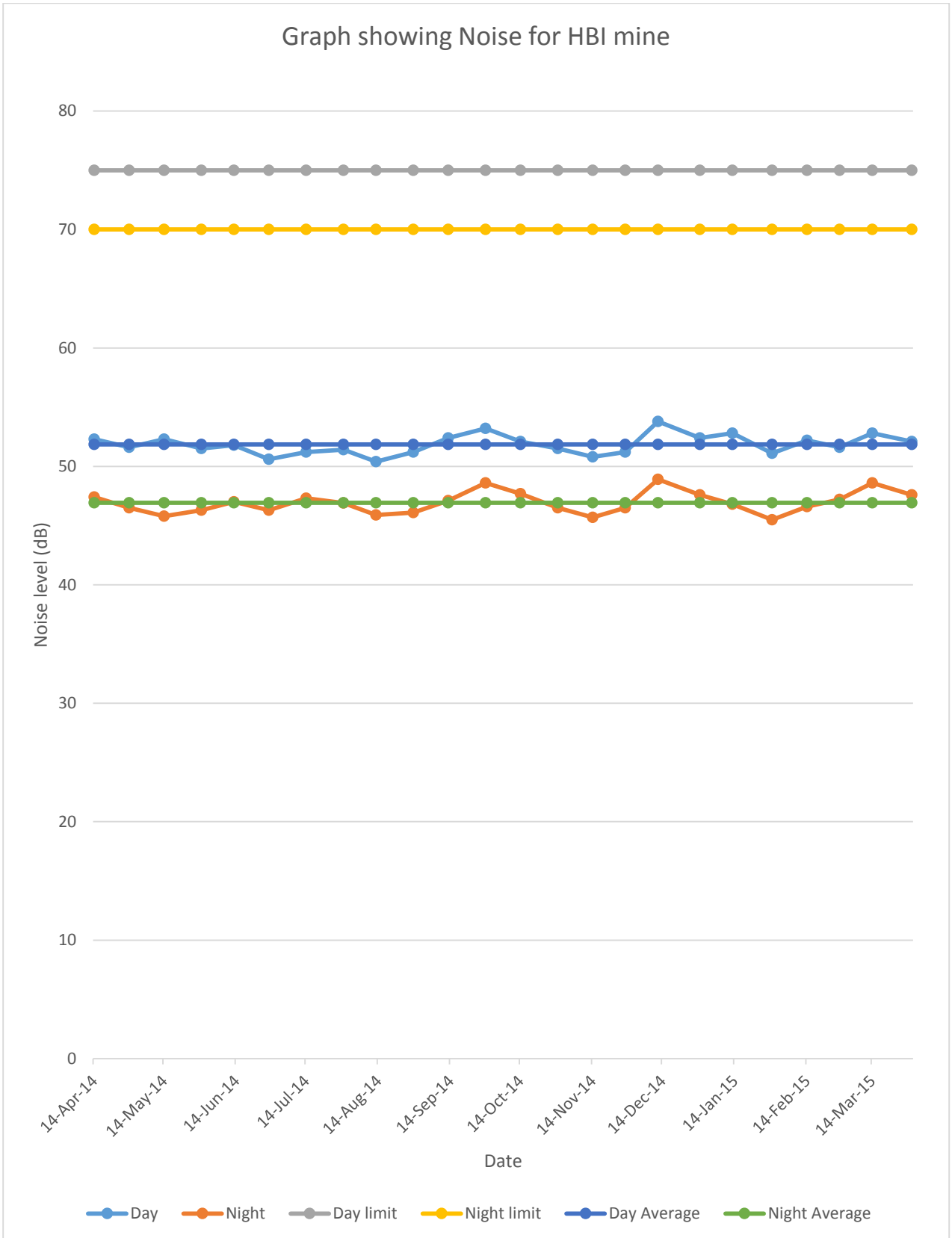
**Table : 83 Noise Level Data**

**Project : Orient U/G**

**Monitoring Station :HBI Mine**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	52.3	47.4
29-Apr-14	51.6	46.5
14-May-14	52.3	45.8
30-May-14	51.5	46.3
13-Jun-14	51.8	47
28-Jun-14	50.6	46.3
14-Jul-14	51.2	47.3
30-Jul-14	51.4	46.9
13-Aug-14	50.4	45.9
29-Aug-14	51.2	46.1
13-Sep-14	52.4	47.1
29-Sep-14	53.2	48.6
14-Oct-14	52.1	47.7
30-Oct-14	51.5	46.5
14-Nov-14	50.8	45.7
28-Nov-14	51.2	46.5
12-Dec-14	53.8	48.9
30-Dec-14	52.4	47.6
13-Jan-15	52.8	46.8
30-Jan-15	51.1	45.5
14-Feb-15	52.2	46.6
28-Feb-15	51.6	47.2
14-Mar-15	52.8	48.6
31-Mar-15	52.1	47.6
<b>Maximum</b>	<b>53.8</b>	<b>48.9</b>
<b>Minimum</b>	<b>50.4</b>	<b>45.5</b>
<b>Mean</b>	<b>51.85</b>	<b>46.93</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



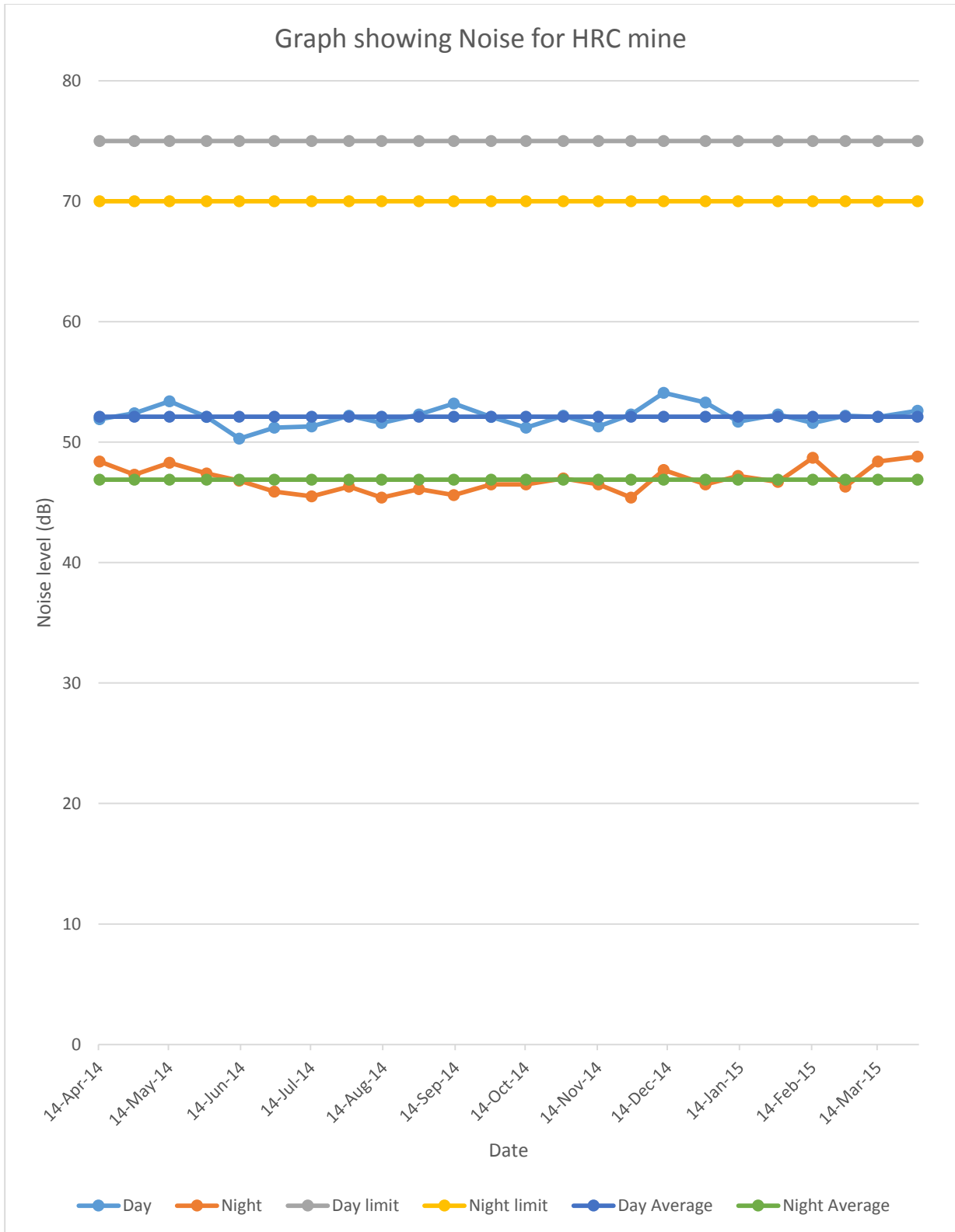
**Table : 84 Noise Level Data**

**Project : Orient U/G**

**Monitoring Station :HRC Mine**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	51.9	48.4
29-Apr-14	52.4	47.3
14-May-14	53.4	48.3
30-May-14	52.1	47.4
13-Jun-14	50.3	46.8
28-Jun-14	51.2	45.9
14-Jul-14	51.3	45.5
30-Jul-14	52.2	46.3
13-Aug-14	51.6	45.4
29-Aug-14	52.3	46.1
13-Sep-14	53.2	45.6
29-Sep-14	52.1	46.5
14-Oct-14	51.2	46.5
30-Oct-14	52.2	47
14-Nov-14	51.3	46.5
28-Nov-14	52.3	45.4
12-Dec-14	54.1	47.7
30-Dec-14	53.3	46.5
13-Jan-15	51.7	47.2
30-Jan-15	52.3	46.7
14-Feb-15	51.6	48.7
28-Feb-15	52.2	46.3
14-Mar-15	52.1	48.4
31-Mar-15	52.6	48.8
<b>Maximum</b>	<b>54.1</b>	<b>48.8</b>
<b>Minimum</b>	<b>50.3</b>	<b>45.4</b>
<b>Mean</b>	<b>52.12</b>	<b>46.88</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



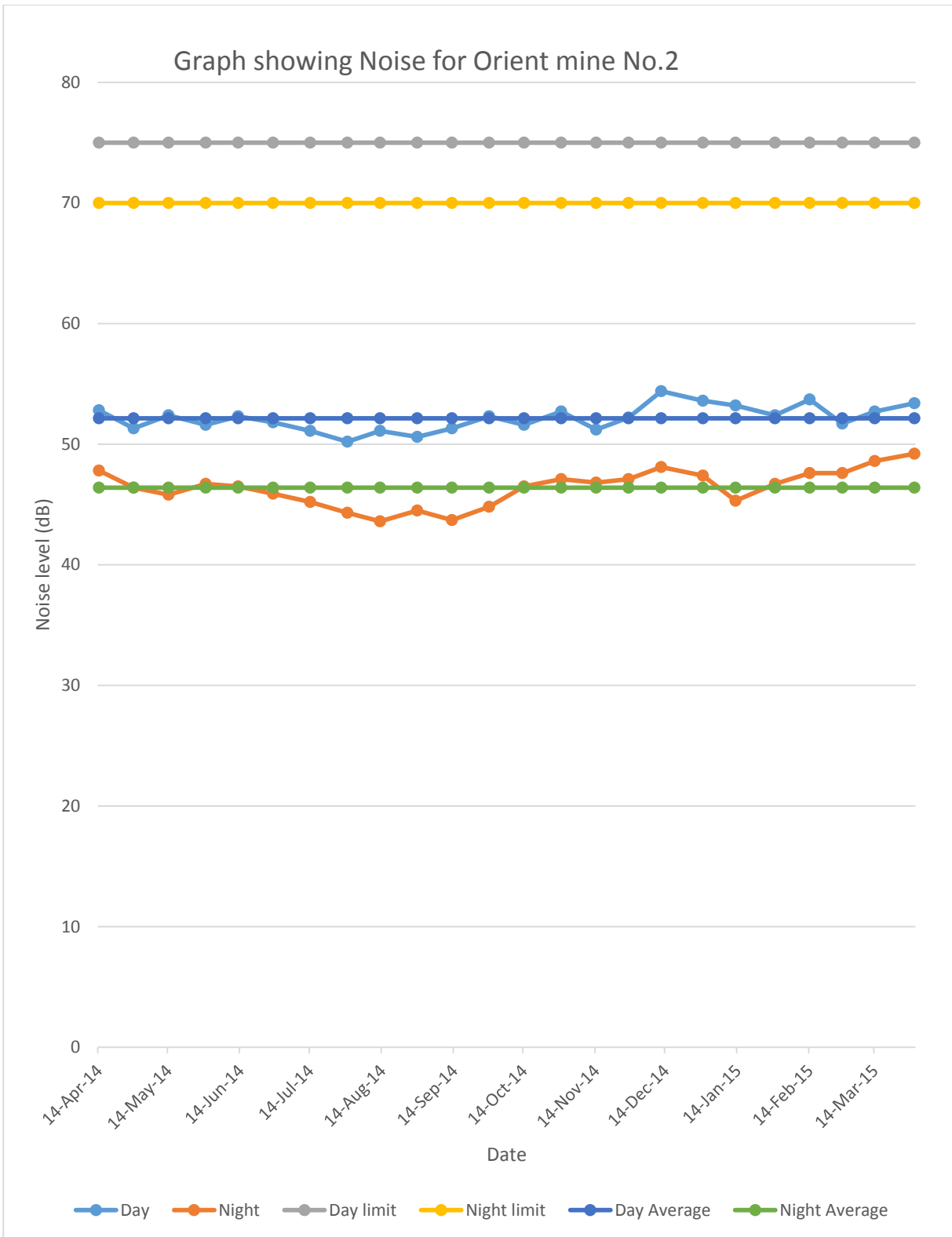
**Table : 85 Noise Level Data**

**Project : Orient U/G**

**Monitoring Station :Orient Mine No.2**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	52.8	47.8
29-Apr-14	51.3	46.4
14-May-14	52.4	45.8
30-May-14	51.6	46.7
13-Jun-14	52.3	46.5
28-Jun-14	51.8	45.9
14-Jul-14	51.1	45.2
30-Jul-14	50.2	44.3
13-Aug-14	51.1	43.6
29-Aug-14	50.6	44.5
13-Sep-14	51.3	43.7
29-Sep-14	52.3	44.8
14-Oct-14	51.6	46.5
30-Oct-14	52.7	47.1
14-Nov-14	51.2	46.8
28-Nov-14	52.2	47.1
12-Dec-14	54.4	48.1
30-Dec-14	53.6	47.4
13-Jan-15	53.2	45.3
30-Jan-15	52.4	46.7
14-Feb-15	53.7	47.6
28-Feb-15	51.7	47.6
14-Mar-15	52.7	48.6
31-Mar-15	53.4	49.2
<b>Maximum</b>	<b>54.4</b>	<b>49.2</b>
<b>Minimum</b>	<b>50.2</b>	<b>43.6</b>
<b>Mean</b>	<b>52.15</b>	<b>46.38</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



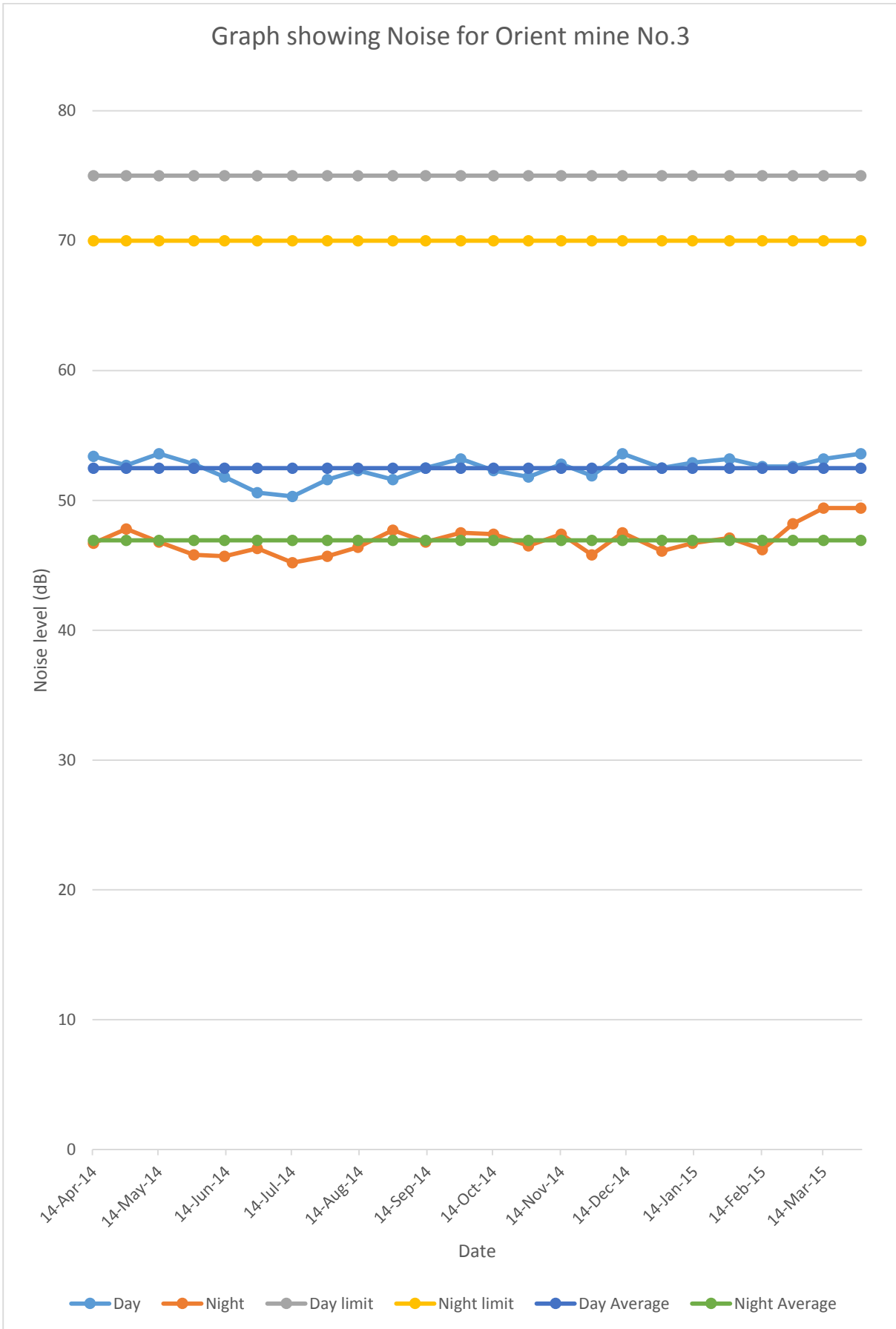
**Table : 86 Noise Level Data**

**Project : Orient U/G**

**Monitoring Station :Orient Mine No.3**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	53.4	46.7
29-Apr-14	52.7	47.8
14-May-14	53.6	46.8
30-May-14	52.8	45.8
13-Jun-14	51.8	45.7
28-Jun-14	50.6	46.3
14-Jul-14	50.3	45.2
30-Jul-14	51.6	45.7
13-Aug-14	52.3	46.4
29-Aug-14	51.6	47.7
13-Sep-14	52.5	46.8
29-Sep-14	53.2	47.5
14-Oct-14	52.3	47.4
30-Oct-14	51.8	46.5
14-Nov-14	52.8	47.4
28-Nov-14	51.9	45.8
12-Dec-14	53.6	47.5
30-Dec-14	52.5	46.1
13-Jan-15	52.9	46.7
30-Jan-15	53.2	47.1
14-Feb-15	52.6	46.2
28-Feb-15	52.6	48.2
14-Mar-15	53.2	49.4
31-Mar-15	53.6	49.4
<b>Maximum</b>	<b>53.60</b>	<b>49.40</b>
<b>Minimum</b>	<b>50.30</b>	<b>45.20</b>
<b>Mean</b>	<b>52.48</b>	<b>46.92</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



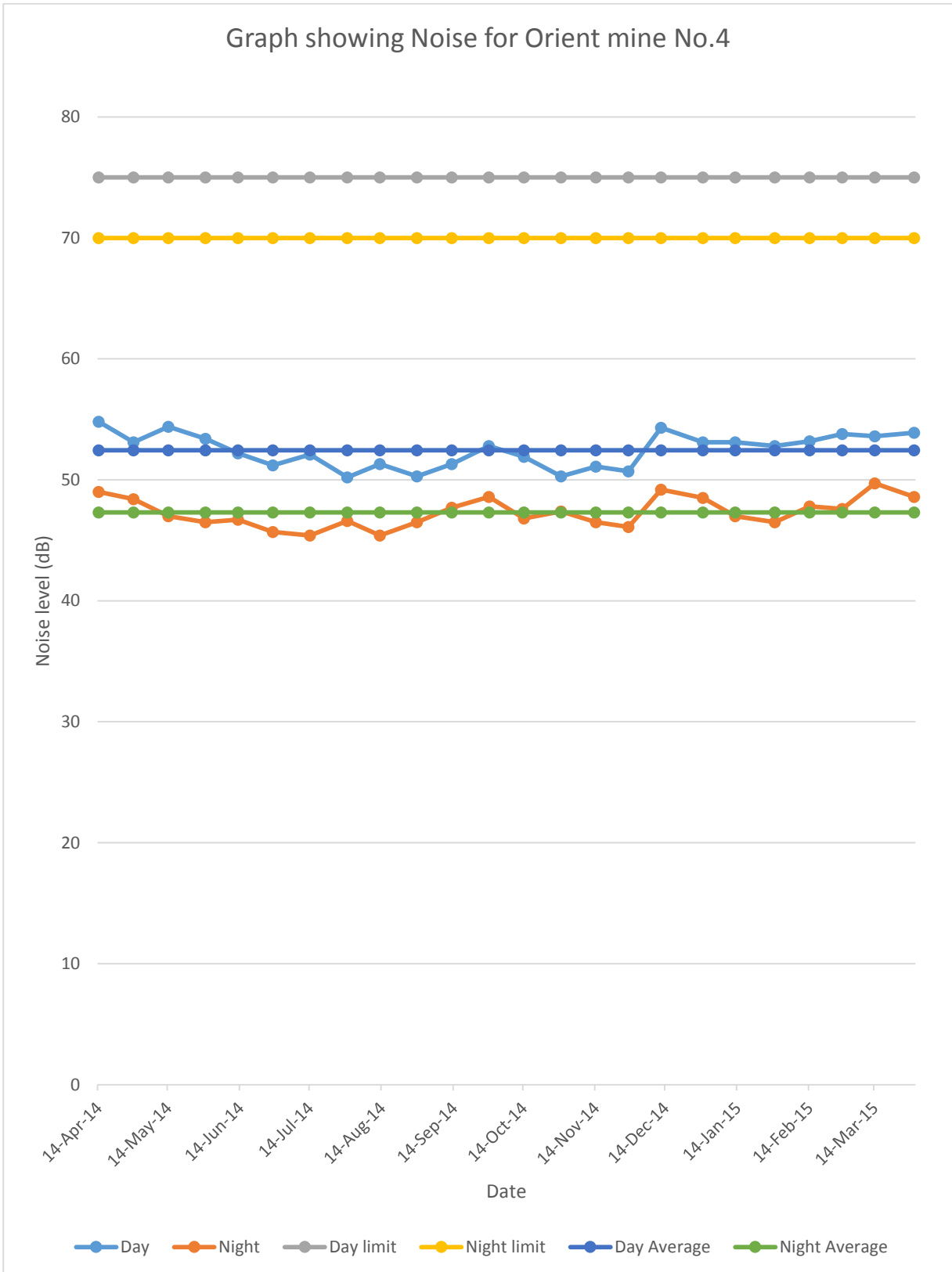
**Table : 87 Noise Level Data**

**Project : Orient U/G**

**Monitoring Station :Orient Mine No.4**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	53.4	46.7
29-Apr-14	52.7	47.8
14-May-14	53.6	46.8
30-May-14	52.8	45.8
13-Jun-14	51.8	45.7
28-Jun-14	50.6	46.3
14-Jul-14	50.3	45.2
30-Jul-14	51.6	45.7
13-Aug-14	52.3	46.4
29-Aug-14	51.6	47.7
13-Sep-14	52.5	46.8
29-Sep-14	53.2	47.5
14-Oct-14	52.3	47.4
30-Oct-14	51.8	46.5
14-Nov-14	52.8	47.4
28-Nov-14	51.9	45.8
12-Dec-14	53.6	47.5
30-Dec-14	52.5	46.1
13-Jan-15	52.9	46.7
30-Jan-15	53.2	47.1
14-Feb-15	52.6	46.2
28-Feb-15	52.6	48.2
14-Mar-15	53.2	49.4
31-Mar-15	53.6	49.4
<b>Maximum</b>	<b>53.6</b>	<b>49.4</b>
<b>Minimum</b>	<b>50.3</b>	<b>45.2</b>
<b>Mean</b>	<b>52.48</b>	<b>46.92</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

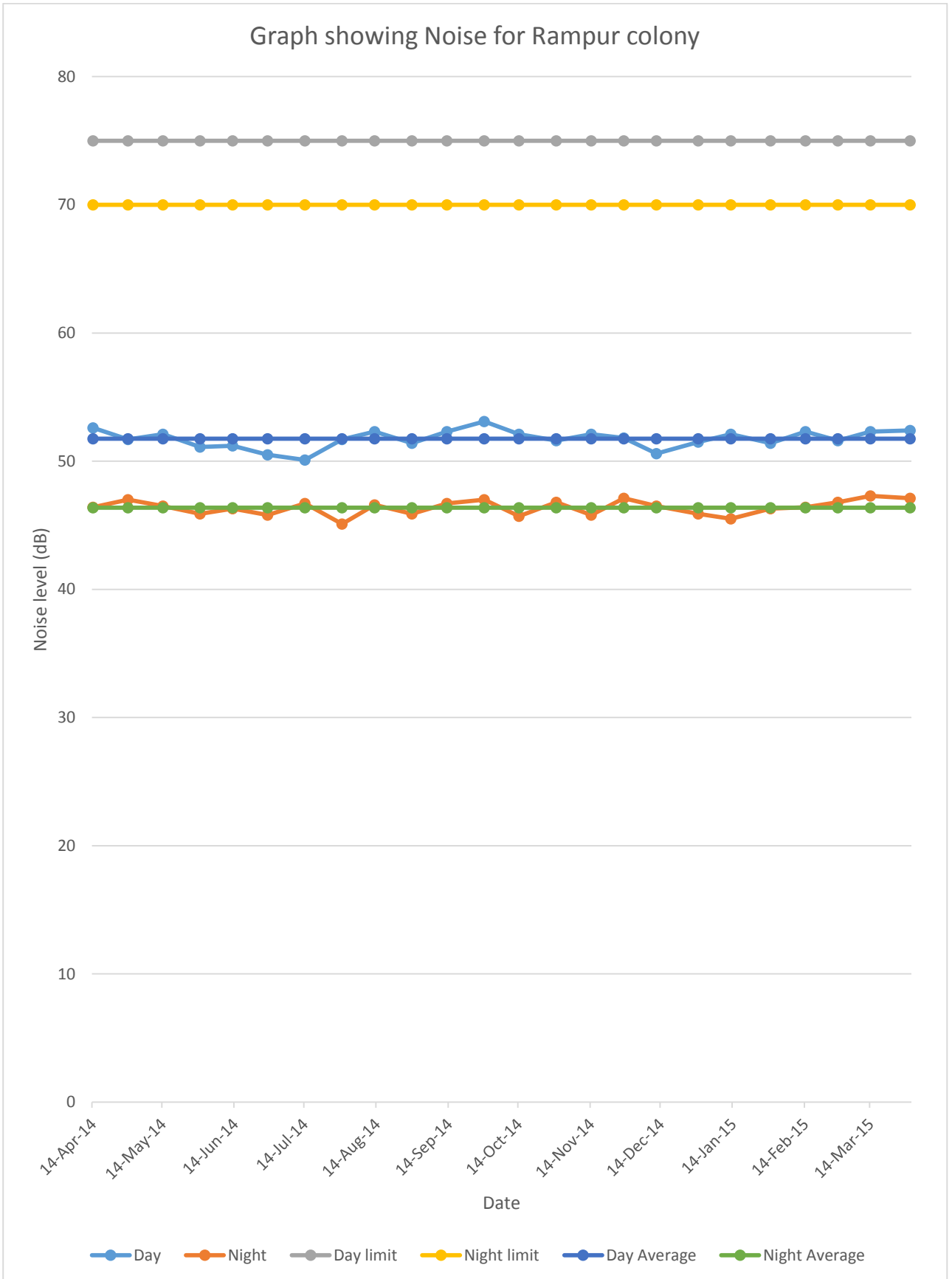
*All values are in dB(A)*



**Table : 88 Noise Level Data**
**Project : Orient U/G**
**Monitoring Station :Rampur Colony**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	52.6	46.4
29-Apr-14	51.7	47
14-May-14	52.1	46.5
30-May-14	51.1	45.9
13-Jun-14	51.2	46.3
28-Jun-14	50.5	45.8
14-Jul-14	50.1	46.7
30-Jul-14	51.7	45.1
13-Aug-14	52.3	46.6
29-Aug-14	51.4	45.9
13-Sep-14	52.3	46.7
29-Sep-14	53.1	47
14-Oct-14	52.1	45.7
30-Oct-14	51.6	46.8
14-Nov-14	52.1	45.8
28-Nov-14	51.8	47.1
12-Dec-14	50.6	46.5
30-Dec-14	51.5	45.9
13-Jan-15	52.1	45.5
30-Jan-15	51.4	46.3
14-Feb-15	52.3	46.4
28-Feb-15	51.6	46.8
14-Mar-15	52.3	47.3
31-Mar-15	52.4	47.1
<b>Maximum</b>	<b>53.1</b>	<b>47.3</b>
<b>Minimum</b>	<b>50.1</b>	<b>45.1</b>
<b>Mean</b>	<b>51.75</b>	<b>46.38</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*



**Table : 89 Noise Level Data**

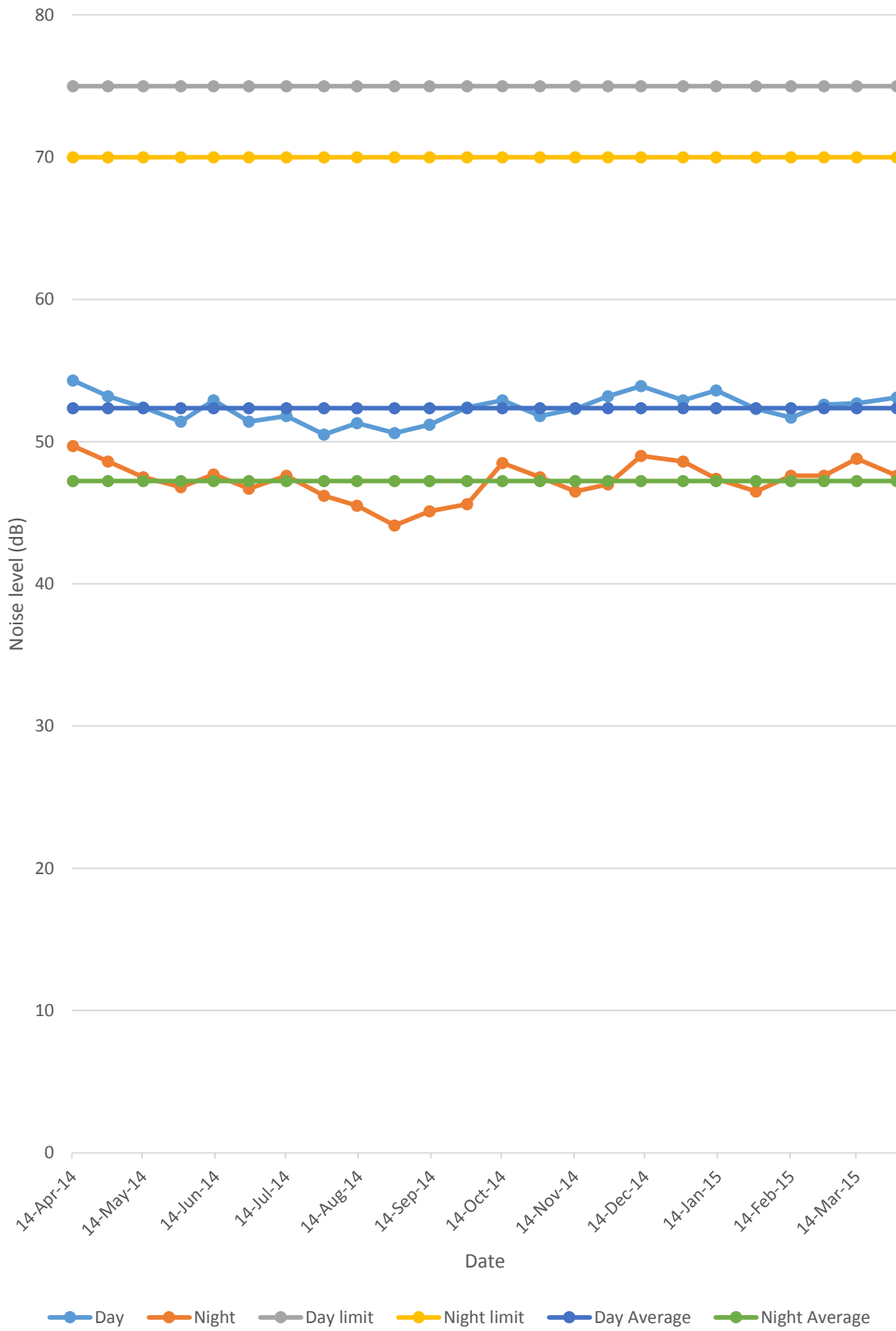
**Project : Orient U/G**

**Monitoring Station :Near Adarsh Nagar Colony**

<b>DATE OF SAMPLING</b>	<b>DAY</b>	<b>NIGHT</b>
14-Apr-14	54.3	49.7
29-Apr-14	53.2	48.6
14-May-14	52.4	47.5
30-May-14	51.4	46.8
13-Jun-14	52.9	47.7
28-Jun-14	51.4	46.7
14-Jul-14	51.8	47.6
30-Jul-14	50.5	46.2
13-Aug-14	51.3	45.5
29-Aug-14	50.6	44.1
13-Sep-14	51.2	45.1
29-Sep-14	52.4	45.6
14-Oct-14	52.9	48.5
30-Oct-14	51.8	47.5
14-Nov-14	52.3	46.5
28-Nov-14	53.2	47
12-Dec-14	53.9	49
30-Dec-14	52.9	48.6
13-Jan-15	53.6	47.4
30-Jan-15	52.3	46.5
14-Feb-15	51.7	47.6
28-Feb-15	52.6	47.6
14-Mar-15	52.7	48.8
31-Mar-15	53.1	47.6
<b>Maximum</b>	<b>54.3</b>	<b>49.7</b>
<b>Minimum</b>	<b>50.5</b>	<b>44.1</b>
<b>Mean</b>	<b>52.35</b>	<b>47.24</b>
<b>Standard</b>	<b>75</b>	<b>70</b>

*All values are in dB(A)*

Graph showing Noise for Near Adarsh Nagar colony



**Table : 90 Drinking Water Quality**

<b>Project</b>	<b>Samleswari OCP</b>	
<b>Monitoring Station</b>	Water from intake ( Raw water) at IWSS	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	9.9.2014	
<b>Colour(Hazen)</b>	6	<b>5</b>
<b>Odour</b>	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	11	<b>5</b>
<b>pH</b>	7.81	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	32	<b>200</b>
<b>Total Hardness(mg/L)</b>	56	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	12	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	94	<b>500</b>
<b>Calcium(mg/L)</b>	12.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	16	<b>200</b>
<b>Nitrate(mg/L)</b>	3.99	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	<b>5</b>
<b>Hexavelent Chromium(mg/L)</b>	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<b>0.001</b>

**Table : 91 Drinking Water Quality**

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP	
<b>Monitoring Station</b>	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	04.04.14	8.5.14	7.6.2014	08.07.14	
<b>Colour(Hazen)</b>	2	7	3	7	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	2	10	4	9	<b>5</b>
<b>pH</b>	8.42	8.36	8.36	8.46	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	68	60	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	112	112	96	112	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	26	20	26	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	192	198	170	194	<b>500</b>
<b>Calcium(mg/L)</b>	27.2	27.3	22.4	25.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	39	39	29	34	<b>200</b>
<b>Nitrate(mg/L)</b>	3.54	3.54	4.43	3.1	<b>45</b>
<b>Fluoride(mg/L)</b>	0.22	0.16	0.18	0.32	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleshwari OCP	
<b>Monitoring Station</b>	Samleshwari colony Tap water	Samleswari colony Tap water	Samleshwari colony Tap water	Samleshwari colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.08.14	9.9.2014	10.10.2014	8.11.2014	
<b>Colour(Hazen)</b>	6	7	2	6	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	8	12	3	9	<b>5</b>
<b>pH</b>	8.43	8.43	8.45	8.45	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	64	68	72	68	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	112	120	108	<b>300</b>
<b>Iron(mg/L)</b>	0.13	0.11	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	24	26	26	24	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	182	196	206	194	<b>500</b>
<b>Calcium(mg/L)</b>	22.4	27.2	27.2	25.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.1	0.05	0.14	0.09	<b>0.1</b>
<b>Sulphate(mg/L)</b>	29	43	39	38	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	4.43	4.43	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.14	0.27	0.12	0.13	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.01	0.05	0.07	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP	
<b>Monitoring Station</b>	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	06.12.14	12.01.15	05.02.15	9.3.2015	
<b>Colour(Hazen)</b>	2	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	3	3	2	<b>5</b>
<b>pH</b>	7.42	8.39	8.45	8.42	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	60	72	68	68	<b>200</b>
<b>Total Hardness(mg/L)</b>	112	112	116	112	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	24	26	26	24	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	198	198	202	192	<b>500</b>
<b>Calcium(mg/L)</b>	25.6	27.2	27.2	25.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.05	0.05	0.05	0.05	<b>0.1</b>
<b>Sulphate(mg/L)</b>	41	40	38	35	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	4.43	5.32	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.14	0.19	0.16	0.18	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.05	0.05	0.03	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 92 Drinking Water Quality**

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP	
<b>Monitoring Station</b>	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	04.04.14	8.5.14	7.6.2014	08.07.14	
<b>Colour(Hazen)</b>	2	6	4	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	6	5	6	<b>5</b>
<b>pH</b>	7.53	7.54	7.54	7.54	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	20	20	20	20	<b>200</b>
<b>Total Hardness(mg/L)</b>	32	36	36	32	<b>300</b>
<b>Iron(mg/L)</b>	0.27	0.27	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	8	8	8	6	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.18	0.19	0.15	0.12	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	58	60	62	58	<b>500</b>
<b>Calcium(mg/L)</b>	8	8	8	8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.24	0.24	0.26	0.26	<b>0.1</b>
<b>Sulphate(mg/L)</b>	11	11	11	11	<b>200</b>
<b>Nitrate(mg/L)</b>	2.22	0.89	1.33	1.33	<b>45</b>
<b>Fluoride(mg/L)</b>	0.07	0.08	0.07	0.08	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.035	0.035	0.036	0.036	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleshwari OCP	
<b>Monitoring Station</b>	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.08.14	9.9.2014	10.10.2014	8.11.2014	
<b>Colour(Hazen)</b>	4	5	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	5	6	3	4	<b>5</b>
<b>pH</b>	7.48	7.48	7.48	7.51	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	20	24	20	20	<b>200</b>
<b>Total Hardness(mg/L)</b>	40	40	36	40	<b>300</b>
<b>Iron(mg/L)</b>	0.11	0.12	0.11	0.08	<b>0.3</b>
<b>Chloride(mg/L)</b>	10	8	8	8	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.15	0.15	0.14	0.18	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	66	66	64	72	<b>500</b>
<b>Calcium(mg/L)</b>	8	8	8	9.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.27	0.11	0.41	0.27	<b>0.1</b>
<b>Sulphate(mg/L)</b>	11	12	11	13	<b>200</b>
<b>Nitrate(mg/L)</b>	2.22	2.21	2.66	1.77	<b>45</b>
<b>Fluoride(mg/L)</b>	0.08	0.09	0.06	0.08	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	
<b>Monitoring Station</b>	Anapali village well water	Anapali village well water	Anapali village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	06.12.14	12.01.15	05.02.15	
<b>Colour(Hazen)</b>	3	3	4	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	4	5	<b>5</b>
<b>pH</b>	7.46	7.53	7.57	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	16	20	20	<b>200</b>
<b>Total Hardness(mg/L)</b>	32	36	36	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	0.08	0.07	<b>0.3</b>
<b>Chloride(mg/L)</b>	8	8	8	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.15	0.12	0.12	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	60	62	68	<b>500</b>
<b>Calcium(mg/L)</b>	8	8	8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.09	0.2	0.19	<b>0.1</b>
<b>Sulphate(mg/L)</b>	11	12	12	<b>200</b>
<b>Nitrate(mg/L)</b>	1.77	1.77	2.21	<b>45</b>
<b>Fluoride(mg/L)</b>	0.06	0.08	0.07	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.04	0.05	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 93 Drinking Water Quality**

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	
<b>Monitoring Station</b>	Raw water at mine no. 2	Raw water at mine no. 2	Raw water at mine no. 2	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	04.04.14	07.07.14	10.10.2014	
<b>Colour(Hazen)</b>	5	5	4	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	6	7	6	<b>5</b>
<b>pH</b>	7.58	7.57	7.53	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	44	44	44	<b>200</b>
<b>Total Hardness(mg/L)</b>	76	76	84	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	14	16	18	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.19	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	116	136	144	<b>500</b>
<b>Calcium(mg/L)</b>	16	17.6	19.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	0.16	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	25	29	27	<b>200</b>
<b>Nitrate(mg/L)</b>	3.54	4.87	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.17	0.17	0.1	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.002	<0.001	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	0.016	<0.01	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.010	<0.01	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 94 Drinking Water Quality**

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP	
<b>Monitoring Station</b>	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	04.04.14	8.5.14	7.6.2014	07.07.14	
<b>Colour(Hazen)</b>	3	5	4	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	5	6	5	7	<b>5</b>
<b>pH</b>	7.36	7.36	7.37	7.36	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	20	20	20	20	<b>200</b>
<b>Total Hardness(mg/L)</b>	36	36	40	36	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	8	8	8	8	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.16	0.16	0.16	0.15	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	64	66	68	64	<b>500</b>
<b>Calcium(mg/L)</b>	9.6	8	8	8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.08	0.08	0.08	0.08	<b>0.1</b>
<b>Sulphate(mg/L)</b>	13	12	13	11	<b>200</b>
<b>Nitrate(mg/L)</b>	1.77	2.66	2.66	2.66	<b>45</b>
<b>Fluoride(mg/L)</b>	0.07	0.07	0.07	0.07	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 95 Drinking Water Quality**

Project	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Khairkuni village tube well water	Khairkuni village tube well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	8.5.14	8.9.2014	
<b>Colour(Hazen)</b>	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	2	<b>5</b>
<b>pH</b>	8.44	8.36	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	76	76	<b>200</b>
<b>Total Hardness(mg/L)</b>	124	124	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	28	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	214	218	<b>500</b>
<b>Calcium(mg/L)</b>	28.8	28.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.06	0.2	<b>0.1</b>
<b>Sulphate(mg/L)</b>	43	41	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.19	0.32	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.01	0.52	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<b>0.001</b>

**Table : 96 Drinking Water Quality**

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	8.9.2014	10.11.2014	13.01.15	10.3.2015	
<b>Colour(Hazen)</b>	6	6	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	8	9	4	3	<b>5</b>
<b>pH</b>	8.22	8.36	8.2	8.16	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	44	52	48	44	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	80	76	72	<b>300</b>
<b>Iron(mg/L)</b>	0.08	BDL	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	18	18	18	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	132	142	134	126	<b>500</b>
<b>Calcium(mg/L)</b>	17.6	19.2	17.6	16	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	25	28	26	23	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	3.99	3.54	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.16	0.12	0.13	0.1	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	0.04	0.05	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 97 Drinking Water Quality**

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Bandhbahal tap water	Bandhbahal tap water	Bandhbahal tap Colony tap water	Bandhbahal tap Colony tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Date</b>	05.04.14	7.6.2014	11.08.14	08.09.14	
<b>Colour(Hazen)</b>	2	2	6	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	4	9	9	<b>5</b>
<b>pH</b>	8.23	8.31	8.48	8.76	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	48	32	36	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	72	48	56	<b>300</b>
<b>Iron(mg/L)</b>	0.07	0.08	0.18	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	18	16	12	12	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	126	124	86	98	<b>500</b>
<b>Calcium(mg/L)</b>	16	17.6	11.2	12.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	24	24	15	17	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	3.54	4.87	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.12	0.12	0.09	0.111	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.002	0.002	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.01	0.05	0.034	<0.01	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Bandhbahal tap water	Bandhbahal tap water	Bandhbahal tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	11.10.2014	08.12.14	09.02.15	
<b>Colour(Hazen)</b>	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	3	4	<b>5</b>
<b>pH</b>	8.27	8.3	8.21	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	52	44	40	<b>200</b>
<b>Total Hardness(mg/L)</b>	80	72	72	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	16	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	138	132	122	<b>500</b>
<b>Calcium(mg/L)</b>	19.2	17.6	16	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.05	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	28	25	20	<b>200</b>
<b>Nitrate(mg/L)</b>	3.99	3.54	3.1	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.13	0.11	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.03	0.05	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 98 Drinking Water Quality**

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Date</b>	05.04.14	7.6.2014	09.07.14	11.08.14	
<b>Colour(Hazen)</b>	3	2	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	3	4	4	<b>5</b>
<b>pH</b>	8.45	8.42	8.46	8.42	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	76	76	76	84	<b>200</b>
<b>Total Hardness(mg/L)</b>	120	124	128	132	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	28	28	30	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	202	216	224	236	<b>500</b>
<b>Calcium(mg/L)</b>	7.2	28.8	28.8	30.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.06	0.08	0.08	0.5	<b>0.1</b>
<b>Sulphate(mg/L)</b>	36	37	43	43	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	4.43	4.43	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.27	0.25	0.35	0.25	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.01	0.03	0.03	0.43	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	Nil	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	11.10.2014	10.11.2014	08.12.14	13.01.15	
<b>Colour(Hazen)</b>	2	3	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	4	3	4	<b>5</b>
<b>pH</b>	8.47	8.45	8.48	8.47	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	80	68	68	<b>200</b>
<b>Total Hardness(mg/L)</b>	120	132	112	112	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	BDL	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	30	26	26	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	210	228	204	196	<b>500</b>
<b>Calcium(mg/L)</b>	28.8	32	27.2	27.2	<b>75</b>
<b>Copper(mg/L)</b>	BDL	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.17	0.2	0.22	0.19	<b>0.1</b>
<b>Sulphate(mg/L)</b>	42	47	38	38	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87.	4.43	4.43	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.16	0.26	0.14	0.18	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.49	0.29	0.39	0.19	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Lakhanpur OCP	Lakhanpur OCP	
<b>Monitoring Station</b>	Ubuda village tube well water	Ubuda village tube well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	09.02.15	10.3.2015	
<b>Colour(Hazen)</b>	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	2	<b>5</b>
<b>pH</b>	8.53	8.48	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	120	120	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	28	26	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	206	210	<b>500</b>
<b>Calcium(mg/L)</b>	27.2	28.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.09	0.05	<b>0.1</b>
<b>Sulphate(mg/L)</b>	36	41	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.15	0.17	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.2	<0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<b>0.001</b>

**Table : 99 Drinking Water Quality**

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP	
<b>Monitoring Station</b>	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	8.5.14	7.6.2014	08.07.14	
<b>Colour(Hazen)</b>	3	6	4	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	7	5	7	<b>5</b>
<b>pH</b>	8.29	8.23	8.15	8.24	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	48	48	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	68	76	76	80	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	12	16	16	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.16	0.19	0.12	0.13	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	118	132	136	138	<b>500</b>
<b>Calcium(mg/L)</b>	16	17.6	17.6	19.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	23	26	26	30	<b>200</b>
<b>Nitrate(mg/L)</b>	3.54	1.77	2.22	2.66	<b>45</b>
<b>Fluoride(mg/L)</b>	0.13	0.12	0.14	0.16	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.016	0.016	0.016	0.016	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP	
<b>Monitoring Station</b>	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	11.08.14	9.9.2014	11.10.2014	10.11.2014	
<b>Colour(Hazen)</b>	5	5	2	4	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	6	7	2	5	<b>5</b>
<b>pH</b>	8.27	8.24	8.31	8.29	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	44	44	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	76	72	80	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	14	18	14	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.16	0.17	0.17	0.13	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	130	136	126	138	<b>500</b>
<b>Calcium(mg/L)</b>	16	17.6	16	19.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.11	0.07	0.05	0.04	<b>0.1</b>
<b>Sulphate(mg/L)</b>	22	28	23	28	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	4.43	3.99	3.54	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.17	0.09	0.1	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.016	0.03	0.05	0.08	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP	
<b>Monitoring Station</b>	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.12.14	13.01.15	09.02.15	10.3.2015	
<b>Colour(Hazen)</b>	2	3	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	5	4	4	<b>5</b>
<b>pH</b>	8.27	8.26	8.23	8.25	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	36	44	52	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	64	64	84	88	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	14	14	18	18	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.11	0.12	0.15	0.12	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	118	114	144	152	<b>500</b>
<b>Calcium(mg/L)</b>	14.4	14.4	19.2	20.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	19	19	26	29	<b>200</b>
<b>Nitrate(mg/L)</b>	3.54	3.66	4.87	5.32	<b>45</b>
<b>Fluoride(mg/L)</b>	0.1	0.11	0.1	0.14	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.05	0.06	0.08	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>&lt;0.001</b>

**Table : 100 Drinking Water Quality**

<b>Project</b>	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Intake water of IWSS	Intake water of IWSS	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	09.09.14	10.3.2015	
<b>Colour(Hazen)</b>	6	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	12	9	<b>5</b>
<b>pH</b>	7.58	7.62	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	76	<b>200</b>
<b>Total Hardness(mg/L)</b>	132	144	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	238	246	<b>500</b>
<b>Calcium(mg/L)</b>	30.4	33.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	47	46	<b>200</b>
<b>Nitrate(mg/L)</b>	6.2	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.47	0.42	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.07	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.21	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.002	<0.001	<b>0.001</b>

**Table : 101 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	CHP tap water	CHP tap water	CHP tap water	CHP tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	9.6.2014	09.09.14	09.12.14	10.3.2015	
<b>Colour(Hazen)</b>	3	5	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	6	2	4	<b>5</b>
<b>pH</b>	8.11	8.21	8.16	8.17	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	44	44	40	40	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	72	68	64	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	18	16	16	14	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	126	126	126	112	<b>500</b>
<b>Calcium(mg/L)</b>	16	16	16	14.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.05	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	25	24	23	19	<b>200</b>
<b>Nitrate(mg/L)</b>	6.2	7.97	3.54	3.99	<b>45</b>
<b>Fluoride(mg/L)</b>	0.18	0.13	0.11	0.09	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.06	<0.01	0.2	0.08	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Belpahar Integrated TwonshipInderadhanus Club outlet	Belpahar Integrated Township Inderadhanus Club outlet	Belpahar Integrated Township Inderadhanus Club outlet	Belpahar Integrated TwonshipInderadhanus Club outlet	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	12.5.14	09.07.14	10.11.2014	13.01.15	
<b>Colour(Hazen)</b>	2	3	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	5	4	3	<b>5</b>
<b>pH</b>	7.72	7.69	7.67	7.63	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	64	60	52	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	104	96	92	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	0.07	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	24	22	18	22	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.16	0.18	22	0.13	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	178	178	0.14	162	<b>500</b>
<b>Calcium(mg/L)</b>	24	24	174	22.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	35	35	24	31	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	3.54	33	0.99	<b>45</b>
<b>Fluoride(mg/L)</b>	0.16	0.23	4.87	0.15	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.003	<0.001	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	0.016	<0.01	0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	0.05	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 102 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Belpahar Colony Tap water	Belpahar Colony Tap water	Belpahar Colony Tap water	Belpahar Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	09.07.14	11.10.2014	13.01.15	
<b>Colour(Hazen)</b>	3	5	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	7	4	4	<b>5</b>
<b>pH</b>	8.19	8.13	8.14	8.14	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	44	44	44	44	<b>200</b>
<b>Total Hardness(mg/L)</b>	68	72	76	68	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	0.05	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	14	14	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	122	126	130	120	<b>500</b>
<b>Calcium(mg/L)</b>	14.4	16	17.6	16	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.04	0.05	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	19	26	26	25	<b>200</b>
<b>Nitrate(mg/L)</b>	2.66	7.97	3.54	3.1	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.13	0.09	0.11	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.01	0.06	0.15	0.19	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	Nil	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 103 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	9.6.2014	11.08.14	11.10.2014	
<b>Colour</b>	2	2	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity</b>	3	4	4	2	<b>5</b>
<b>pH</b>	8.36	8.35	7.45	8.31	<b>6.5-8.5</b>
<b>Total Alkalinity</b>	48	48	56	40	<b>200</b>
<b>Total Hardness</b>	64	76	104	68	<b>300</b>
<b>Iron</b>	<0.06	<0.06	0.21	0.07	<b>0.3</b>
<b>Chloride</b>	14	16	26	14	<b>250</b>
<b>Residual Free chlorine</b>	nil	0.19	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid</b>	115	126	176	120	<b>500</b>
<b>Calcium</b>	18	17.6	24	16	<b>75</b>
<b>Copper</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate</b>	19	26	32	23	<b>200</b>
<b>Nitrate</b>	3.1	2.22	4.87	3.54	<b>45</b>
<b>Fluoride</b>	0.12	0.11	0.14	0.1	<b>1.0</b>
<b>Selenium</b>	<0.002	<0.002	<0.002	BDL	<b>0.01</b>
<b>Arsenic</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium</b>	0.003	0.003	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc</b>	<0.010	<0.010	0.079	0.03	<b>5</b>
<b>Hexavalent Chromium</b>	<0.01	<0.01	<0.06	<0.06	<b>0.05</b>
<b>Boron</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics</b>	nil	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Belpahar Integrated twonshipmausimaamandir outlet	Belpahar Integrated township mausimaamandir outlet	Belpahar Integrated TwonshipInderadhanus Club outlet	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	09.12.14	09.02.15	10.3.2015	
<b>Colour(Hazen)</b>	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	3	4	<b>5</b>
<b>pH</b>	8.28	8.29	7.65	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	36	44	56	<b>200</b>
<b>Total Hardness(mg/L)</b>	64	72	104	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	14	16	22	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	0.15	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	114	126	172	<b>500</b>
<b>Calcium(mg/L)</b>	14.4	16	24	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	21	22	33	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	2.66	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.09	0.1	0.13	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.0005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.03	0.02	<0.02	<b>5</b>
<b>Hexavealent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 104 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	12.5.14	9.6.2014	09.07.14	
<b>Colour(Hazen)</b>	4	5	3	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	5	6	5	7	<b>5</b>
<b>pH</b>	8.43	8.43	8.37	8.37	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	56	68	64	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	116	104	104	120	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	24	24	24	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	0.15	0.12	0.15	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	188	184	178	208	<b>500</b>
<b>Calcium(mg/L)</b>	25.6	25.6	24	28.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	43	36	33	39	<b>200</b>
<b>Nitrate(mg/L)</b>	3.99	3.54		4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.26	0.27	3.1	0.25	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	0.24	0.24	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.003	0.003	0.003	0.003	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	Nil	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	11.08.14	09.09.14	11.10.2014	10.11.2014	
<b>Colour(Hazen)</b>	6	6	3	6	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	7	8	5	8	<b>5</b>
<b>pH</b>	8.32	8.38	8.46	8.32	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	76	72	72	84	<b>200</b>
<b>Total Hardness(mg/L)</b>	124	116	120	128	<b>300</b>
<b>Iron(mg/L)</b>	0.14	0.21	0.6	0.43	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	26	28	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.14	0.15	0.19	0.14	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	216	208	212	224	<b>500</b>
<b>Calcium(mg/L)</b>	28.8	27.2	27.2	30.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	36	43	36	43	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	4.87	4.43	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.23	0.24	0.13	0.25	<b>1.0</b>
<b>Selenium(mg/L)</b>	0.24	0.24	BDL	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.01	0.05	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	09.12.14	13.01.15	09.02.15	10.3.2015	
<b>Colour(Hazen)</b>	4	3	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	5	5	4	3	<b>5</b>
<b>pH</b>	8.48	8.39	8.33	8.25	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	68	68	72	76	<b>200</b>
<b>Total Hardness(mg/L)</b>	112	112	120	124	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	0.19	0.09	0.07	<b>0.3</b>
<b>Chloride(mg/L)</b>	24	26	28	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.13	0.15	0.12	0.1	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	204	194	210	216	<b>500</b>
<b>Calcium(mg/L)</b>	27.2	25.6	28.8	28.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.3	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	35	37	32	36	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	4.43	4.43	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.15	0.17	0.18	0.15	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.03	0.05	<0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 105 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Excavation W/S tap water	Excavation W/S tap water	Excavation W/S tap water	Excavation W/S tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	12.5.14	11.08.14	10.11.2014	09.02.15	
<b>Colour(Hazen)</b>	5	4	3	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	6	7	6	4	<b>5</b>
<b>pH</b>	8.1	8.15	8.14	8.14	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	52	48	40	<b>200</b>
<b>Total Hardness(mg/L)</b>	76	80	84	68	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	0.17	0.05	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	18	20	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	Nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	130	142	148	118	<b>500</b>
<b>Calcium(mg/L)</b>	17.6	20.8	20.8	16	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.04	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	24	27	31	20	<b>200</b>
<b>Nitrate(mg/L)</b>	6.64	7.09	7.09	3.1	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.13	0.13	0.11	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.01	0.057	0.2	0.1	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 106 Drinking Water Quality**

Project	Belpahar OCP	Belpahar OCP	
<b>Monitoring Station</b>	Intake water of IWSS	Intake water of IWSS	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	09.09.14	10.3.2015	
<b>Colour(Hazen)</b>	6	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	12	9	<b>5</b>
<b>pH</b>	7.58	7.62	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	76	<b>200</b>
<b>Total Hardness(mg/L)</b>	132	144	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	238	246	<b>500</b>
<b>Calcium(mg/L)</b>	30.4	33.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	47	46	<b>200</b>
<b>Nitrate(mg/L)</b>	6.2	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.47	0.42	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.07	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.21	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.002	<0.001	<b>0.001</b>

**Table : 107 Drinking Water Quality**

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP	
<b>Monitoring Station</b>	Well at Balinda	Well at Balinda	Well at Balinga	Well at Balinga	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.04.14	5.5.14	9.6.2014	03.07.14	
<b>Dt. of sampling</b>	3	8	4	11	<b>5</b>
<b>Colour(Hazen)</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Odour</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Taste</b>	5	11	5	16	<b>5</b>
<b>Turbidity(NTU)</b>	8.69	8.58	8.68	8.69	<b>6.5-8.5</b>
<b>pH</b>	96	88	84	104	<b>200</b>
<b>Total Alkalinity(mg/L)</b>	152	144	140	160	<b>300</b>
<b>Total Hardness(mg/L)</b>	0.26	0.26		<0.06	<b>0.3</b>
<b>Iron(mg/L)</b>	34	32	30	34	<b>250</b>
<b>Chloride(mg/L)</b>	0.14	0.18	0.16	0.13	<b>0.2</b>
<b>Residual Free chlorine(mg/L)</b>	266	252	244	276	<b>500</b>
<b>Total Dissolve Solid(mg/L)</b>	36	33.6	35.2	36.8	<b>75</b>
<b>Calcium(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Copper(mg/L)</b>	0.73	0.73	0.53	0.53	<b>0.1</b>
<b>Manganese(mg/L)</b>	55	46	48	53	<b>200</b>
<b>Sulphate(mg/L)</b>	5.32	3.54	3.54	4.87	<b>45</b>
<b>Nitrate(mg/L)</b>	0.34	0.32	0.32	0.35	<b>1.5</b>
<b>Fluoride(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Selenium(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Arsenic(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Cadmium(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Zinc(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Boron(mg/L)</b>	nil	Nil	Nil	Nil	<b>Nil</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP	
<b>Monitoring Station</b>	Well at Balinga	Well at Balinga	Well at Balinga	Well at Balinga	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.08.14	02.09.14	7.10.2014	5.11.2014	
<b>Colour(Hazen)</b>	9	10	4	8	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	14	13	5	14	<b>5</b>
<b>pH</b>	8.65	8.68	8.64	8.63	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	96	62	96	92	<b>200</b>
<b>Total Hardness(mg/L)</b>	164	152	160	156	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	42	36	36	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.17	0.18	0.17	0.15	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	288	272	278	274	<b>500</b>
<b>Calcium(mg/L)</b>	38.4	36.8	36.8	38.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.38	<0.02	0.04	0.03	<b>0.1</b>
<b>Sulphate(mg/L)</b>	47	51	55	51	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	5.32	6.2	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.26	0.35	0.24	0.24	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.015	<0.01	0.05	0.03	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP	
<b>Monitoring Station</b>	Well at Balinga	Well at Balinga	Well at Balinga	Well at Balinga	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	03.12.14	01.01.15	04.02.15	4.3.2015	
<b>Colour(Hazen)</b>	3	4	4	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	5	5	5	<b>5</b>
<b>pH</b>	8.62	8.64	8.63	8.59	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	88	88	84	92	<b>200</b>
<b>Total Hardness(mg/L)</b>	152	148	148	152	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	34	14	34	34	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.15	0.12	0.13	0.14	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	272	258	258	266	<b>500</b>
<b>Calcium(mg/L)</b>	35.2	35.2	35.2	36.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	0.05	0.05	<b>0.1</b>
<b>Sulphate(mg/L)</b>	52	49	46	51	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	5.32	4.87	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.25	0.24	0.24	0.22	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.02	0.03	<0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 108 Drinking Water Quality**

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Treated water of Basundhara	Treated water of treatment plant, Basundhara	Treated water of treatment plant, Basundhara	Treated water of treatment plant Basundhara	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.04.14	5.5.14	3.6.2014	03.07.14	
<b>Colour(Hazen)</b>	3	7	3	8	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	10	3	11	<b>5</b>
<b>pH</b>	8.26	8.24	8.2	8.27	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	44	100	48	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	72	150	72	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	16	65	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.19	0.16	nil	0.17	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	124	128	302	128	<b>500</b>
<b>Calcium(mg/L)</b>	16	17.6	36	17.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	0.1	0.23	<b>0.1</b>
<b>Sulphate(mg/L)</b>	24	24	57	28	<b>200</b>
<b>Nitrate(mg/L)</b>	3.54	3.1	8.6	3.54	<b>45</b>
<b>Fluoride(mg/L)</b>	0.1	0.11	0.52	0.16	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	0.33	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.002	0.002	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	0.026	0.016	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	
Monitoring Station	Treated water of Basundhara	Treated water of Basundhara	Treated water of Basundhara	<b>Indian Drinking Standards (IS-10500)</b>
Dt. of sampling	05.08.14	02.09.14	7.10.2014	
Colour(Hazen)	7	8	2	<b>5</b>
Odour	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
Taste	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
Turbidity(NTU)	10	13	2	<b>5</b>
pH	8.21	8.26	8.21	<b>6.5-8.5</b>
Total Alkalinity(mg/L)	52	44	44	<b>200</b>
Total Hardness(mg/L)	84	72	68	<b>300</b>
Iron(mg/L)	<0.06	<0.06	<0.06	<b>0.3</b>
Chloride(mg/L)	20	16	14	<b>250</b>
Residual Free chlorine(mg/L)	0.12	0.12	0.15	<b>0.2</b>
Total Dissolve Solid(mg/L)	144	128	116	<b>500</b>
Calcium(mg/L)	19.2	16	16	<b>75</b>
Copper(mg/L)	<0.03	<0.03	<0.03	<b>0.05</b>
Manganese(mg/L)	<0.02	0.22	<0.02	<b>0.1</b>
Sulphate(mg/L)	26	24	24	<b>200</b>
Nitrate(mg/L)	4.43	4.43	3.99	<b>45</b>
Fluoride(mg/L)	0.1	0.16	0.09	<b>1.0</b>
Selenium(mg/L)	<0.002	<0.002	<0.002	<b>0.01</b>
Arsenic(mg/L)	<0.002	<0.002	<0.002	<b>0.05</b>
Lead(mg/L)	<0.005	<0.005	<0.005	<b>0.05</b>
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<b>0.01</b>
Zinc(mg/L)	0.02	<0.01	0.05	<b>5</b>
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<b>0.05</b>
Boron(mg/L)	<0.20	<0.20	<0.20	<b>1</b>
Faecal col.as MPN/100ml	Nil	Nil	Nil	<b>Nil</b>
Phenolics(mg/L)	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Treated water of Basundhara	Treated water of Basundhara	Treated water of Basundhara	Treated water of Basundhara	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	5.11.2014	03.12.14	04.02.15	4.3.2015	
<b>Colour(Hazen)</b>	7	2	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	11	3	3	4	<b>5</b>
<b>pH</b>	8.18	8.23	8.24	8.27	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	44	36	36	36	<b>200</b>
<b>Total Hardness(mg/L)</b>	76	60	60	56	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	14	14	12	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.16	0.14	0.14	0.16	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	136	110	106	98	<b>500</b>
<b>Calcium(mg/L)</b>	17.6	14.4	14.4	12.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	25	19	19	18	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	3.54	3.54	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.08	0.11	0.09	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.05	0.05	0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 109 Drinking Water Quality**

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Water of Intake well at Basundharanala	Water of Intake well at Basundharanala	Water of Intake well at Basundharanala	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	5.11.2014	02.01.15	4.3.2015	
<b>Colour(Hazen)</b>	8	2	6	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	13	3	11	<b>5</b>
<b>pH</b>	7.95	8.25	7.98	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	56	40	56	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	64	96	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	14	22	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	0.16	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	176	108	168	<b>500</b>
<b>Calcium(mg/L)</b>	24	14.4	22.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	6.2	19	30	<b>200</b>
<b>Nitrate(mg/L)</b>	0.24	3.54	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.14	0.09	0.26	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.06	0.03	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 110 Drinking Water Quality**

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.04.14	5.5.14	3.6.2014	03.07.14	
<b>Colour(Hazen)</b>	2	2	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	3	4	3	<b>5</b>
<b>pH</b>	8.24	8.17	8.16	8.24	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	88	84	80	96	<b>200</b>
<b>Total Hardness(mg/L)</b>	136	136	136	142	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	30	32	30	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	234	238	238	244	<b>500</b>
<b>Calcium(mg/L)</b>	32	32	32	33.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	0.134	0.134	0.23	0.23	<b>0.1</b>
<b>Sulphate(mg/L)</b>	43	43	51	48	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	4.43	4.2	5.32	<b>45</b>
<b>Fluoride(mg/L)</b>	0.29	0.29	0.87	0.33	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	0.33	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.025	0.025	0.026	0.016	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.08.14	02.09.14	7.10.2014	5.11.2014	
<b>Colour(Hazen)</b>	3	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	3	3	3	<b>5</b>
<b>pH</b>	8.27	8.25	8.18	8.25	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	88	84	76	92	<b>200</b>
<b>Total Hardness(mg/L)</b>	148	136	128	152	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	32	28	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	256	244	224	268	<b>500</b>
<b>Calcium(mg/L)</b>	35.2	32	30.4	36.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	45	47	46	45	<b>200</b>
<b>Nitrate(mg/L)</b>	5.76	4.87	5.32	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.29	0.32	0.18	0.27	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	BDL	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.01	<0.01	0.07	0.06	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP	
<b>Monitoring Station</b>	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	03.12.14	01.01.15	04.02.15	4.3.2015	
<b>Colour(Hazen)</b>	3	2	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	3	4	3	<b>5</b>
<b>pH</b>	8.15	8.27	8.27	8.25	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	80	84	84	88	<b>200</b>
<b>Total Hardness(mg/L)</b>	132	140	140	148	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	32	32	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	236	244	246	254	<b>500</b>
<b>Calcium(mg/L)</b>	30.4	33.6	33.6	35.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	46	46	43	51	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	4.87	5.76	5.32	<b>45</b>
<b>Fluoride(mg/L)</b>	0.16	0.21	0.25	0.22	<b>1.0</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.06	0.05	0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 111 Drinking Water Quality**

Project	Orient Area	
<b>Monitoring Station</b>	Filtration plant at Rampur sub area	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	
<b>Colour(Hazen)</b>	3	<b>5</b>
<b>Odour</b>	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	5	<b>5</b>
<b>pH</b>	8.13	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	64	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.14	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	176	<b>500</b>
<b>Calcium(mg/L)</b>	24	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	33	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	<b>45</b>
<b>Fluoride(mg/L)</b>	0.15	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<b>5</b>
<b>Hexavelent Chromium(mg/L)</b>	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<b>0.001</b>

**Table : 112 Drinking Water Quality**

<b>Project</b>	Orient Area	
<b>Monitoring Station</b>	4 pit filtration plant of Orient sub area	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	
<b>Colour(Hazen)</b>	3	<b>5</b>
<b>Odour</b>	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	<b>5</b>
<b>pH</b>	8.34	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	116	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	0.17	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	198	<b>500</b>
<b>Calcium(mg/L)</b>	27.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	41	<b>200</b>
<b>Nitrate(mg/L)</b>	3.99	<b>45</b>
<b>Fluoride(mg/L)</b>	0.28	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<b>0.001</b>

**Table : 113 Drinking Water Quality**

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	7.5.14	5.6.2014	08.07.14	
<b>Colour(Hazen)</b>	2	3	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	5	3	4	<b>5</b>
<b>pH</b>	8.12	7.92	8.13	8.12	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	68	72	68	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	112	112	112	112	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	24	24	24	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	188	192	196	194	<b>500</b>
<b>Calcium(mg/L)</b>	25.6	25.6	25.6	25.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	37	33	34	37	<b>200</b>
<b>Nitrate(mg/L)</b>	3.99	3.1	3.98	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.24	0.14	0.21	0.24	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.08.14	05.09.14	01.10.2014	8.11.2014	
<b>Colour(Hazen)</b>	2	3	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	3	4	4	2	<b>5</b>
<b>pH</b>	8.16	7.94	8.16	8.18	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	64	56	64	56	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	96	104	96	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	22	24	20	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	182	172	176	174	<b>500</b>
<b>Calcium(mg/L)</b>	24	22.4	24	24	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	31	33	35	35	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	3.99	4.43	5.32	<b>45</b>
<b>Fluoride(mg/L)</b>	0.27	0.25	0.11	0.25	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.01	<0.01	<0.01	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.12.14	14.01.15	05.02.15	9.3.2015	
<b>Colour(Hazen)</b>	2	3	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	4	3	2	<b>5</b>
<b>pH</b>	8.13	8.08	8.1	7.95	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	64	68	68	64	<b>200</b>
<b>Total Hardness(mg/L)</b>	104	108	112	112	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	24	26	24	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	182	188	198	192	<b>500</b>
<b>Calcium(mg/L)</b>	24	25.6	27.2	25.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	33	38	43	34	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	5.32	5.32	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.12	0.14	0.21	0.23	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.02	0.03	0.02	<0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 114 Drinking Water Quality**

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	05.04.14	7.5.14	5.6.2014	07.07.14	
<b>Colour(Hazen)</b>	2	8	3	9	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	11	3	13	<b>5</b>
<b>pH</b>	8.51	8.43	8.45	8.45	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	84	76	76	88	<b>200</b>
<b>Total Hardness(mg/L)</b>	136	124	120	136	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	30	28	26	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	232	216	212	236	<b>500</b>
<b>Calcium(mg/L)</b>	33.6	28.8	27.2	32	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	46	36	38	43	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	3.1	5.32	4.43	<b>45</b>
<b>Fluoride(mg/L)</b>	0.26	0.18	0.23	0.33	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.08.14	05.09.14	01.10.2014	8.11.2014	
<b>Colour(Hazen)</b>	8	8	2	7	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	13	12	3	12	<b>5</b>
<b>pH</b>	8.48	8.42	8.47	8.46	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	84	80	84	84	<b>200</b>
<b>Total Hardness(mg/L)</b>	144	132	140	140	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	32	30	32	32	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	252	236	244	248	<b>500</b>
<b>Calcium(mg/L)</b>	33.6	30.4	32	33.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	44	45	46	52	<b>200</b>
<b>Nitrate(mg/L)</b>	5.76	5.32	5.76	5.76	<b>45</b>
<b>Fluoride(mg/L)</b>	0.28	0.28	0.16	0.26	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.019	<0.01	<0.01	0.03	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality

Project	Orient Area	Orient Area	Orient Area	Orient Area	
<b>Monitoring Station</b>	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	08.12.14	14.01.15	05.02.15	9.3.2015	
<b>Colour(Hazen)</b>	1	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	2	4	3	2	<b>5</b>
<b>pH</b>	8.45	8.41	8.41	8.36	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	88	84	72	72	<b>200</b>
<b>Total Hardness(mg/L)</b>	144	136	132	124	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	32	30	30	28	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	254	232	232	218	<b>500</b>
<b>Calcium(mg/L)</b>	33.6	32	32	28.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	47	48	45	49	<b>200</b>
<b>Nitrate(mg/L)</b>	5.32	4.87	5.76	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.18	0.21	0.24	0.26	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.04	0.04	0.03	<0.02	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 115 Drinking Water Quality Data**

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Outlet of water treatment plant Anand Vihar	Outlet of water treatment plant Anand Vihar	Outlet of water treatment plant Anand Vihar	Outlet of water treatment plant Anand Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.04.14	04.07.14	13.10.2014	01.01.15	
<b>Colour(Hazen)</b>	2	4	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	2	4	3	4	<b>5</b>
<b>pH</b>	7.61	7.68	7.57	7.64	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	52	56	40	48	<b>200</b>
<b>Total Hardness(mg/L)</b>	84	92	76	88	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	20	16	20	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	0.18	0.14	0.14	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	188	158	132	152	<b>500</b>
<b>Calcium(mg/L)</b>	25.6	20.8	17.6	20.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	0.23	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	29	31	26	28	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	4.43	3.54	3.54	<b>45</b>
<b>Fluoride(mg/L)</b>	0.12	0.11	0.09	0.13	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.003	<0.001	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	0.016	<0.01	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	nil		<0.001	<0.001	<b>0.001</b>

**Table : 116 Drinking Water Quality Data**

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Inlet water treatment plant anand Vihar	Inlet water treatment plant anand Vihar	Inlet water treatment plant anand Vihar	Inlet water treatment plant anand Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.04.14	04.07.14	13.10.2014	01.01.15	
<b>Colour(Hazen)</b>	8	7	7	9	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	14	13	11	13	<b>5</b>
<b>pH</b>	7.57	7.65	7.53	7.54	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	52	48	52	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	88	84	96	92	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	26	20	20	20	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	188	146	164	160	<b>500</b>
<b>Calcium(mg/L)</b>	25.6	19.2	22.4	22.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	0.23	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	28	28	31	29	<b>200</b>
<b>Nitrate(mg/L)</b>	2.66	4.87	3.99	3.54	<b>45</b>
<b>Fluoride(mg/L)</b>	0.18	0.13	0.25	0.12	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.003	<0.001	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	0.016	0.03	0.03	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	nil	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 117 Drinking Water Quality Data**

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.04.14	10.5.14	2.6.2014	04.07.14	
<b>Colour(Hazen)</b>	3	6	2	6	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	7	3	7	<b>5</b>
<b>pH</b>	8.38	8.27	8.32	8.32	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	52	52	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	72	84	80	84	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	18	20	18	18	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	126	140	142	146	<b>500</b>
<b>Calcium(mg/L)</b>	16	20.8	20.8	20.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	23	27	29	32	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	3.1	2.66	3.98	<b>45</b>
<b>Fluoride(mg/L)</b>	0.1	0.15	0.13	0.12	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	nil	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality Data

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	02.08.14	08.09.14	13.10.2014	3.11.2014	
<b>Colour(Hazen)</b>	6	6	2	6	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	8	8	3	9	<b>5</b>
<b>pH</b>	8.36	8.27	8.34	8.38	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	60	48	44	56	<b>200</b>
<b>Total Hardness(mg/L)</b>	92	76	68	92	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	18	14	22	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	158	138	118	166	<b>500</b>
<b>Calcium(mg/L)</b>	22.4	19.2	16	22.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	27	29	23	30	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	3.54	3.1	4.87	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.12	0.09	0.11	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.028	0.09	0.03	0.03	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality Data

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	Tap water at Corporate Office Jagruti Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	01.12.14	01.01.15	02.02.15	7.3.2015	
<b>Colour(Hazen)</b>	2	2	3	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	2	3	4	4	<b>5</b>
<b>pH</b>	8.32	8.25	8.28	8.25	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	36	44	48	48	<b>200</b>
<b>Total Hardness(mg/L)</b>	60	72	76	76	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	12	16	18	16	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	110	122	136	128	<b>500</b>
<b>Calcium(mg/L)</b>	14.4	16	17.6	17.6	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	19	23	27	28	<b>200</b>
<b>Nitrate(mg/L)</b>	3.1	2.66	4.43	3.99	<b>45</b>
<b>Fluoride(mg/L)</b>	0.08	0.1	0.12	0.1	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.02	0.03	0.03	0.09	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 118 Drinking Water Quality Data**

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	07.04.14	10.5.14	2.6.2014	04.07.14	
<b>Colour(Hazen)</b>	3	5	3	5	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	6	4	6	<b>5</b>
<b>pH</b>	8.16	8.1	8.09	8.17	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	48	48	48	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	80	80	76	80	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	16	18	16	18	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	138	136	136	142	<b>500</b>
<b>Calcium(mg/L)</b>	19.2	19.2	17.6	19.2	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	28	26	28	28	<b>200</b>
<b>Nitrate(mg/L)</b>	2.66	2.66	1.77	3.54	<b>45</b>
<b>Fluoride(mg/L)</b>	0.11	0.14	0.11	0.13	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.0005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.01</b>
<b>Zinc(mg/L)</b>	<0.010	<0.010	<0.010	<0.010	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.01	<0.01	<0.01	<0.01	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	<0.001	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	nil	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality Data

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at DAV School Anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	02.08.14	08.09.14	13.10.2014	3.11.2014	
<b>Colour(Hazen)</b>	4	5	2	3	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	6	7	4	6	<b>5</b>
<b>pH</b>	8.21	7.98	8.12	8.23	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	56	48	52	52	<b>200</b>
<b>Total Hardness(mg/L)</b>	88	80	84	84	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	22	18	18	18	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	156	144	144	148	<b>500</b>
<b>Calcium(mg/L)</b>	20.8	19.2	19.2	20.8	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	29	<b>0.1</b>
<b>Sulphate(mg/L)</b>	26	28	27	4.43	<b>200</b>
<b>Nitrate(mg/L)</b>	4.87	3.54	3.54	0.22	<b>45</b>
<b>Fluoride(mg/L)</b>	0.21	0.12	0.1	0.12	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	<0.0005	<0.0005	<0.0005	0.03	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.097	<0.01	0.05	0.05	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

### Drinking Water Quality Data

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ	
<b>Monitoring Station</b>	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	Tap water at DAV School anand Vihar	<b>Indian Drinking Standards (IS-10500)</b>
<b>Dt. of sampling</b>	01.12.14	01.01.15	02.02.15	7.3.2015	
<b>Colour(Hazen)</b>	3	2	2	2	<b>5</b>
<b>Odour</b>	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	<b>Unobjectionable</b>
<b>Taste</b>	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Turbidity(NTU)</b>	4	3	3		<b>5</b>
<b>pH</b>	8.14	8.12	8.12	3	<b>6.5-8.5</b>
<b>Total Alkalinity(mg/L)</b>	52	48	40	8.07	<b>200</b>
<b>Total Hardness(mg/L)</b>	84	76	68	36	<b>300</b>
<b>Iron(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.3</b>
<b>Chloride(mg/L)</b>	18	18	14	14	<b>250</b>
<b>Residual Free chlorine(mg/L)</b>	nil	nil	nil	nil	<b>0.2</b>
<b>Total Dissolve Solid(mg/L)</b>	152	134	116	108	<b>500</b>
<b>Calcium(mg/L)</b>	19.2	17.6	16	14.4	<b>75</b>
<b>Copper(mg/L)</b>	<0.03	<0.03	<0.03	<0.03	<b>0.05</b>
<b>Manganese(mg/L)</b>	<0.02	<0.02	<0.02	<0.02	<b>0.1</b>
<b>Sulphate(mg/L)</b>	28	25	22	19	<b>200</b>
<b>Nitrate(mg/L)</b>	4.43	3.1	3.54	0.09	<b>45</b>
<b>Fluoride(mg/L)</b>	0.12	0.11	0.11	0.23	<b>1.5</b>
<b>Selenium(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.01</b>
<b>Arsenic(mg/L)</b>	<0.002	<0.002	<0.002	<0.002	<b>0.05</b>
<b>Lead(mg/L)</b>	<0.005	<0.005	<0.005	<0.005	<b>0.05</b>
<b>Cadmium(mg/L)</b>	0.03	0.03	0.03	<0.0005	<b>0.01</b>
<b>Zinc(mg/L)</b>	0.05	0.02	0.03	0.06	<b>5</b>
<b>Hexavalent Chromium(mg/L)</b>	<0.06	<0.06	<0.06	<0.06	<b>0.05</b>
<b>Boron(mg/L)</b>	<0.20	<0.20	<0.20	<0.20	<b>1</b>
<b>Faecal col.as MPN/ 100ml</b>	Nil	Nil	Nil	Nil	<b>Nil</b>
<b>Phenolics(mg/L)</b>	<0.001	<0.001	<0.001	<0.001	<b>0.001</b>

**Table : 119 Effluent Quality Data**

**Project :Samleswari OCP**

**Monitoring Station : DETP/STP Outlet**

<b>Date of Sampling</b>	<b>pH</b>	<b>TSS</b>	<b>BOD</b>
04-Apr-14	7.28	12	6
18-Apr-14	7.35	14	4
08-May-14	5.85	20	6
26-May-14	7.2	36	4
07-Jun-14	No Discharge		
19-Jun-14	No Discharge		
08-Jul-14	No Discharge		
17-Jul-14	No Discharge		
08-Aug-14	6.95	20	4
28-Oct-14	7.35	14	5
08-Nov-14	7.4	16	6
24-Nov-14	7.37	14	4
06-Dec-14	7.35	10	6

*All units are in mg/L except pH*

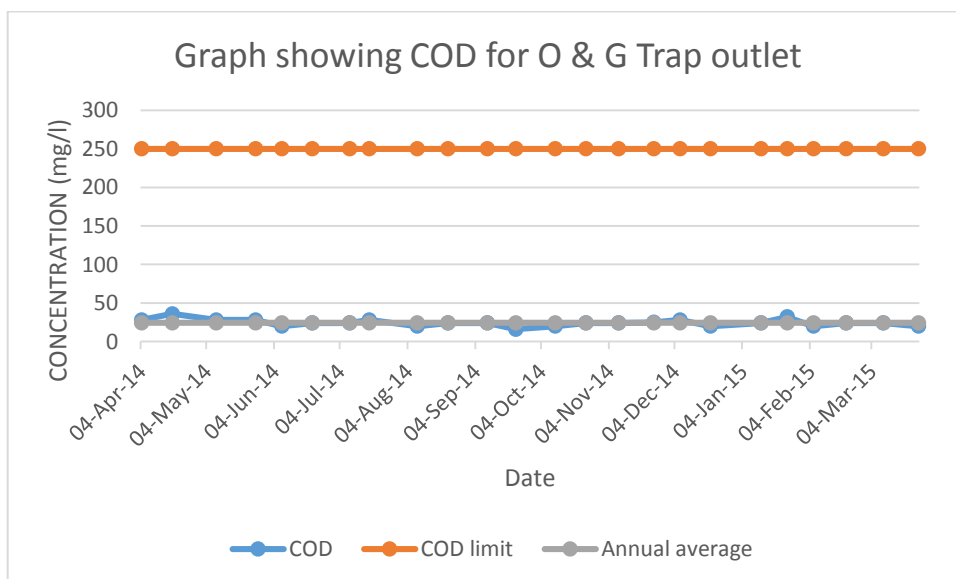
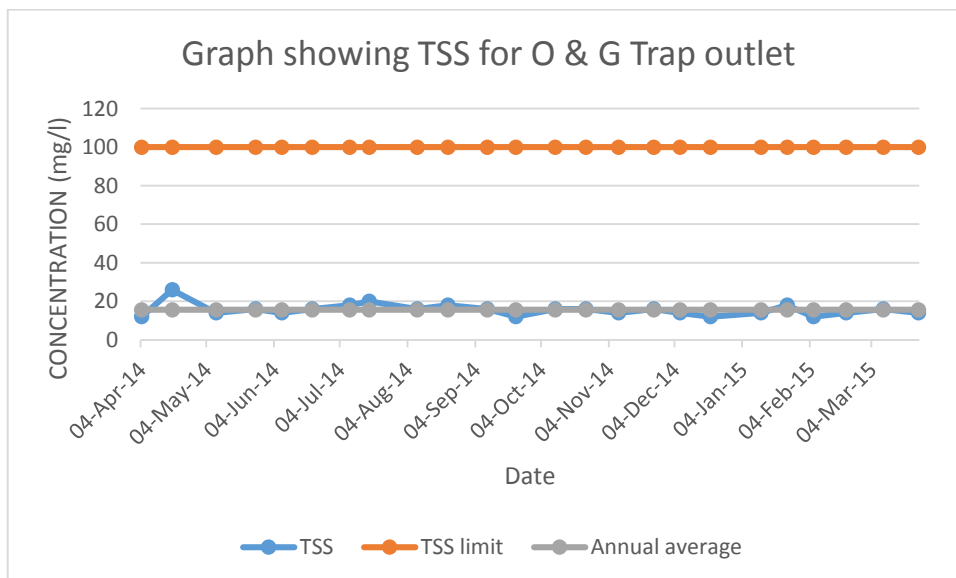
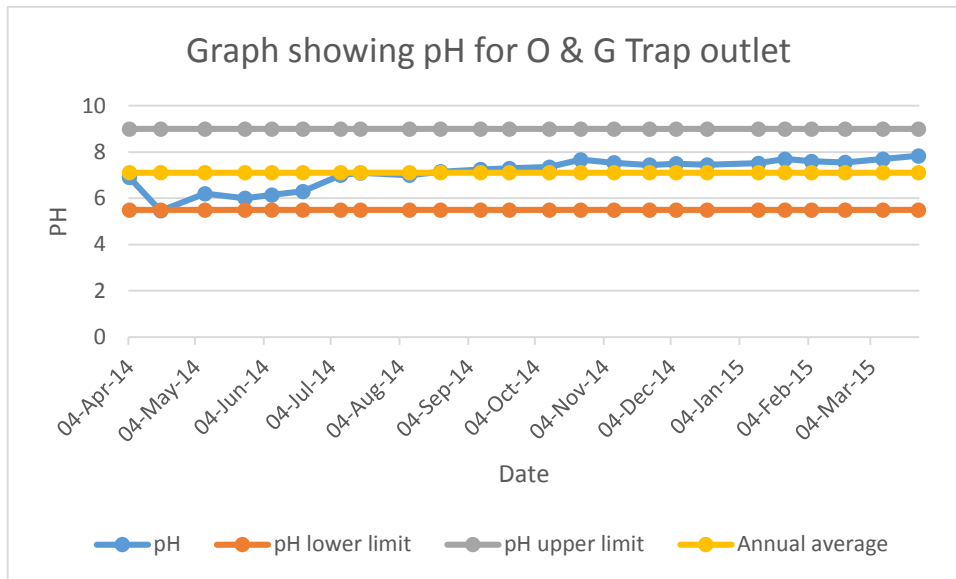
**Table : 120 Effluent Quality Data**

**Project :Samleswari OCP**

**Monitoring Station : O & G Trap Outlet**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
04-Apr-14	6.9	<2.0	12	28
18-Apr-14	5.46	<2.0	26	36
08-May-14	6.2	<2.0	14	28
26-May-14	6	<2.0	16	28
07-Jun-14	6.15	<2.0	14	20
21-Jun-14	6.3	<2.0	16	24
08-Jul-14	7	<2.0	18	24
17-Jul-14	7.1	<2.0	20	28
08-Aug-14	7	<2.0	16	20
22-Aug-14	7.15	<2.0	18	24
09-Sep-14	7.25	<2.0	16	24
22-Sep-14	7.3	<2.0	12	16
10-Oct-14	7.35	<2.0	16	20
24-Oct-14	7.67	<2.0	16	24
08-Nov-14	7.54	<2.0	14	24
24-Nov-14	7.44	<2.0	16	25
06-Dec-14	7.5	<2.0	14	28
20-Dec-14	7.45	<2.0	12	20
12-Jan-15	7.52	<2.0	14	24
24-Jan-15	7.7	<2.0	18	32
05-Feb-15	7.6	<2.0	12	20
20-Feb-15	7.55	<2.0	14	24
09-Mar-15	7.7	<2.0	16	24
25-Mar-15	7.84	<2.0	14	20

*All units are in mg/L except pH*



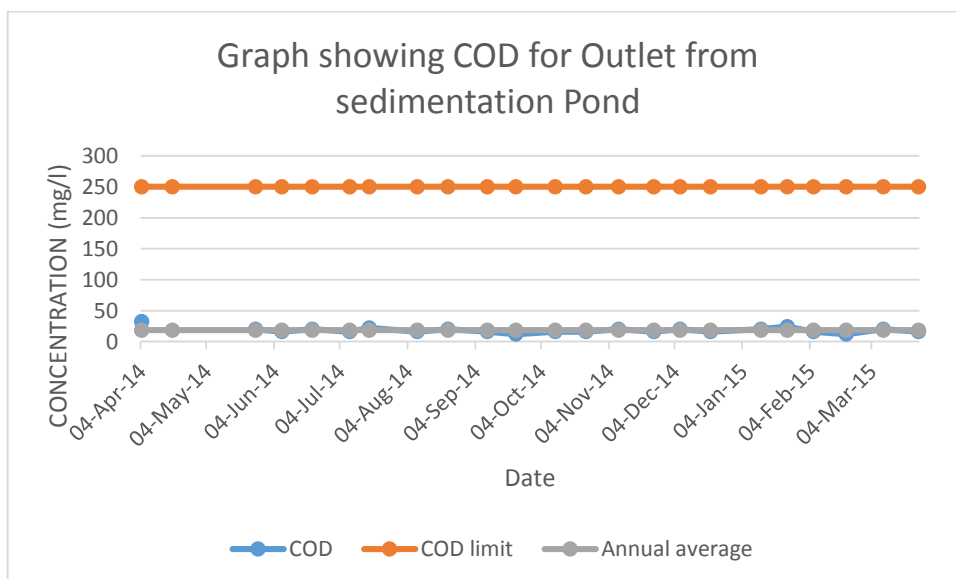
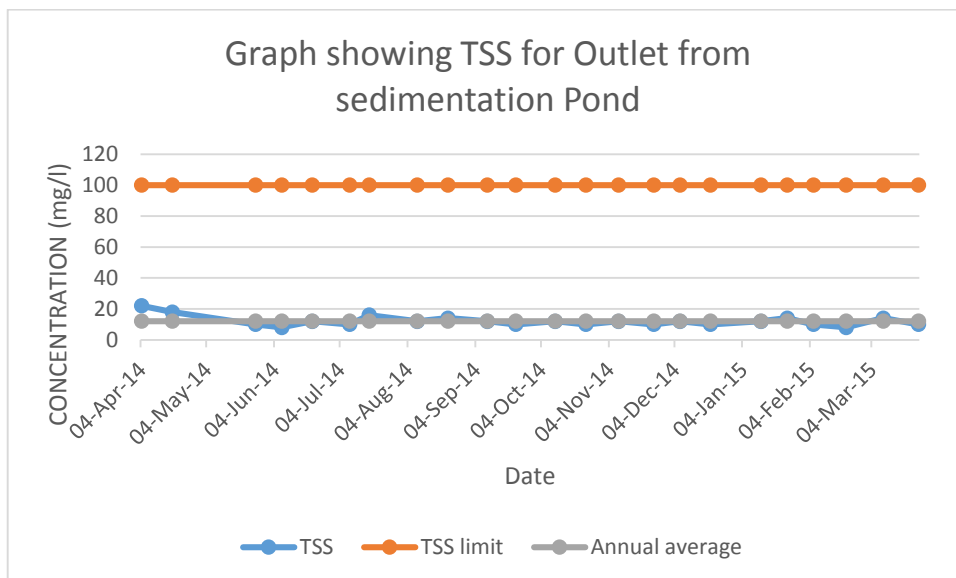
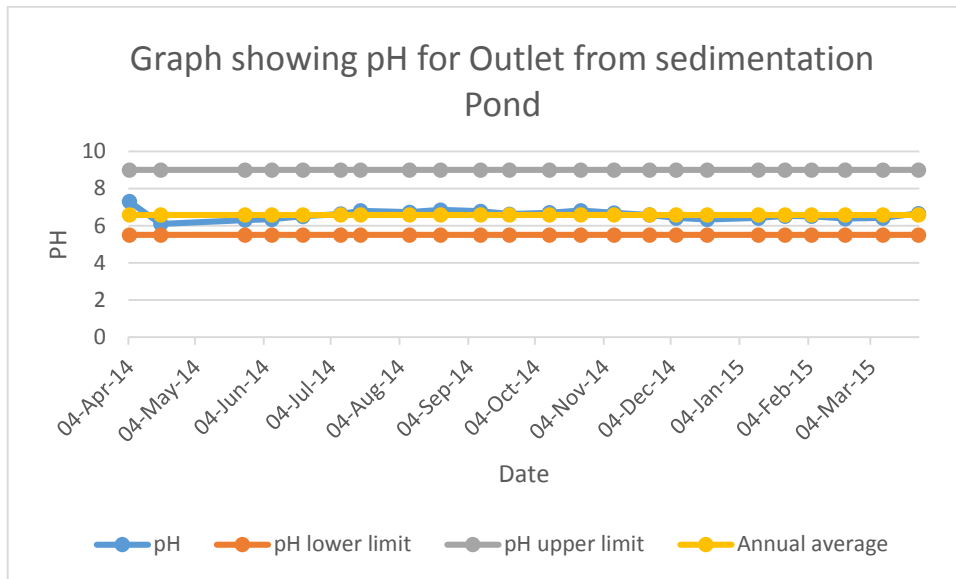
### Table : 121 Effluent Quality Data

Project :Samleswari OCP

Monitoring Station : Outlet from Sedimentation Tank

Date of Sampling	pH	Oil & Grease	TSS	COD
04-Apr-14	7.3	<2.0	22	32
18-Apr-14	6.1	<2.0	18	
26-May-14	6.3	<2.0	10	20
07-Jun-14	6.35	<2.0	8	16
21-Jun-14	6.5	<2.0	12	20
08-Jul-14	6.63	<2.0	10	16
17-Jul-14	6.8	<2.0	16	22
08-Aug-14	6.73	<2.0	12	16
22-Aug-14	6.85	<2.0	14	20
09-Sep-14	6.78	<2.0	12	16
22-Sep-14	6.62	<2.0	10	12
10-Oct-14	6.7	<2.0	12	16
24-Oct-14	6.81	<2.0	10	16
08-Nov-14	6.69	<2.0	12	20
24-Nov-14	6.58	<2.0	10	16
06-Dec-14	6.42	<2.0	12	20
20-Dec-14	6.34	<2.0	10	16
12-Jan-15	6.42	<2.0	12	20
24-Jan-15	6.52	<2.0	14	24
05-Feb-15	6.51	<2.0	10	16
20-Feb-15	6.38	<2.0	8	12
09-Mar-15	6.42	<2.0	14	20
25-Mar-15	6.66	<2.0	10	16

*All units are in mg/L except pH*



**Table : 122 Effluent Quality Data****Project :Samleswari OCP****Monitoring Station : Mine Sump Water**

<b>Date of Sampling</b>	<b>Sampling Station</b>	<b>pH</b>
04-Apr-14	Mine sump Water	7.47
08-Jul-14	Mine sump Water	7.57
08-Jul-14	Mine sump Water	7.57
10-Oct-14	Mine sump Water	7.54
12-Jan-15	Mine Sump Water	7.66

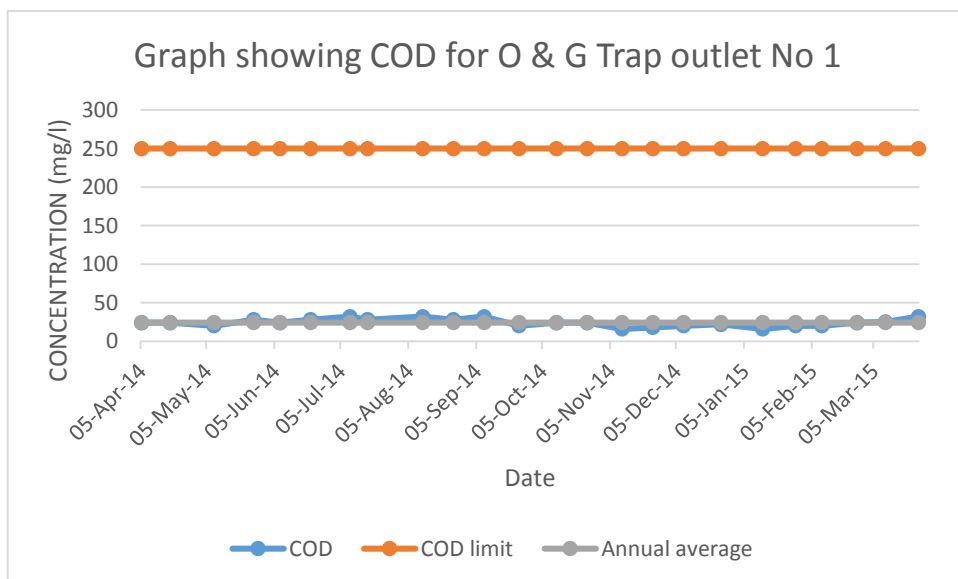
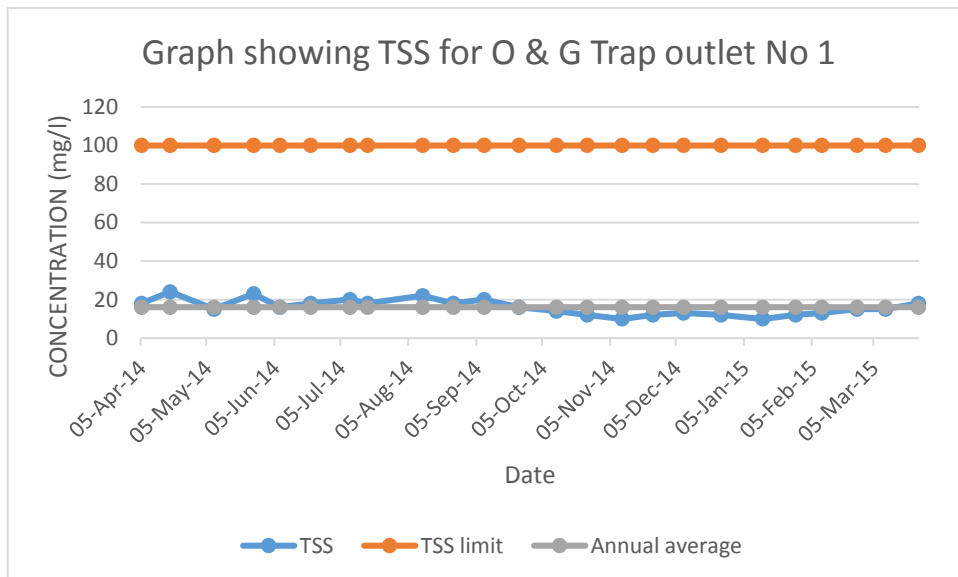
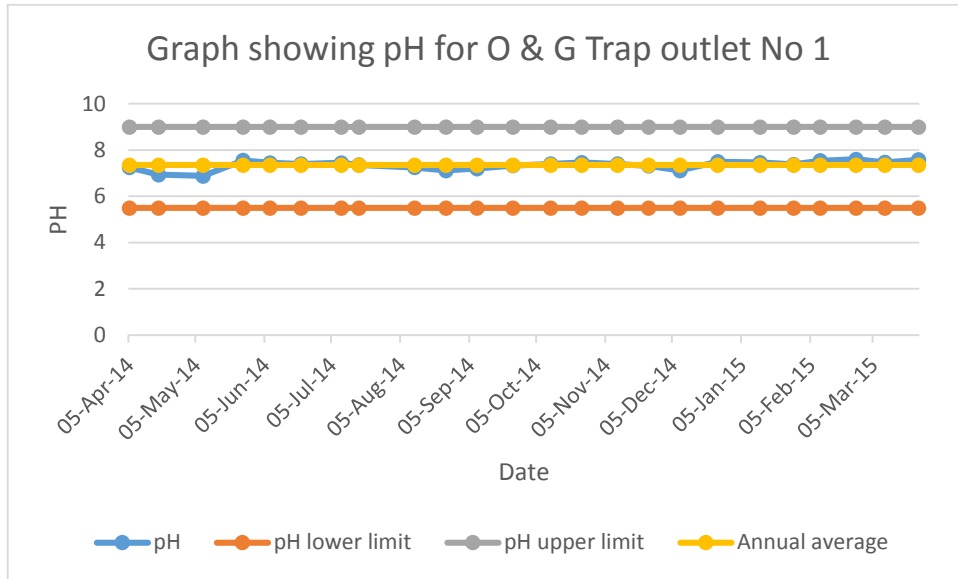
### Table : 123 Effluent Quality Data

Project :Lakhanpur OCP

Monitoring Station : O & G Trap Outlet No-1

Date of Sampling	pH	Oil & Grease	TSS	COD
05-Apr-14	7.3	<2.0	18	24
18-Apr-14	6.9	<2.0	24	24
08-May-14	6.9	<2.0	15	20
26-May-14	7.6	<2.0	23	28
07-Jun-14	7.5	<2.0	16	24
21-Jun-14	7.4	<2.0	18	28
09-Jul-14	7.5	<2.0	20	32
17-Jul-14	7.4	<2.0	18	28
11-Aug-14	7.3	<2.0	22	32
25-Aug-14	7.1	<2.0	18	28
08-Sep-14	7.2	<2.0	20	32
24-Sep-14	7.3	<2.0	16	20
11-Oct-14	7.4	<2.0	14	24
25-Oct-14	7.5	<2.0	12	24
10-Nov-14	7.4	<2.0	10	16
24-Nov-14	7.3	<2.0	12	18
08-Dec-14	7.1	<2.0	13	20
25-Dec-14	7.5	<2.0	12	22
13-Jan-15	7.5	<2.0	10	16
28-Jan-15	7.4	<2.0	12	20
09-Feb-15	7.5	<2.0	13	20
25-Feb-15	7.6	<2.0	15	24
10-Mar-15	7.5	<2.0	15	25
25-Mar-15	7.6	<2.0	18	32

All values are in mg/L except pH



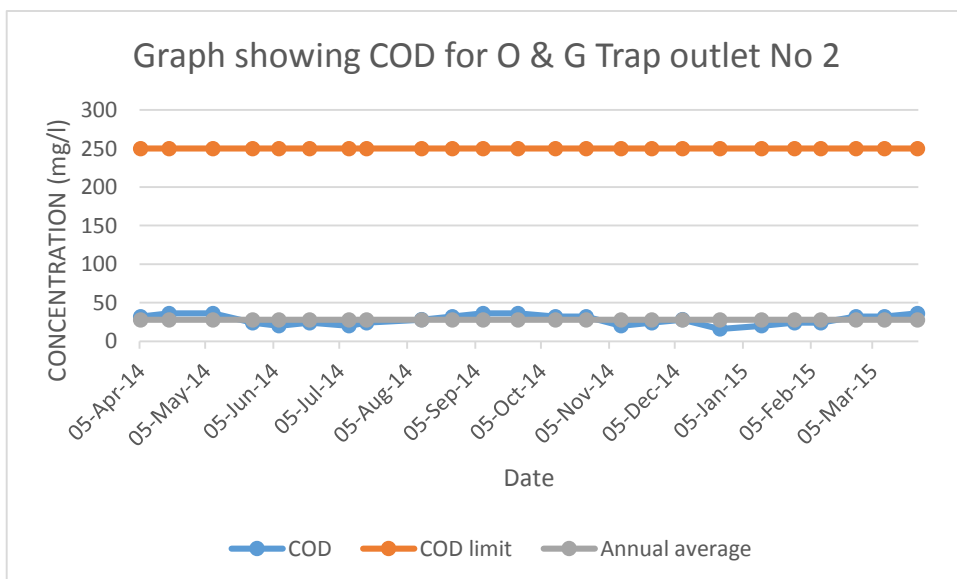
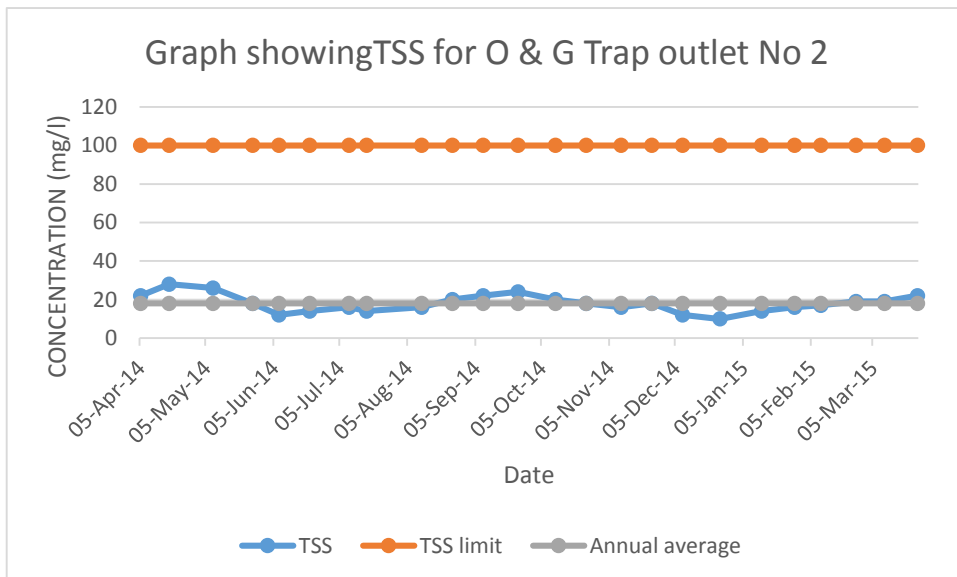
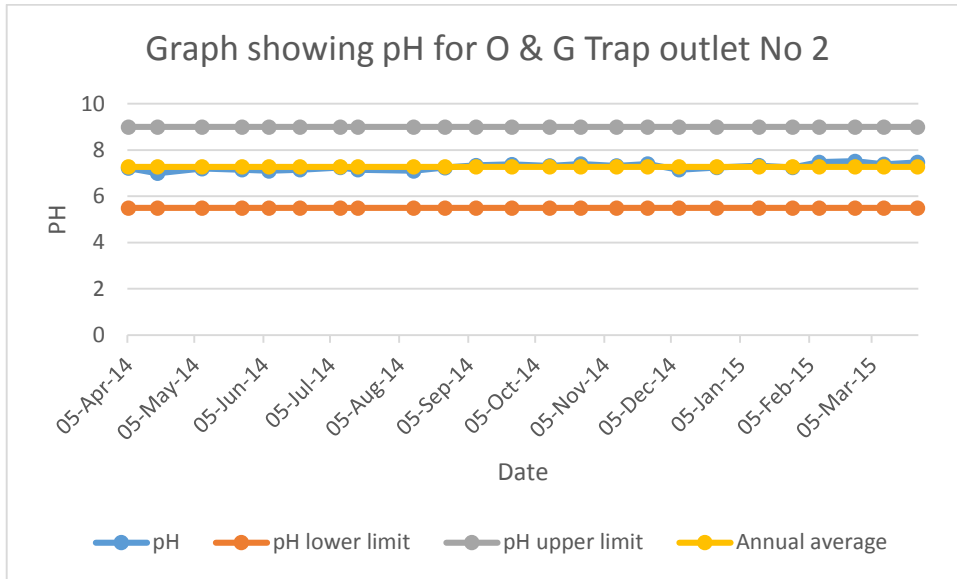
**Table : 124 Effluent Quality Data**

**Project :Lakhanpur OCP**

**Monitoring Station : O & G Trap Outlet No-2**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
05-Apr-14	7.2	<2.0	22	32
19-Apr-14	7	<2.0	28	36
08-May-14	7.2	<2.0	26	36
26-May-14	7.2	<2.0	18	24
07-Jun-14	7.1	<2.0	12	20
21-Jun-14	7.2	<2.0	14	24
09-Jul-14	7.3	<2.0	16	20
17-Jul-14	7.2	<2.0	14	24
11-Aug-14	7.1	<2.0	16	28
25-Aug-14	7.2	<2.0	20	32
08-Sep-14	7.3	<2.0	22	36
24-Sep-14	7.4	<2.0	24	36
11-Oct-14	7.3	<2.0	20	32
25-Oct-14	7.4	<2.0	18	32
10-Nov-14	7.3	<2.0	16	20
24-Nov-14	7.4	<2.0	18	24
08-Dec-14	7.2	<2.0	12	28
25-Dec-14	7.3	<2.0	10	16
13-Jan-15	7.3	<2.0	14	20
28-Jan-15	7.3	<2.0	16	24
09-Feb-15	7.5	<2.0	17	24
25-Feb-15	7.5	<2.0	19	32
10-Mar-15	7.4	<2.0	19	32
25-Mar-15	7.5	<2.0	22	36

*All values are in mg/L except pH*



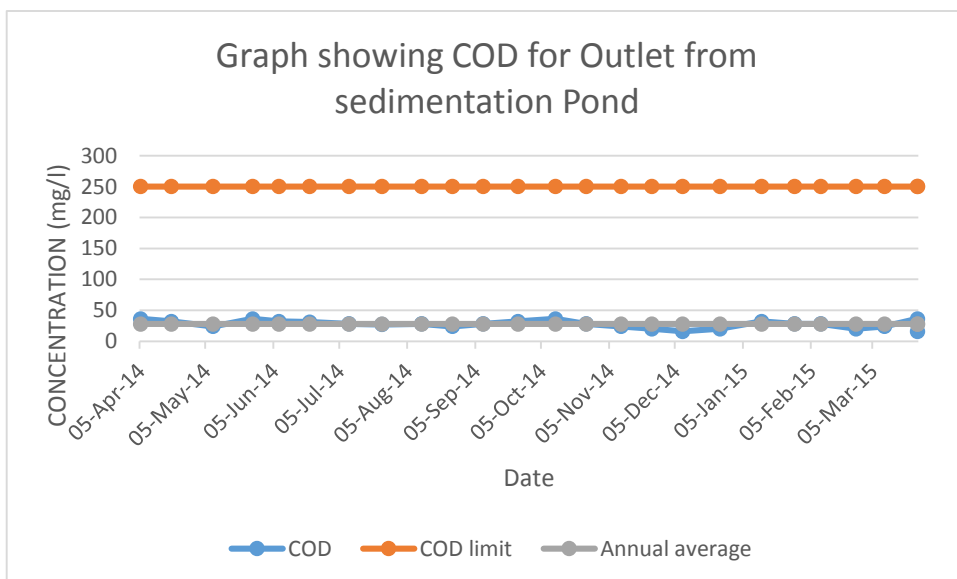
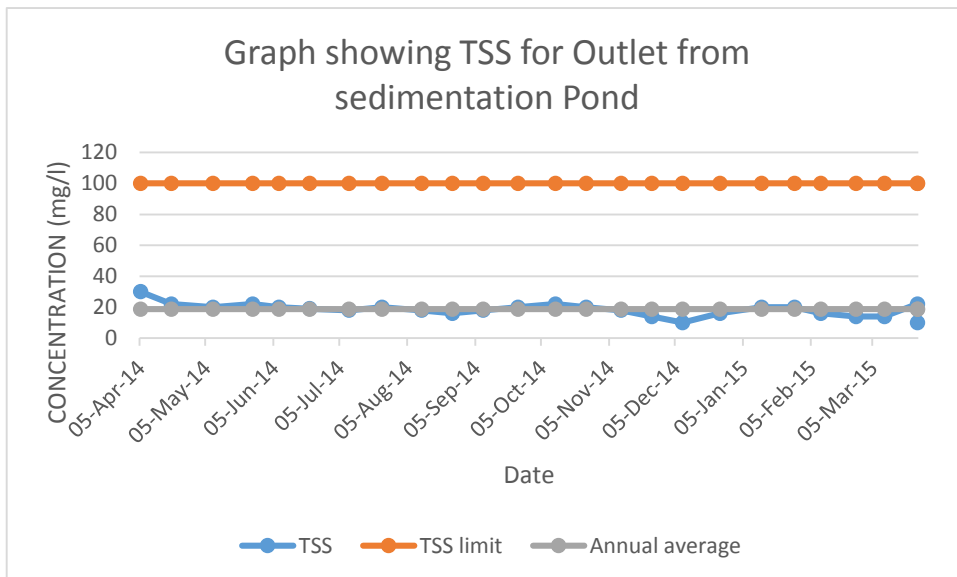
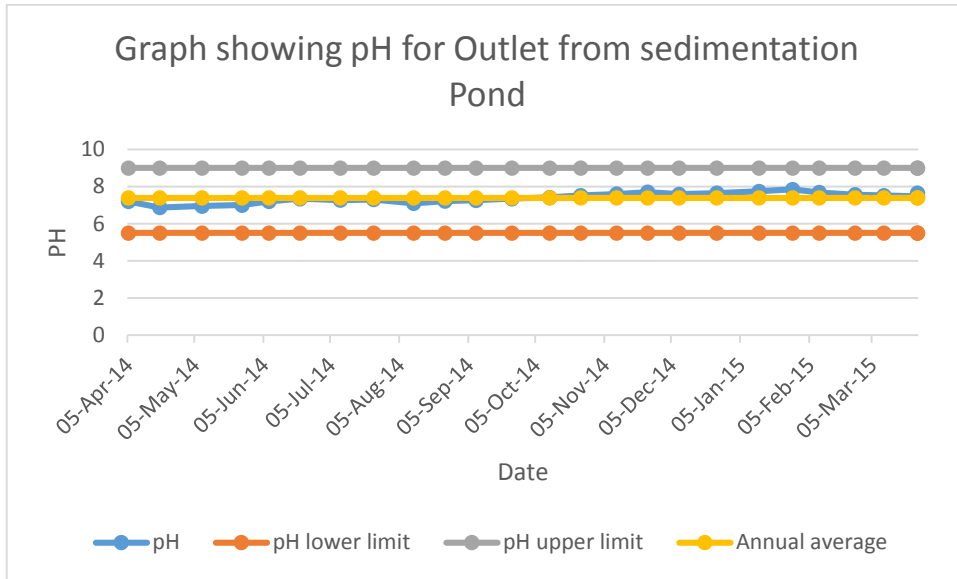
### Table : 125 Effluent Quality Data

Project :Lakhanpur OCP

Monitoring Station : Outlet from Sedimentation Tank

Date of Sampling	pH	Oil & Grease	TSS	COD
05-Apr-14	7.2	<2.0	30	36
19-Apr-14	6.9	<2.0	22	32
08-May-14	7	<2.0	20	24
26-May-14	7	<2.0	22	36
07-Jun-14	7.2	<2.0	20	32
21-Jun-14	7.4	<2.0	19	31
09-Jul-14	7.3	<2.0	18	28
24-Jul-14	7.3	<2.0	20	27
11-Aug-14	7.1	<2.0	18	28
25-Aug-14	7.2	<2.0	16	24
08-Sep-14	7.3	<2.0	18	28
24-Sep-14	7.4	<2.0	20	32
11-Oct-14	7.4	<2.0	22	36
25-Oct-14	7.5	<2.0	20	28
10-Nov-14	7.6	<2.0	18	24
24-Nov-14	7.7	<2.0	14	20
08-Dec-14	7.6	<2.0	10	16
25-Dec-14	7.7	<2.0	16	20
13-Jan-15	7.7	<2.0	20	32
28-Jan-15	7.9	<2.0	20	28
09-Feb-15	7.7	<2.0	16	28
25-Feb-15	7.6	<2.0	14	20
10-Mar-15	7.5	<2.0	14	24
25-Mar-15	7.7	<2.0	10	16

*All values are in mg/L except pH*



**Table : 126 Effluent Quality Data****Project :Lakhanpur OCP****Monitoring Station : Mine Sump water**

<b>Date of Sampling</b>	<b>Sampling Station</b>	<b>pH</b>
05-Apr-14	Mine sump water	7.7
09-Jul-14	Mine sump water	7.8
09-Jul-14	Mine sump water	7.8
11-Oct-14	Mine sump water	7.7
13-Jan-15	Mine Sump Water	7.8

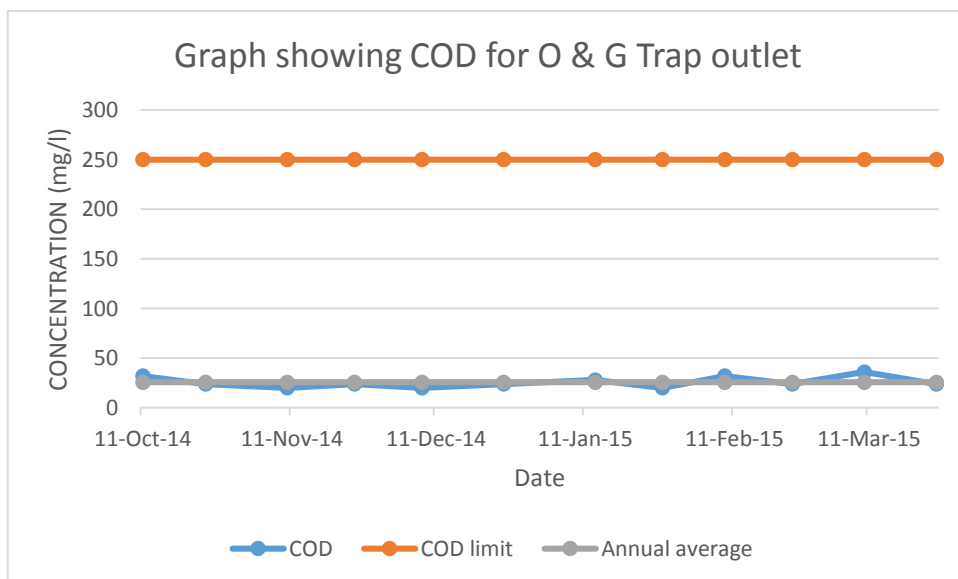
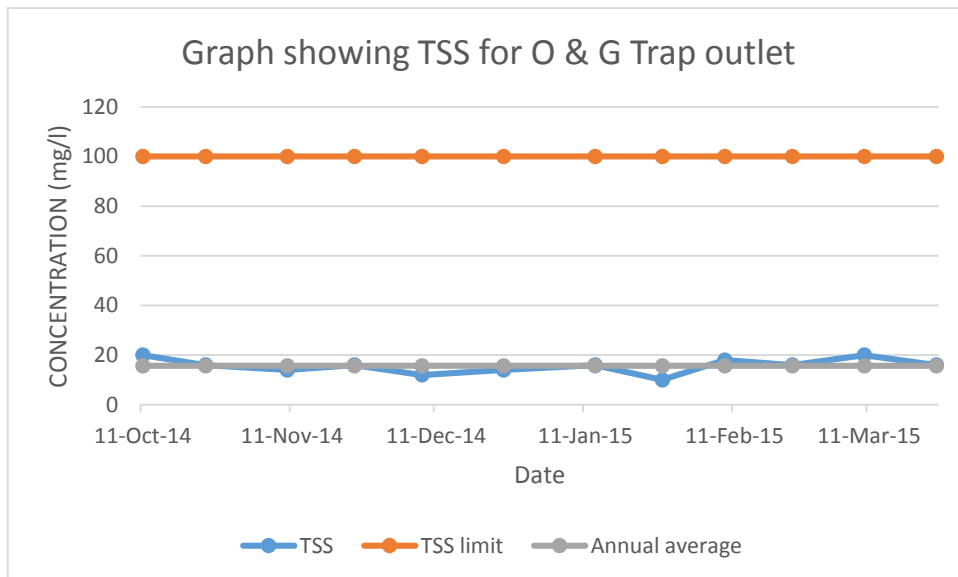
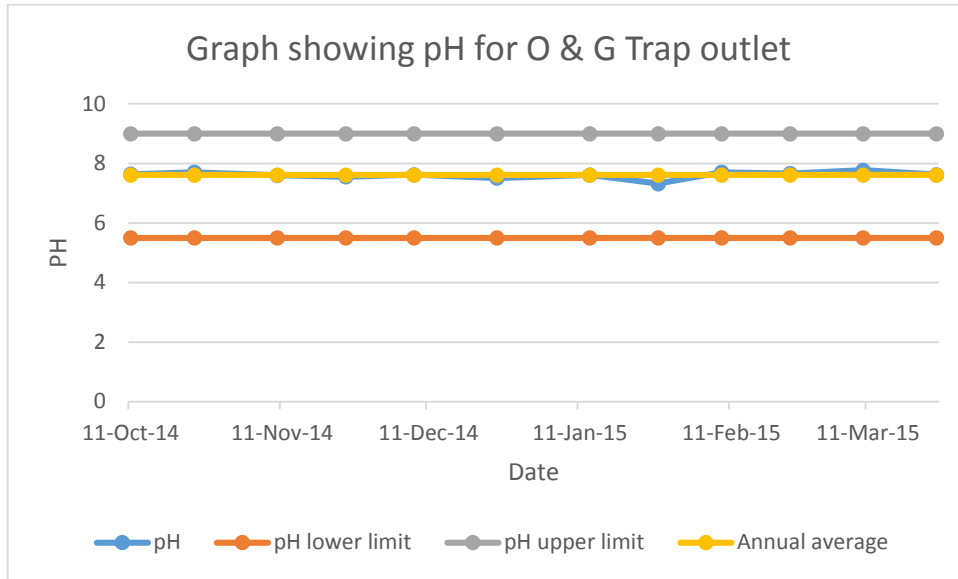
**Table : 127 Effluent Quality Data**

**Project :Lilari OCP**

**Monitoring Station : O & G Trap Outlet**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
11-Oct-14	7.6	<2.0	20	32
24-Oct-14	7.7	<2.0	16	24
10-Nov-14	7.6	<2.0	14	20
24-Nov-14	7.6	<2.0	16	24
08-Dec-14	7.6	<2.0	12	20
25-Dec-14	7.5	<2.0	14	24
13-Jan-15	7.6	<2.0	16	28
27-Jan-15	7.3	<2.0	10	20
09-Feb-15	7.7	<2.0	18	32
23-Feb-15	7.7	<2.0	16	24
10-Mar-15	7.8	<2.0	20	36
25-Mar-15	7.6	<2.0	16	24

*All values are in mg/L except pH*



**Table : 128 Effluent Quality Data****Project :Lilari OCP****Monitoring Station : Mine Sump water**

<b>Date of Sampling</b>	<b>Sampling Station</b>	<b>pH</b>
04-Apr-14	Mine sump water	7.4
08-Jul-14	Mine sump water	7.6
08-Jul-14	Mine sump water	7.6
11-Oct-14	Mine sump water	7.5
13-Jan-15	Mine Sump Water	7.7

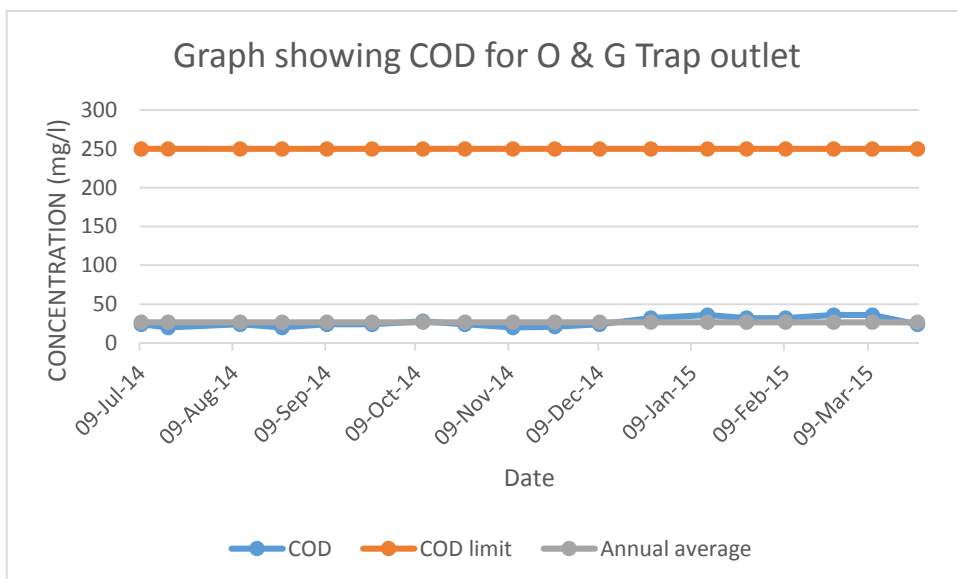
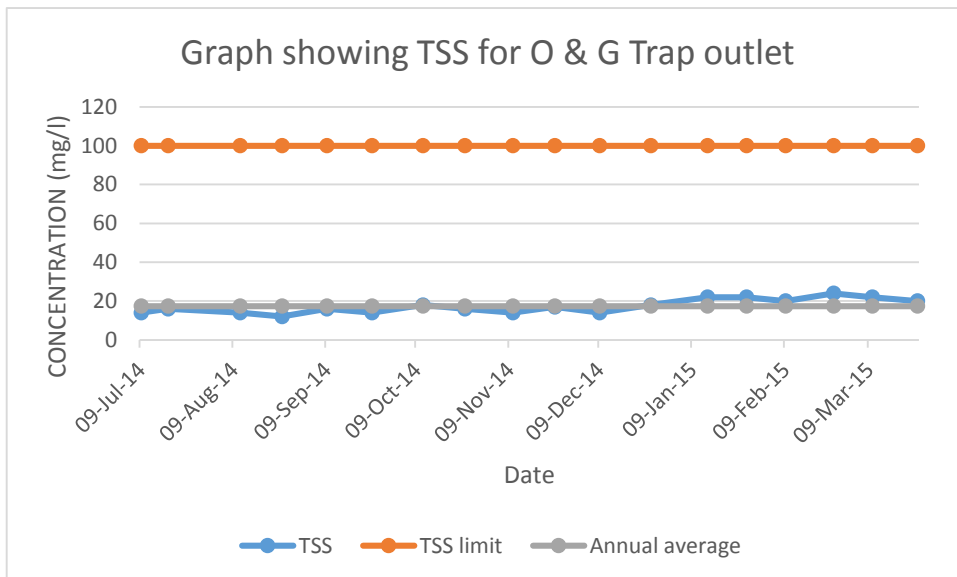
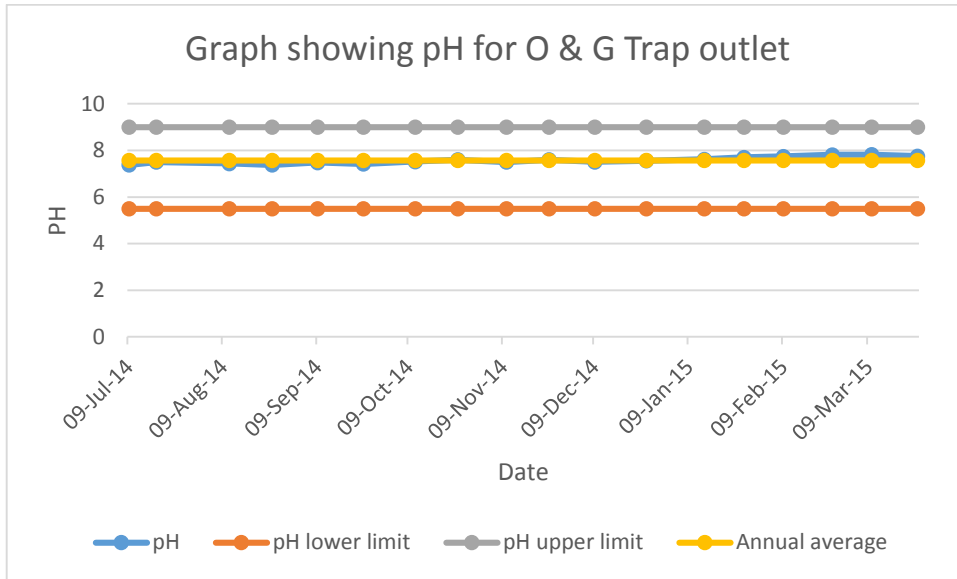
**Table : 129 Effluent Quality Data**

**Project :Belpahar OCP**

**Monitoring Station : O & G Trap Outlet**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
09-Jul-14	7.4	<2.0	14	24
18-Jul-14	7.5	<2.0	16	20
11-Aug-14	7.4	<2.0	14	24
25-Aug-14	7.4	<2.0	12	20
09-Sep-14	7.5	<2.0	16	24
24-Sep-14	7.4	<2.0	14	24
11-Oct-14	7.5	<2.0	18	28
25-Oct-14	7.6	<2.0	16	24
10-Nov-14	7.5	<2.0	14	20
24-Nov-14	7.6	<2.0	17	21
09-Dec-14	7.5	<2.0	14	24
26-Dec-14	7.6	<2.0	18	32
14-Jan-15	7.6	<2.0	22	36
27-Jan-15	7.7	<2.0	22	32
09-Feb-15	7.7	<2.0	20	32
25-Feb-15	7.8	<2.0	24	36
10-Mar-15	7.8	<2.0	22	36
25-Mar-15	7.8	<2.0	20	24

*All values are in mg/L except pH*



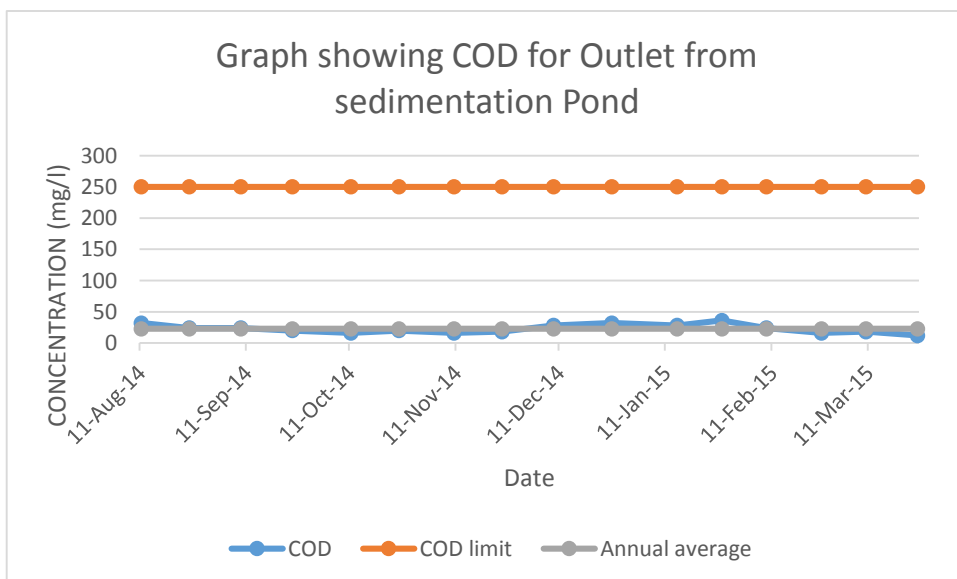
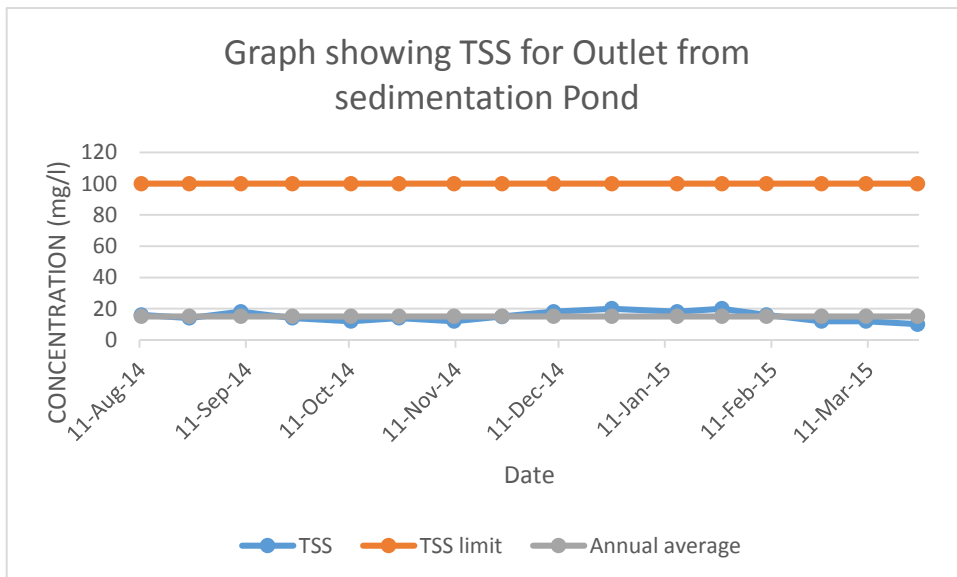
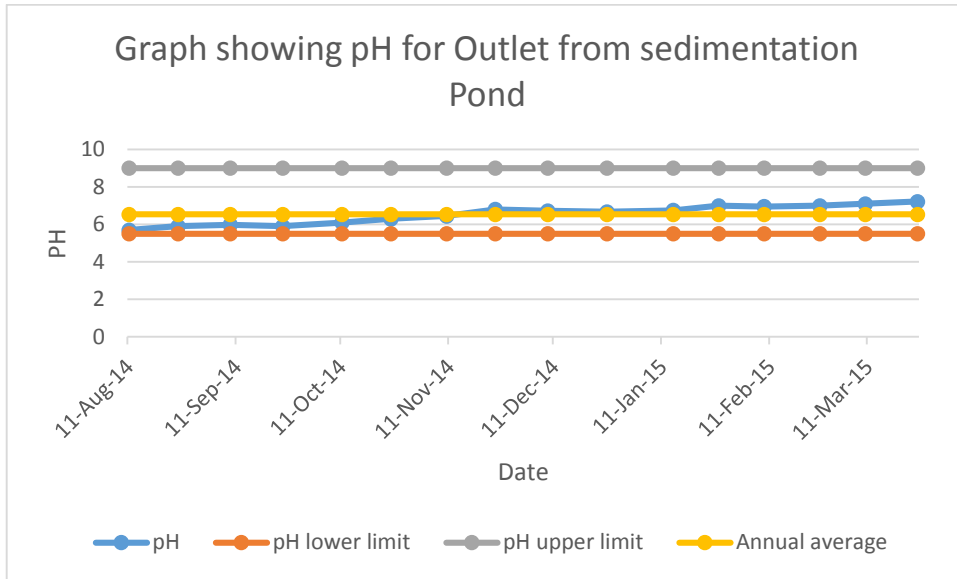
**Table : 130 Effluent Quality Data**

**Project :Belpahar OCP**

**Monitoring Station : Outlet from Sedimentation Tank**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
11-Aug-14	5.7	<2.0	16	32
25-Aug-14	5.9	<2.0	14	24
09-Sep-14	6	<2.0	18	24
24-Sep-14	5.9	<2.0	14	20
11-Oct-14	6.1	<2.0	12	16
25-Oct-14	6.3	<2.0	14	20
10-Nov-14	6.5	<2.0	12	16
24-Nov-14	6.8	<2.0	15	18
09-Dec-14	6.7	<2.0	18	28
26-Dec-14	6.7	<2.0	20	32
14-Jan-15	6.8	<2.0	18	28
27-Jan-15	7	<2.0	20	36
09-Feb-15	7	<2.0	16	24
25-Feb-15	7	<2.0	12	16
10-Mar-15	7.1	<2.0	12	18
25-Mar-15	7.2	<2.0	10	12

*All values are in mg/L except pH*



**Table : 131 Effluent Quality Data****Project :Belpahar OCP****Monitoring Station : Mine Sump Water**

<b>Date of Sampling</b>	<b>Sampling Station</b>	<b>pH</b>
05-Apr-14	Mine sump water	7.6
09-Jul-14	Mine sump water	7.6
11-Jul-14	Mine sump water	7.6
11-Oct-14	Mine sump water	7.7
14-Jan-15	Mine Sump Water	7.7

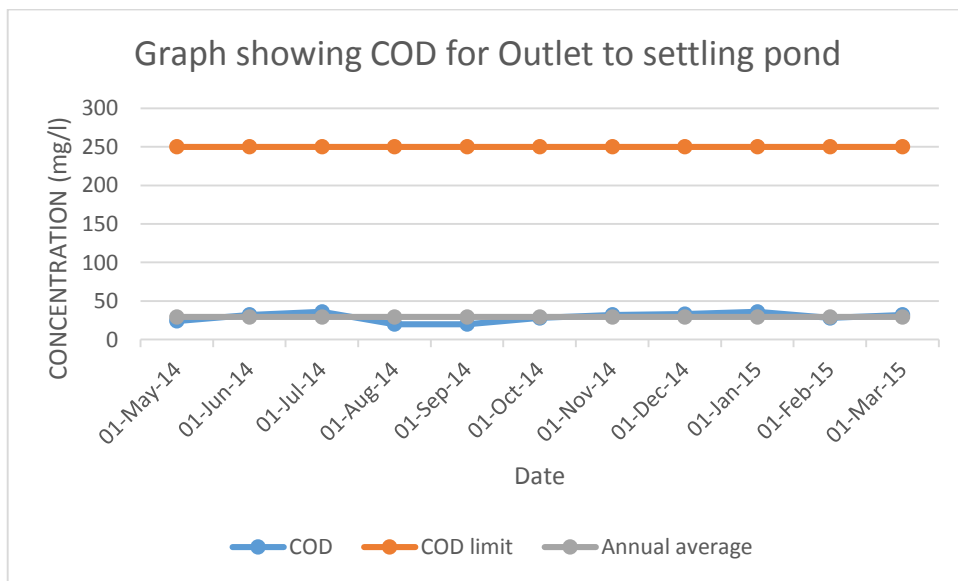
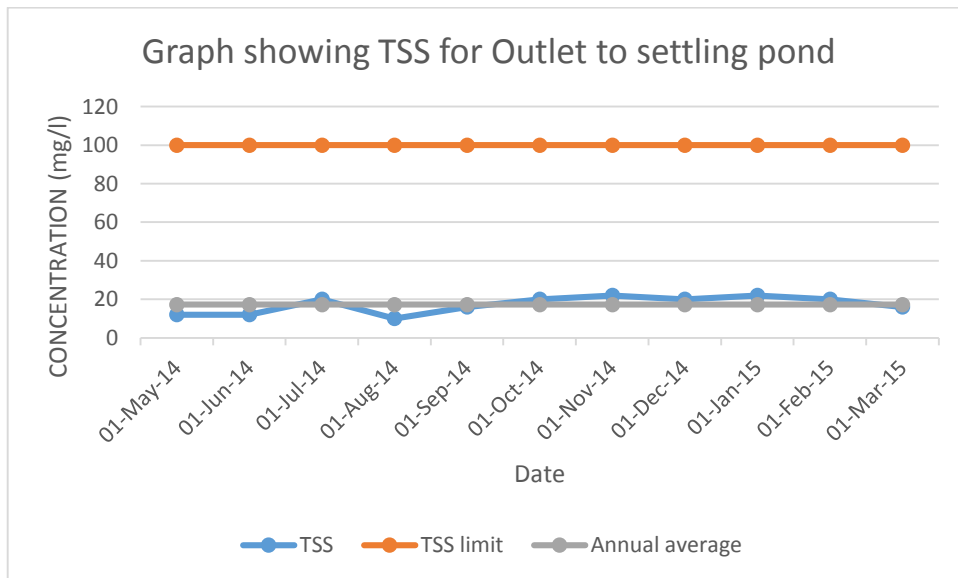
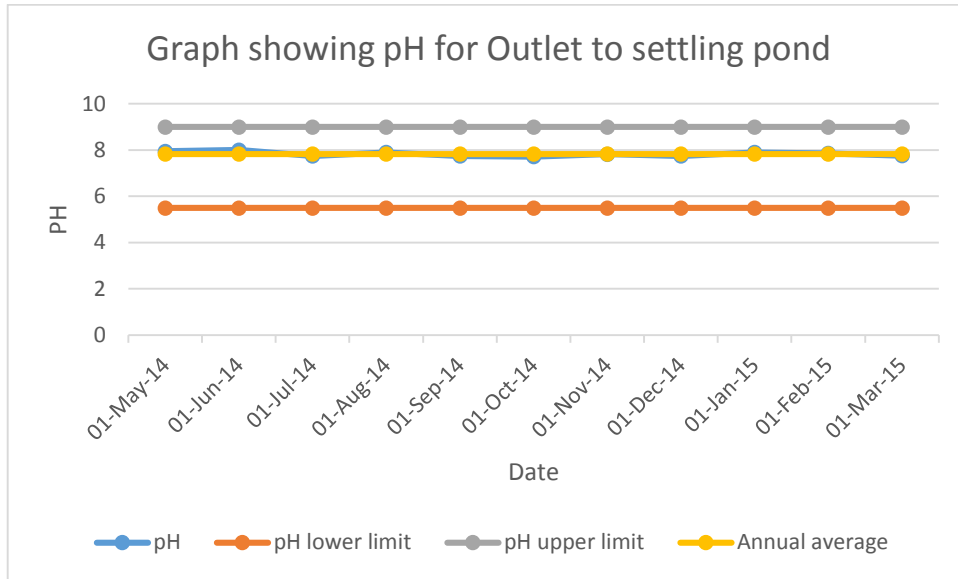
**Table : 132 Effluent Quality Water**

**Project: Kulda OCP**

**Monitoring Station:Outlet to settling pond**

Date of Sampling	pH	Oil & Grease	TSS	COD
05-May-14	8	<2.0	12	24
03-Jun-14	8	<2.0	12	32
03-Jul-14	7.8	<2.0	20	36
05-Aug-14	7.9	<2.0	10	20
02-Sep-14	7.8	<2.0	16	20
07-Oct-14	7.7	<2.0	20	28
05-Nov-14	7.8	<2.0	22	32
03-Dec-14	7.8	<2.0	20	33
01-Jan-15	7.9	<2.0	22	36
04-Feb-15	7.9	<2.0	20	28
04-Mar-15	7.8	<2.0	16	32

*All values are in mg/L except pH*



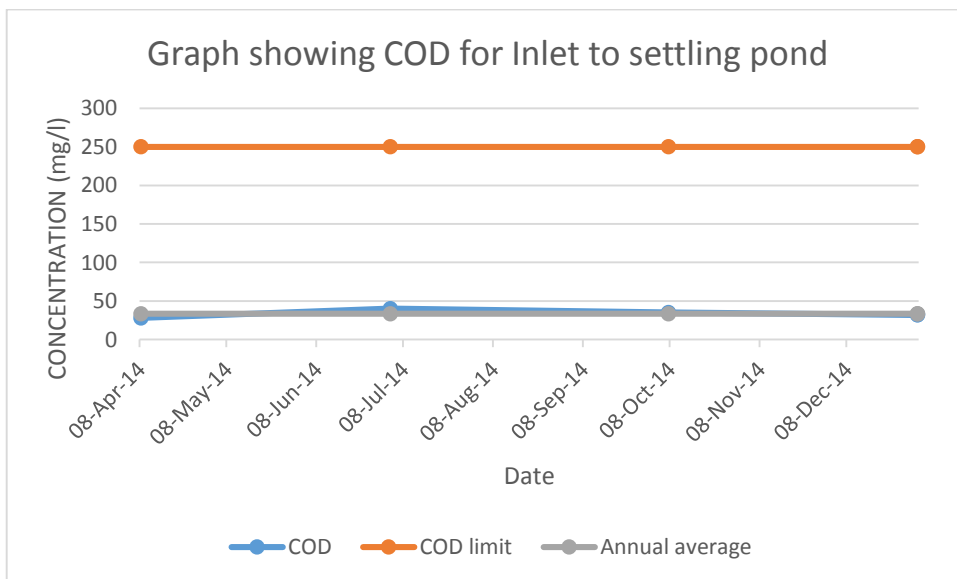
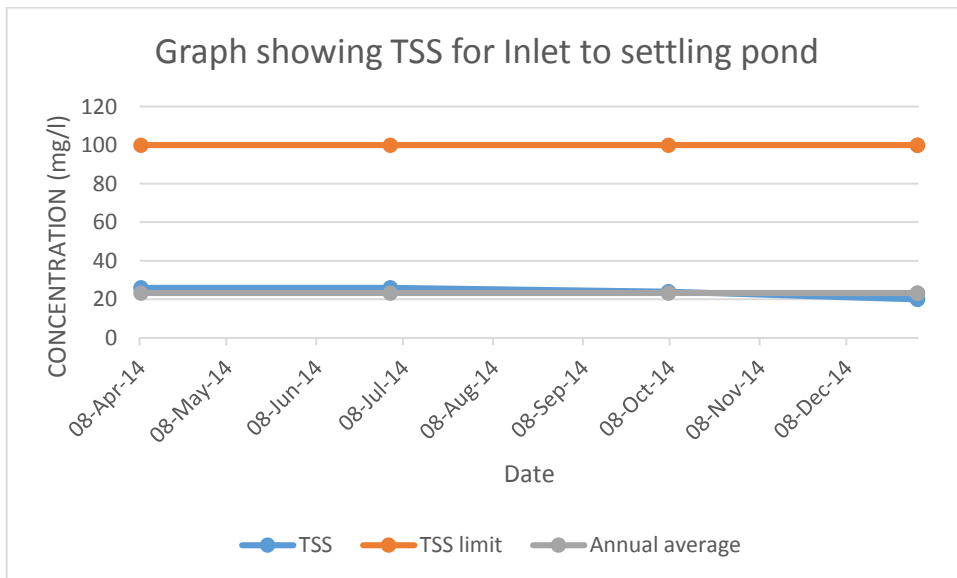
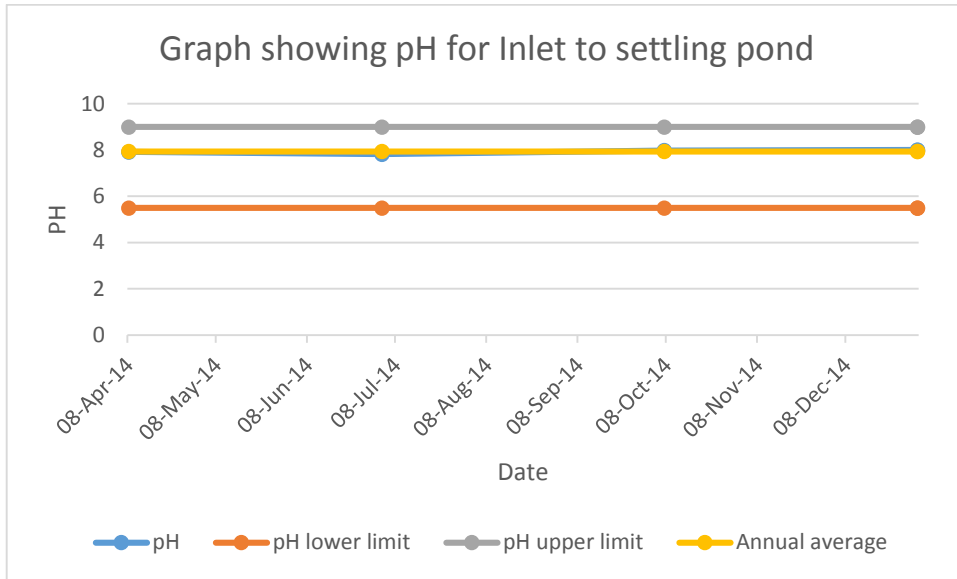
**Table : 133 Effluent Quality Water**

**Project: Kulda OCP**

**Monitoring Station : Inlet to settling pond**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
08-Apr-14	7.9	<2.0	26	28
03-Jul-14	7.8	<2.0	26	40
07-Oct-14	8	<2.0	24	35
01-Jan-15	8	<2.0	20	32
01-Jan-15	8	<2.0	20	32

*All values are in mg/L except pH*



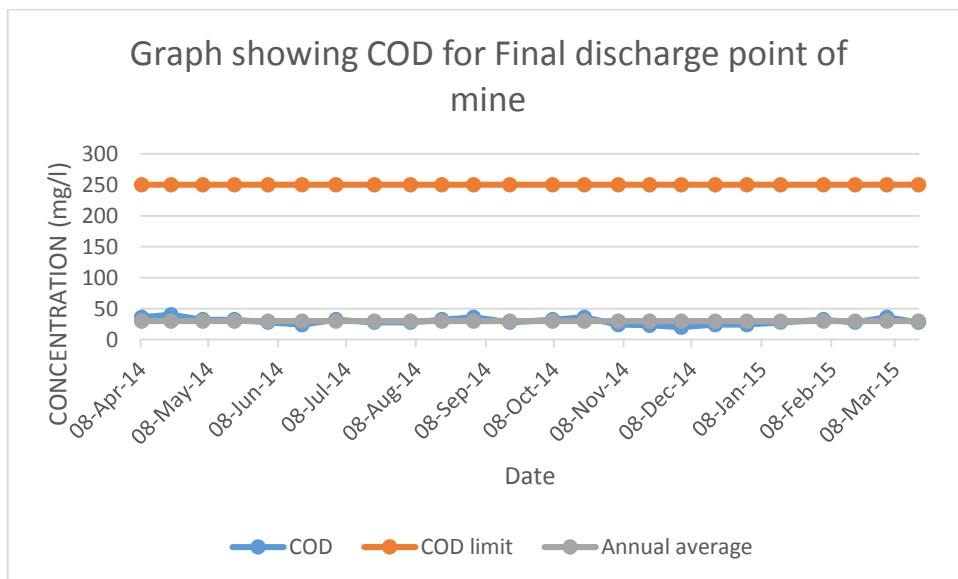
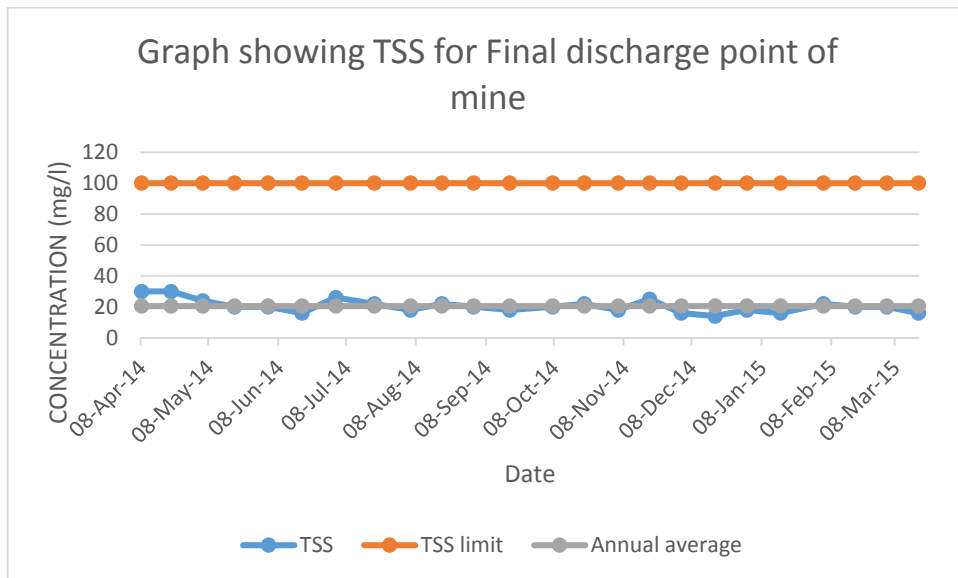
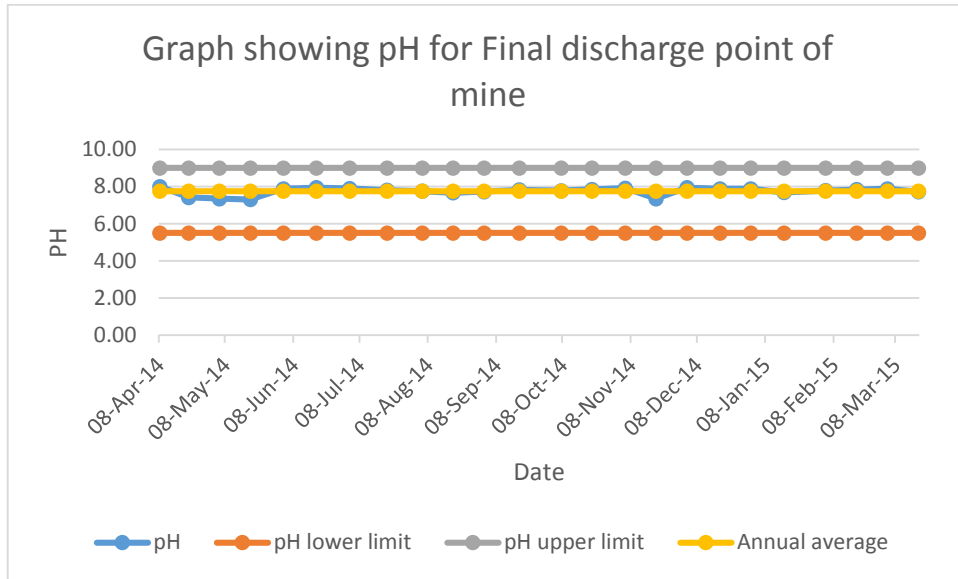
**Table : 134 Effluent Quality Water**

**Project: Kulda OCP**

**Monitoring Station : Final Discharge point of Mine**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
08-Apr-14	8	<2.0	30	36
21-Apr-14	7.4	<2.0	30	40
05-May-14	7.4	<2.0	24	32
19-May-14	7.3	<2.0	20	32
03-Jun-14	7.9	<2.0	20	28
18-Jun-14	7.9	<2.0	16	24
03-Jul-14	7.9	<2.0	26	32
20-Jul-14	7.8	<2.0	22	28
05-Aug-14	7.8	<2.0	18	28
19-Aug-14	7.7	<2.0	22	32
02-Sep-14	7.7	<2.0	20	36
18-Sep-14	7.8	<2.0	18	28
07-Oct-14	7.8	<2.0	20	32
21-Oct-14	7.9	<2.0	22	36
05-Nov-14	7.9	<2.0	18	24
19-Nov-14	7.4	<2.0	25	23
03-Dec-14	7.9	<2.0	16	20
18-Dec-14	7.9	<2.0	14	24
01-Jan-15	7.9	<2.0	18	24
16-Jan-15	7.7	<2.0	16	28
04-Feb-15	7.8	<2.0	22	32
18-Feb-15	7.8	<2.0	20	28
04-Mar-15	7.9	<2.0	20	36
18-Mar-15	7.7	<2.0	16	28

*All values are in mg/L except pH*



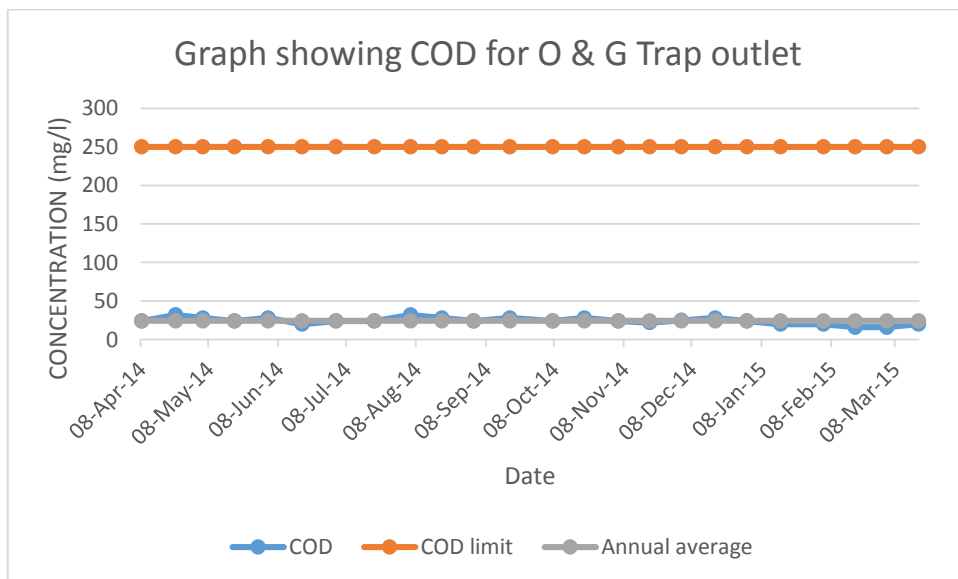
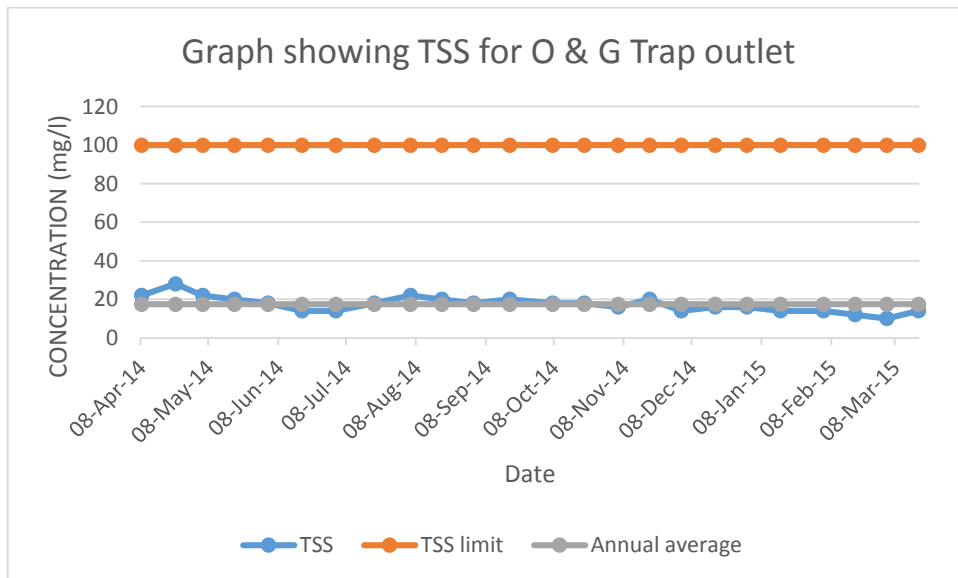
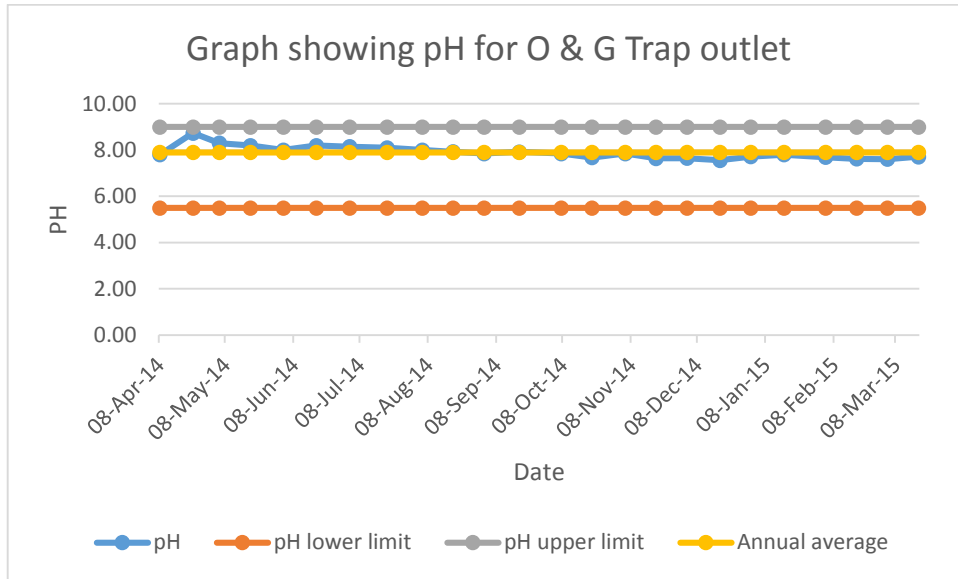
**Table : 135 Effluent Quality Water**

**Project: Basundhara OCP**

**Monitoring Station : O & G Trap Outlet**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
08-Apr-14	7.8	<2.0	22	24
23-Apr-14	8.7	<2.0	28	32
05-May-14	8.3	<2.0	22	28
19-May-14	8.2	<2.0	20	24
03-Jun-14	8	<2.0	18	28
18-Jun-14	8.2	<2.0	14	20
03-Jul-14	8.2	<2.0	14	24
20-Jul-14	8.1	<2.0	18	24
05-Aug-14	8	<2.0	22	32
19-Aug-14	7.9	<2.0	20	28
02-Sep-14	7.9	<2.0	18	24
18-Sep-14	7.9	<2.0	20	28
07-Oct-14	7.9	<2.0	18	24
21-Oct-14	7.7	<2.0	18	28
05-Nov-14	7.9	<2.0	16	24
19-Nov-14	7.6	<2.0	20	22
03-Dec-14	7.7	<2.0	14	25
18-Dec-14	7.6	<2.0	16	28
01-Jan-15	7.7	<2.0	16	24
16-Jan-15	7.8	<2.0	14	20
04-Feb-15	7.7	<2.0	14	20
18-Feb-15	7.6	<2.0	12	16
04-Mar-15	7.6	<2.0	10	16
18-Mar-15	7.7	<2.0	14	20

*All values are in mg/L except pH*



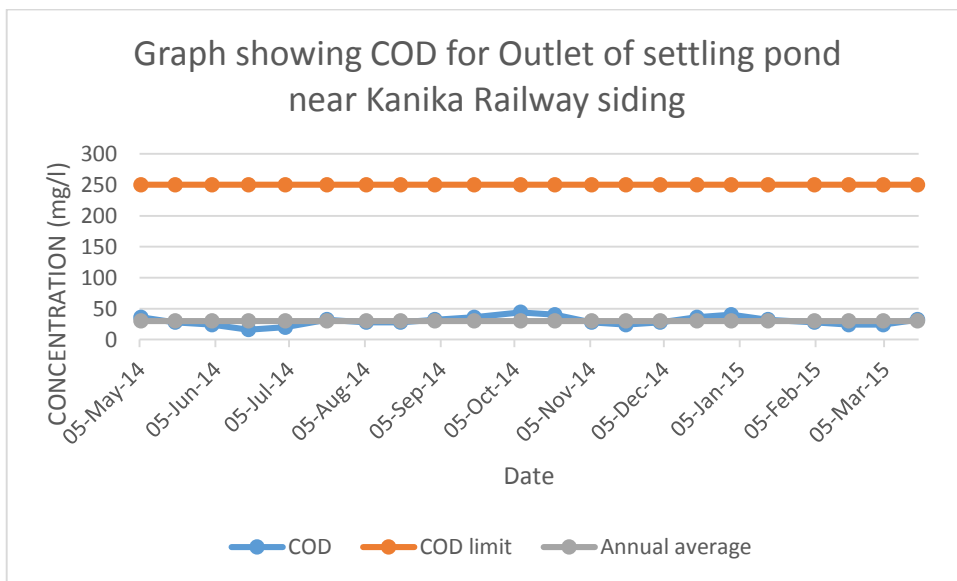
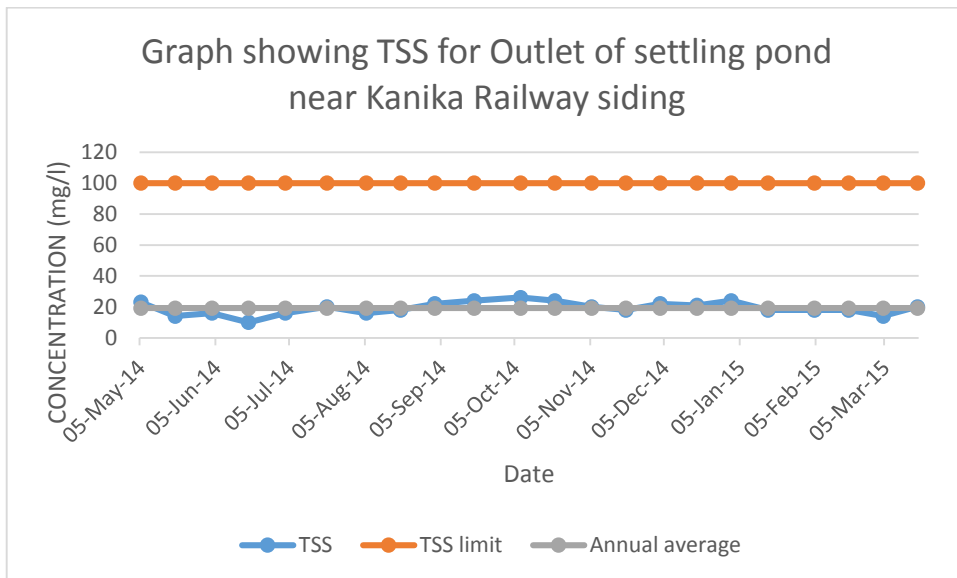
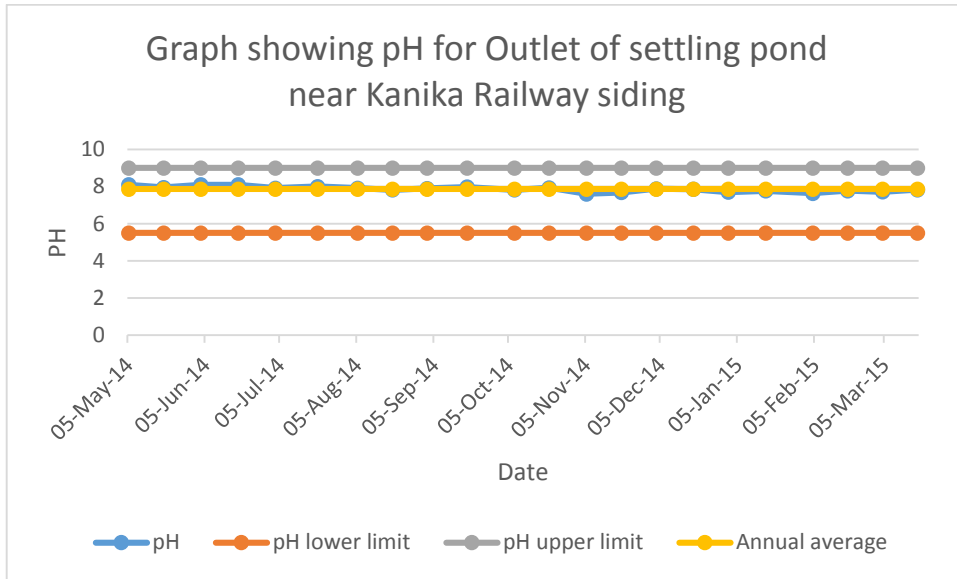
**Table : 136 Effluent Quality Water**

**Project: Basundhara OCP**

**Monitoring Station : Outlet of settling pond near Kanika railway siding**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
05-May-14	8.1	<2.0	23	36
19-May-14	8	<2.0	14	28
03-Jun-14	8.1	<2.0	16	24
18-Jun-14	8.1	<2.0	10	16
03-Jul-14	7.9	<2.0	16	20
20-Jul-14	8	<2.0	20	32
05-Aug-14	7.9	<2.0	16	28
19-Aug-14	7.8	<2.0	18	28
02-Sep-14	7.9	<2.0	22	32
18-Sep-14	8	<2.0	24	36
07-Oct-14	7.8	<2.0	26	44
21-Oct-14	7.9	<2.0	24	40
05-Nov-14	7.6	<2.0	20	28
19-Nov-14	7.7	<2.0	18	24
03-Dec-14	7.9	<2.0	22	28
18-Dec-14	7.9	<2.0	21	36
01-Jan-15	7.7	<2.0	24	40
16-Jan-15	7.8	<2.0	18	32
04-Feb-15	7.6	<2.0	18	28
18-Feb-15	7.8	<2.0	18	24
04-Mar-15	7.7	<2.0	14	24
18-Mar-15	7.8	<2.0	20	32

*All values are in mg/L except pH*



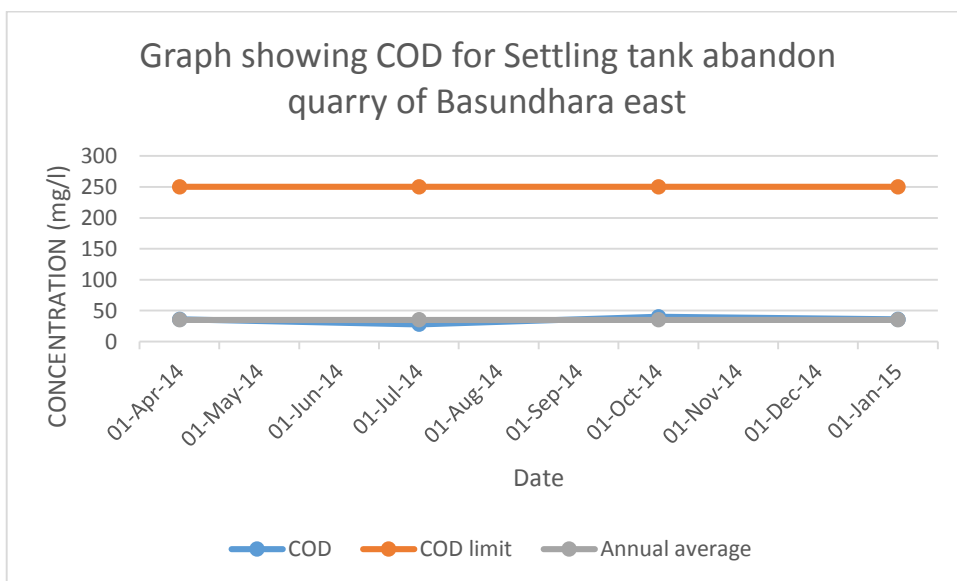
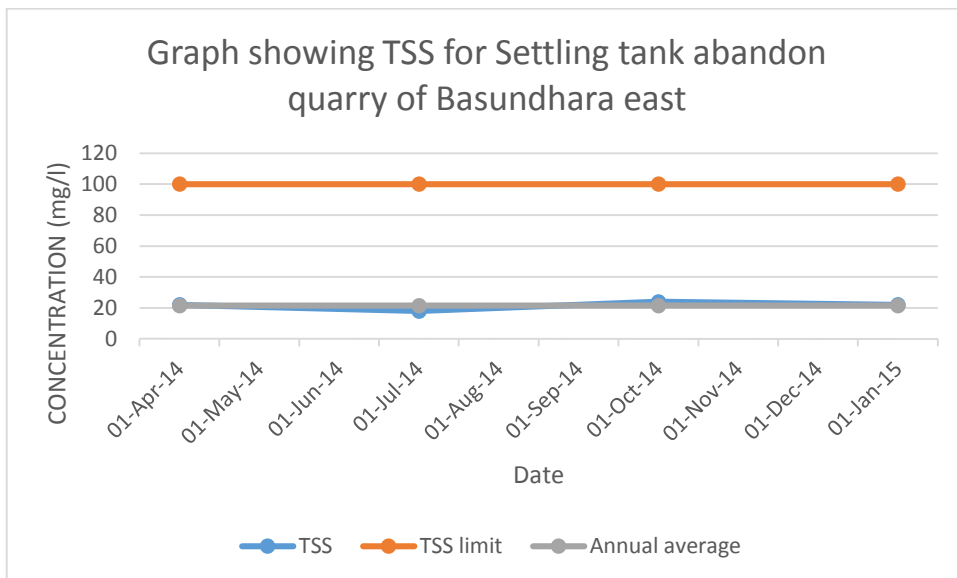
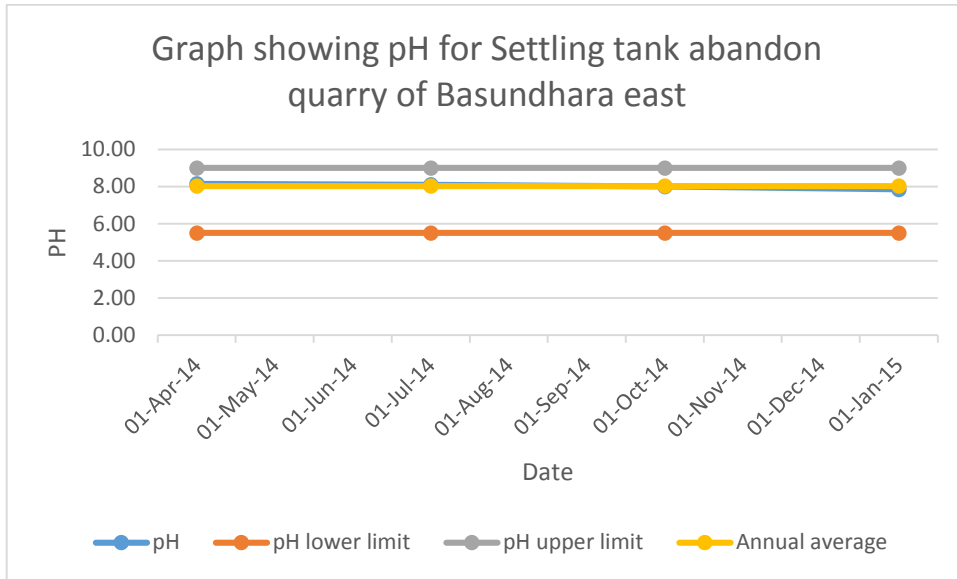
**Table : 137 Effluent Quality Water**

**Project: Basundhara OCP**

**Monitoring Station: Settling tank abandoned Quarry of Basundhara East**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
08-Apr-14	8.2	<2.0	22	36
03-Jul-14	8.1	<2.0	18	28
07-Oct-14	8	<2.0	24	40
01-Jan-15	7.9	<2.0	22	36

*All values are in mg/L except pH*



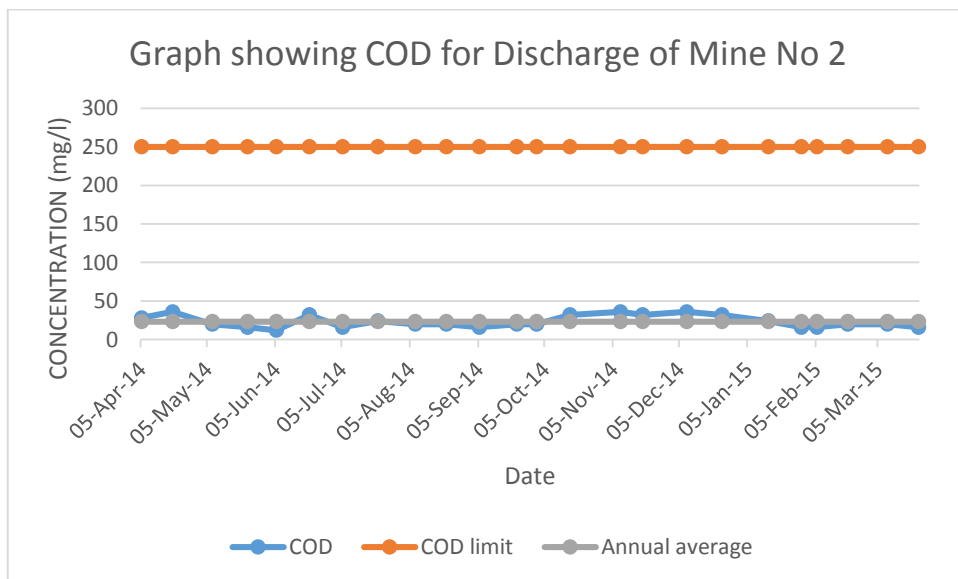
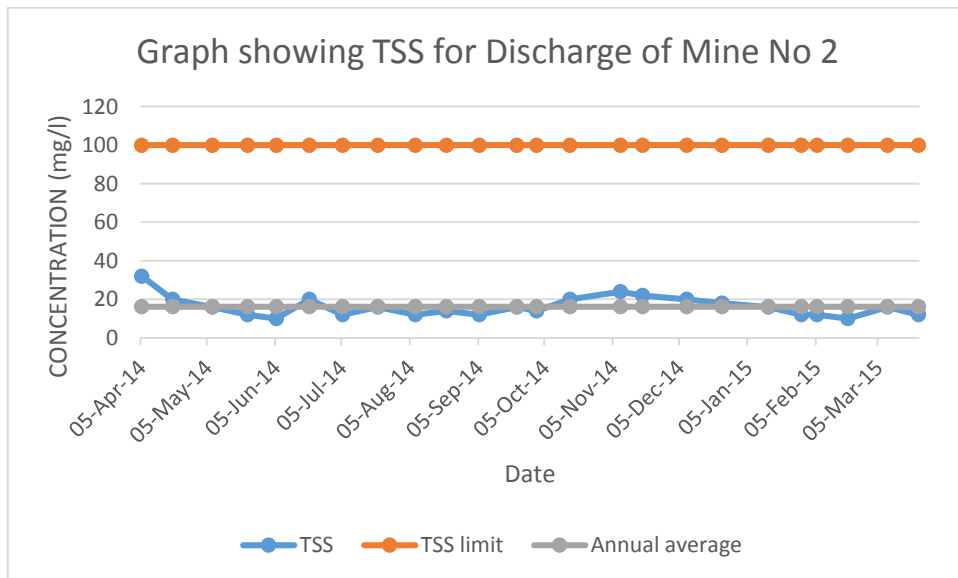
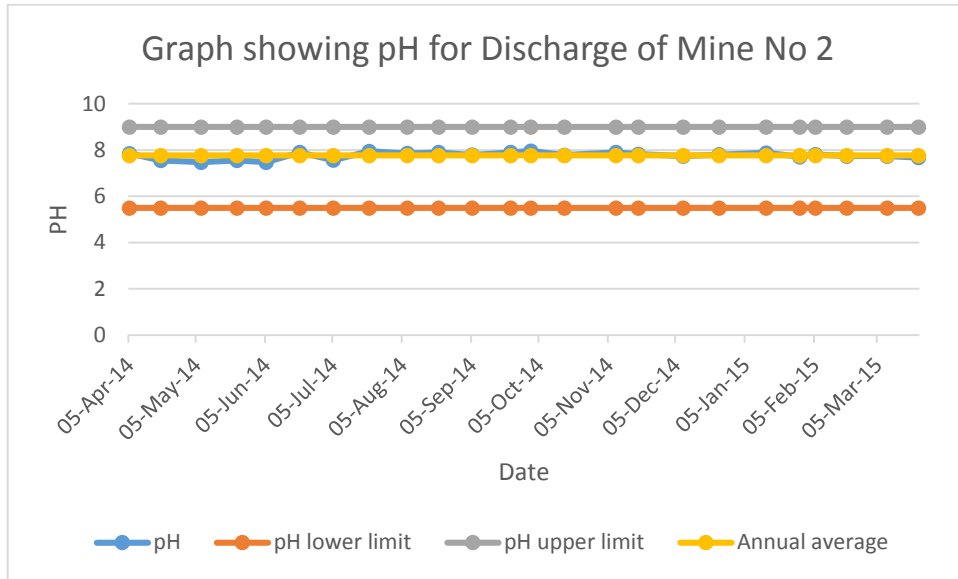
### Table : 138 Effluent Quality Data

Project : Orient U/G

Monitoring Station : Discharge of Mine No-2

Date of Sampling	pH	Oil & Grease	TSS	COD
05-Apr-14	7.9	<2.0	32	28
19-Apr-14	7.6	<2.0	20	36
07-May-14	7.5	<2.0	16	20
23-May-14	7.6	<2.0	12	16
05-Jun-14	7.5	<2.0	10	12
20-Jun-14	7.9	<2.0	20	32
05-Jul-14	7.6	<2.0	12	16
21-Jul-14	8	<2.0	16	24
07-Aug-14	7.9	<2.0	12	20
21-Aug-14	7.9	<2.0	14	20
05-Sep-14	7.8	<2.0	12	16
22-Sep-14	7.9	<2.0	16	20
01-Oct-14	8	<2.0	14	20
16-Oct-14	7.8	<2.0	20	32
08-Nov-14	7.9	<2.0	24	36
18-Nov-14	7.8	<2.0	22	32
08-Dec-14	7.7	<2.0	20	36
24-Dec-14	7.8	<2.0	18	32
14-Jan-15	7.9	<2.0	16	24
29-Jan-15	7.7	<2.0	12	16
05-Feb-15	7.8	<2.0	12	16
19-Feb-15	7.7	<2.0	10	20
09-Mar-15	7.7	<2.0	16	20
23-Mar-15	7.7	<2.0	12	16

*All values are in mg/L except pH*



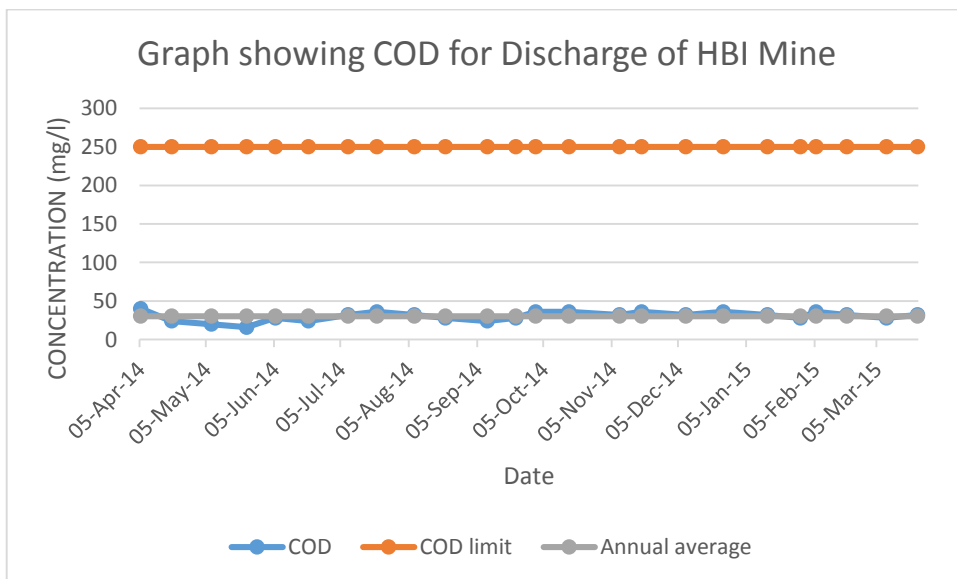
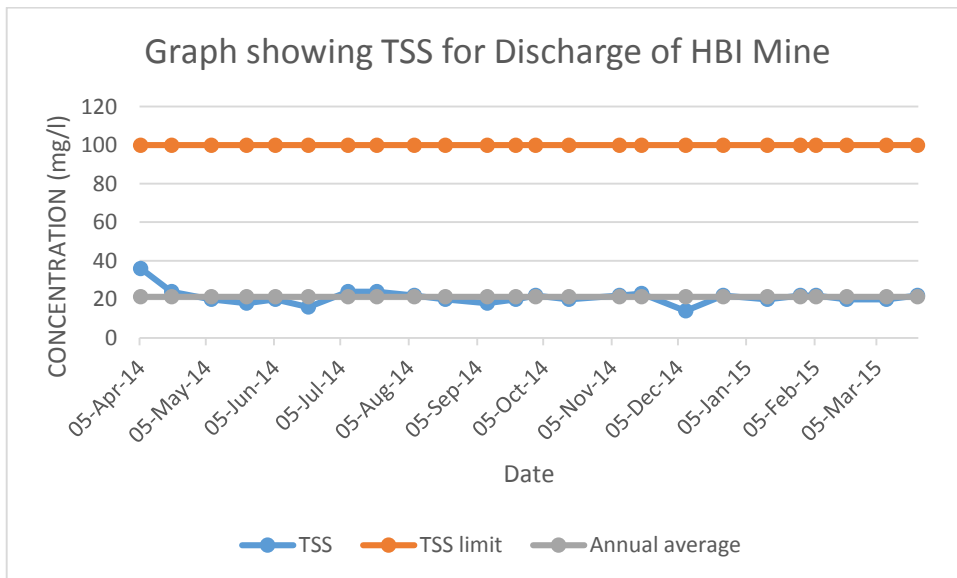
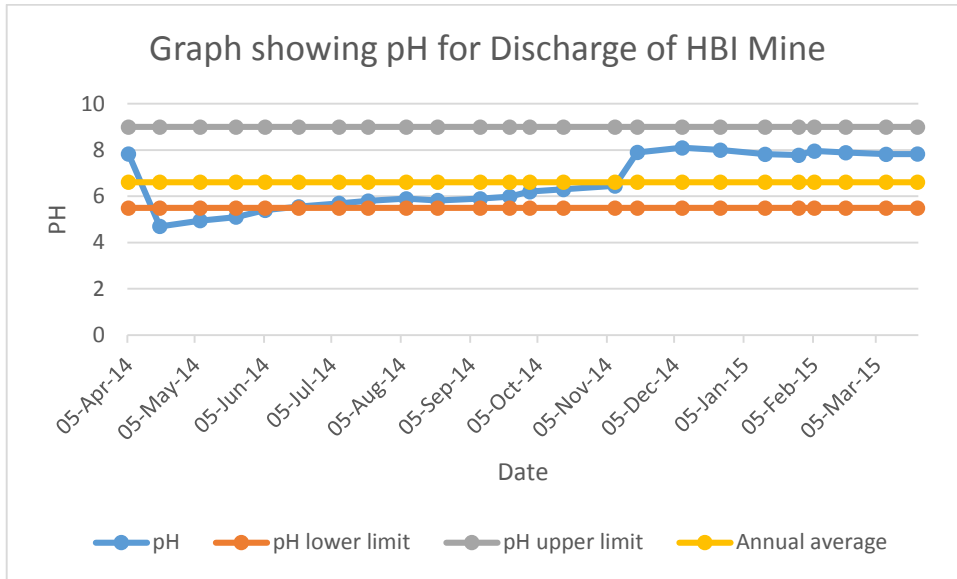
### Table : 139 Effluent Quality Data

#### Project : Orient U/G

#### Monitoring Station :Discharge of HBI mine

Date of Sampling	pH	Oil & Grease	TSS	COD
05-Apr-14	7.8	<2.0	36	40
19-Apr-14	4.7	<2.0	24	24
07-May-14	5	<2.0	20	20
23-May-14	5.1	<2.0	18	16
05-Jun-14	5.4	<2.0	20	28
20-Jun-14	5.6	<2.0	16	24
08-Jul-14	5.7	<2.0	24	32
21-Jul-14	5.8	<2.0	24	36
07-Aug-14	5.9	<2.0	22	32
21-Aug-14	5.8	<2.0	20	28
09-Sep-14	5.9	<2.0	18	24
22-Sep-14	6	<2.0	20	28
01-Oct-14	6.2	<2.0	22	36
16-Oct-14	6.3	<2.0	20	36
08-Nov-14	6.5	<2.0	22	32
18-Nov-14	7.9	<2.0	23	36
08-Dec-14	8.1	<2.0	14	32
25-Dec-14	8	<2.0	22	36
14-Jan-15	7.8	<2.0	20	32
29-Jan-15	7.8	<2.0	22	28
05-Feb-15	8	<2.0	22	36
19-Feb-15	7.9	<2.0	20	32
09-Mar-15	7.8	<2.0	20	28
23-Mar-15	7.8	<2.0	22	32

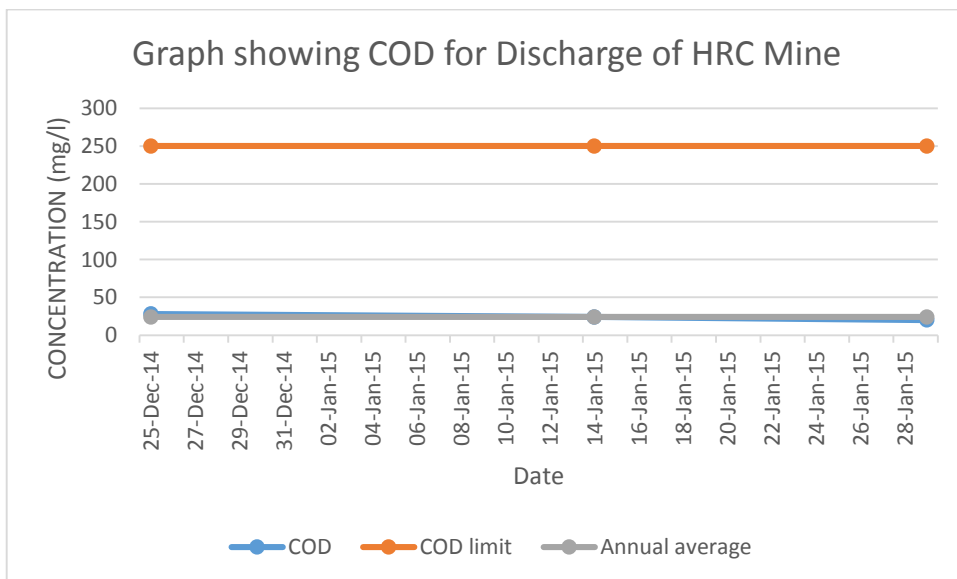
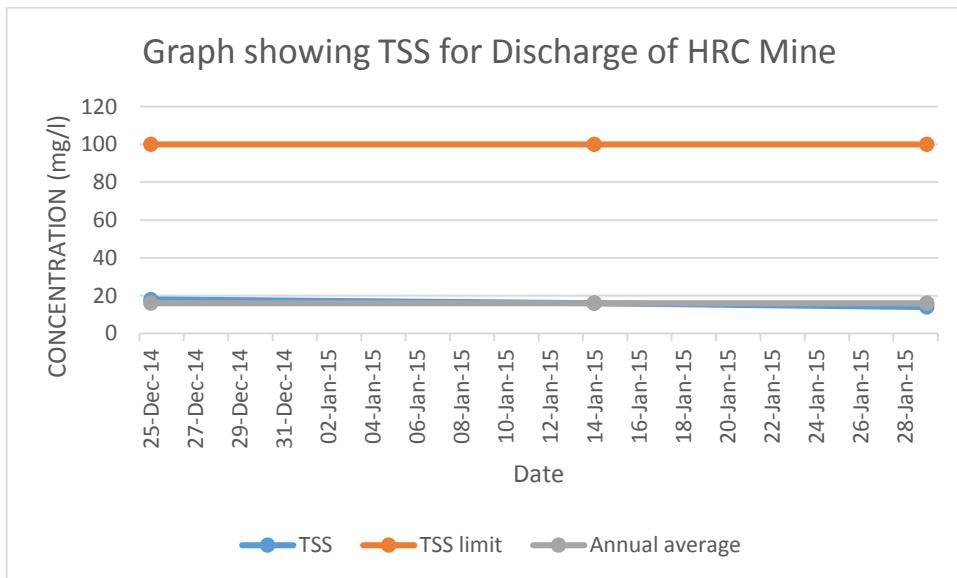
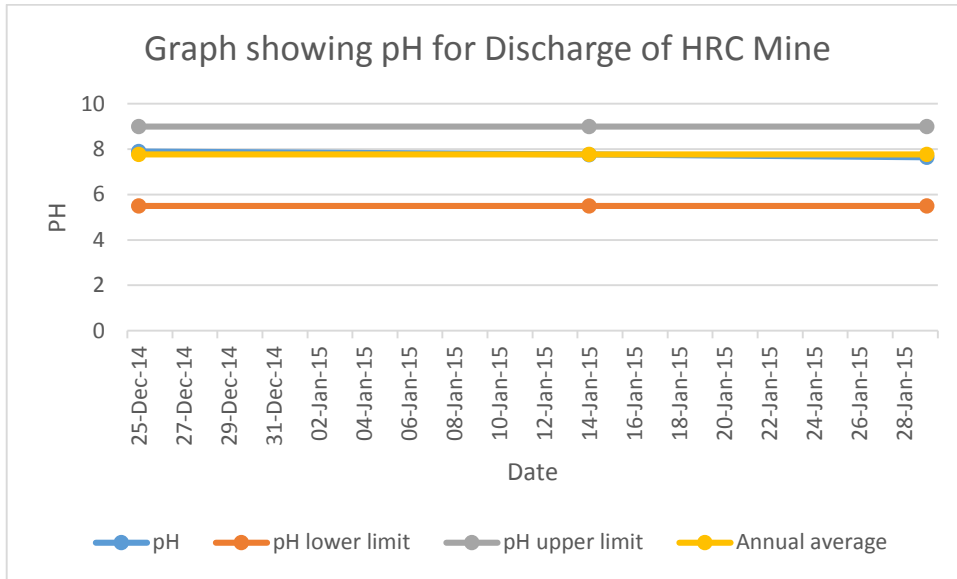
*All values are in mg/L except pH*



**Table : 140 Effluent Quality Data****Project : Orient U/G****Monitoring Station :Discharge of HRC mine**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
25-Dec-14	7.9	<1.0	18	28
14-Jan-15	7.8	<2.0	16	24
29-Jan-15	7.7	<2.0	14	20

*All values are in mg/L except pH*



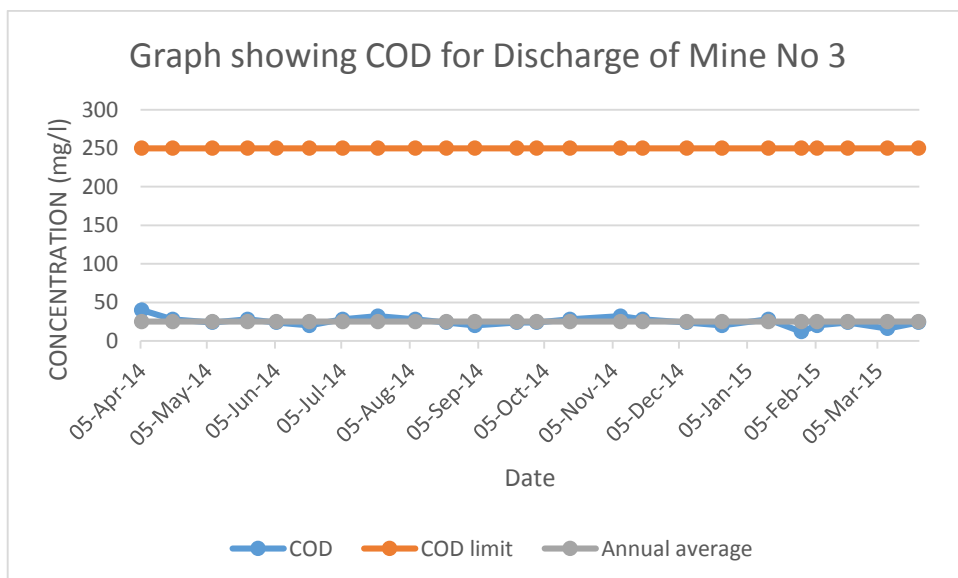
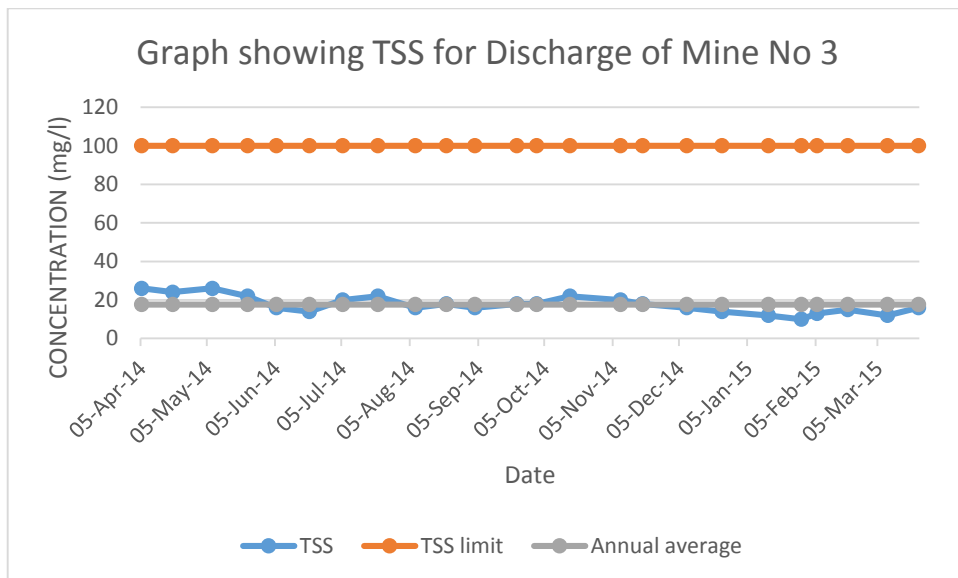
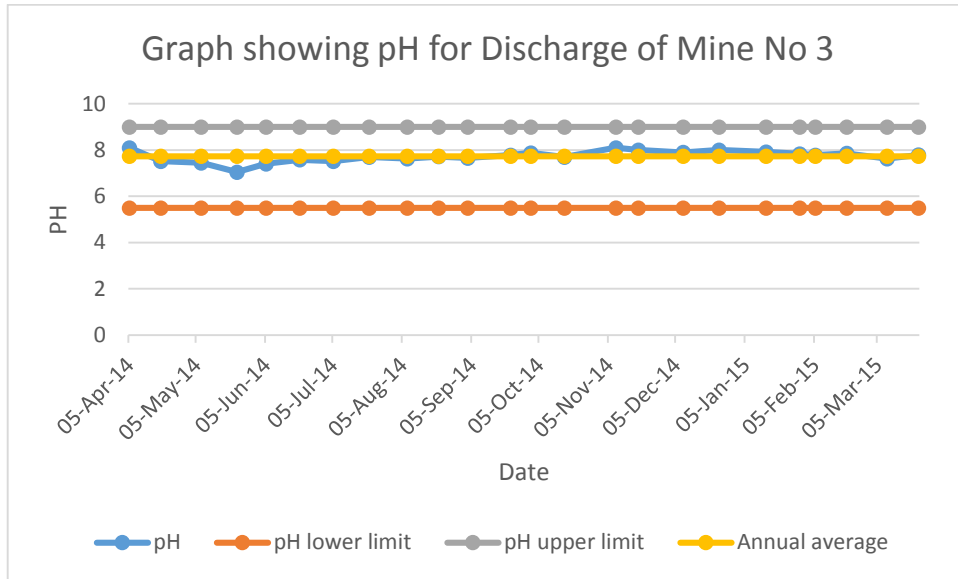
**Table : 141 Effluent Quality Data**

**Project : Orient U/G**

**Monitoring Station :Discharge of Mine No.3**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
05-Apr-14	8.1	<2.0	26	40
19-Apr-14	7.5	<2.0	24	28
07-May-14	7.5	<2.0	26	24
23-May-14	7.1	<2.0	22	28
05-Jun-14	7.4	<2.0	16	24
20-Jun-14	7.6	<2.0	14	20
05-Jul-14	7.5	<2.0	20	28
21-Jul-14	7.7	<2.0	22	32
07-Aug-14	7.6	<2.0	16	28
21-Aug-14	7.7	<2.0	18	24
03-Sep-14	7.7	<2.0	16	20
22-Sep-14	7.8	<2.0	18	24
01-Oct-14	7.9	<2.0	18	24
16-Oct-14	7.7	<2.0	22	28
08-Nov-14	8.1	<2.0	20	32
18-Nov-14	8	<2.0	18	28
08-Dec-14	7.9	<2.0	16	24
24-Dec-14	8	<2.0	14	20
14-Jan-15	7.9	<2.0	12	28
29-Jan-15	7.8	<2.0	10	12
05-Feb-15	7.8	<2.0	13	20
19-Feb-15	7.9	<2.0	15	24
09-Mar-15	7.6	<2.0	12	16
23-Mar-15	7.8	<2.0	16	24

*All values are in mg/L except pH*



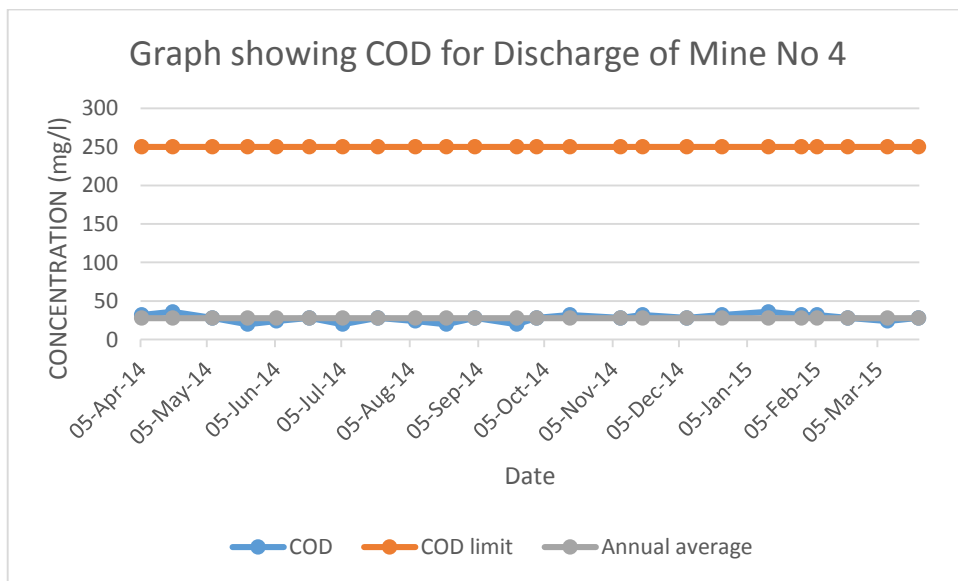
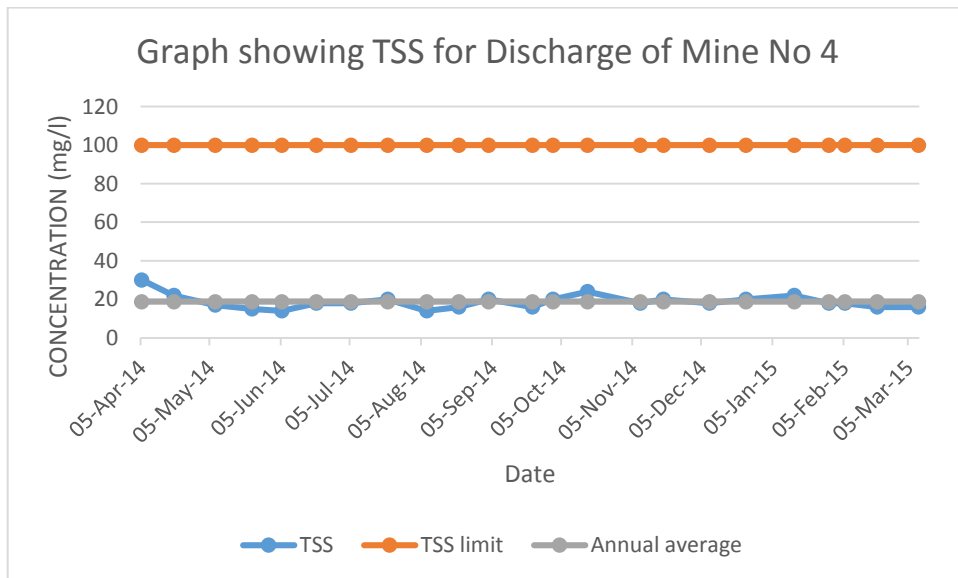
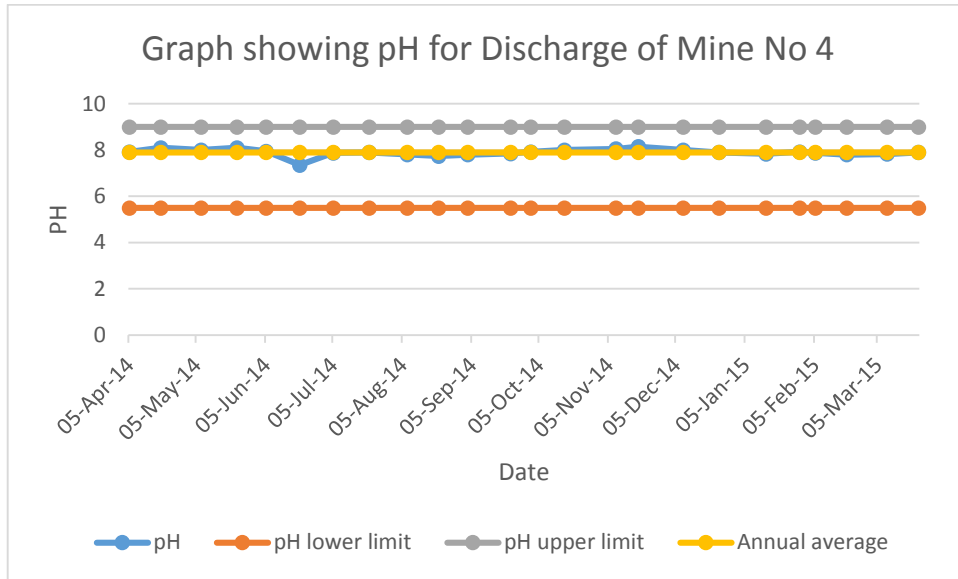
**Table : 142 Effluent Quality Data**

**Project : Orient U/G**

**Monitoring Station :Discharge of Mine No.4**

<b>Date of Sampling</b>	<b>pH</b>	<b>Oil &amp; Grease</b>	<b>TSS</b>	<b>COD</b>
05-Apr-14	7.9	<2.0	30	32
19-Apr-14	8.1	<2.0	22	36
07-May-14	8	<2.0	17	28
23-May-14	8.1	<2.0	15	20
05-Jun-14	8	<2.0	14	24
20-Jun-14	7.4	<2.0	18	28
05-Jul-14	7.9	<2.0	18	20
21-Jul-14	7.9	<2.0	20	28
07-Aug-14	7.8	<2.0	14	24
21-Aug-14	7.7	<2.0	16	20
03-Sep-14	7.8	<2.0	20	28
22-Sep-14	7.9	<2.0	16	20
01-Oct-14	7.9	<2.0	20	28
16-Oct-14	8	<2.0	24	32
08-Nov-14	8.1	<2.0	18	28
18-Nov-14	8.2	<2.0	20	32
08-Dec-14	8	<2.0	18	28
24-Dec-14	7.9	<2.0	20	32
14-Jan-15	7.8	<2.0	22	36
29-Jan-15	7.9	<2.0	18	32
05-Feb-15	7.9	<2.0	18	32
19-Feb-15	7.8	<2.0	16	28
09-Mar-15	7.8	<2.0	16	24
23-Mar-15	7.9	<2.0	20	28

*All values are in mg/L except pH*



## Effluent Yearly 21 Parameter : IB Valley Area

Area	Ib-Valley	Ib-Valley	<b>MoEF- Sch-VI Standards</b>
Project	Lajkura OCP	Samleswari OCP	
Sampling station	Outlet from sedimentation pond (MDTP)	Outlet from sedimentation Tank (MDTP)	
<b>Date</b>	24.1.2015	24.1.2015	
<b>Color</b>	Acceptable	Acceptable	<b>Acceptable</b>
<b>Odour</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Temp. °C</b>	19.3	19.5	
<b>Nitrate Nitrogen</b>	2	2.2	<b>10</b>
<b>Ammonia Nitrogen</b>	0.24	0.26	<b>50</b>
<b>Total Kjeldahl Nitrogen</b>	1.24	1.24	<b>100</b>
<b>BOD</b>	12	8	<b>30</b>
<b>Arsenic</b>	<0.01	<0.01	<b>0.2</b>
<b>Lead</b>	<0.05	<0.05	<b>0.1</b>
<b>Hexavalent Chromium</b>	<0.01	<0.01	<b>0.1</b>
<b>Total Chromium</b>	<0.1	<0.1	<b>2</b>
<b>Copper</b>	0.12	<0.02	<b>3</b>
<b>Zinc</b>	0.16	0.12	<b>5</b>
<b>Selenium</b>	<0.01	<0.01	<b>0.05</b>
<b>Nickel</b>	<0.1	<0.1	<b>3</b>
<b>Flouride</b>	0.13	0.2	<b>2</b>
<b>Dis. PO<sub>4</sub></b>	0.22	0.18	<b>5</b>
<b>Sulphide</b>	0.004	0.005	<b>2</b>
<b>Phenols</b>	<0.001	<0.001	<b>1</b>
<b>Manganese</b>	<0.05	<0.05	<b>2</b>
<b>Iron</b>	0.11	0.14	<b>3</b>

## Effluent Yearly 21 Parameter: Lakhanpur Area

Area	Lakhanpur	Lakhanpur	Lakhanpur	<b>MoEF-Sch-VI Standards</b>
Project	Lilari OCP	Belpahar OCP	Lakhanpur OCP	
Sampling station	Outlet O & G Trap	Outlet from sedimentation Pond	Outlet from sedimentation Pond	
Date	24.01.15	24.1.2015	23.1.2015	
<b>Color</b>	Acceptable	Acceptable	Acceptable	<b>Acceptable</b>
<b>Odour</b>	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Temp. °C</b>	19.4	19.3	19.5	
<b>Nitrate Nitrogen</b>	1.8	1.9	2	<b>10</b>
<b>Ammonia Nitrogen</b>	0.28	0.24	0.28	<b>50</b>
<b>Total Kjeldahl Nitrogen</b>	2.1	2.16	2.25	<b>100</b>
<b>BOD</b>	16	12	16	<b>30</b>
<b>Arsenic</b>	<0.01	<0.01	<0.01	<b>0.2</b>
<b>Lead</b>	<0.05	<0.05	<0.05	<b>0.1</b>
<b>Hexavalent Chromium</b>	<0.01	<0.01	<0.01	<b>0.1</b>
<b>Total Chromium</b>	<0.1	<0.1	<0.1	<b>2</b>
<b>Copper</b>	<0.02	<0.02	<0.02	<b>3</b>
<b>Zinc</b>	0.22	0.15	0.12	<b>5</b>
<b>Selenium</b>	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Nickel</b>	<0.1	<0.1	<0.1	<b>3</b>
<b>Flouride</b>	0.32	0.34	0.3	<b>2</b>
<b>Dis. PO<sub>4</sub></b>	0.28	0.18	0.14	<b>5</b>
<b>Sulphide</b>	0.005	0.005	0.005	<b>2</b>
<b>Phenols</b>	<0.001	<0.001	<0.001	<b>1</b>
<b>Manganese</b>	<0.05	<0.05	<0.05	<b>2</b>
<b>Iron</b>	0.17	0.11	0.13	<b>3</b>

# Effluent Yearly 21 Parameter: Basundhara Area

<b>Area</b>	Basundhara	Basundhara	<b>MoEF-Sch-VI Standards</b>
<b>Project</b>	Kulda OCP	Basundhara	
<b>Sampling station</b>	Final Discharge Point	Outlet to settling Pond near Kanika Rly. Sdg.	
<b>Date</b>	19.1.2015	19.1.2015	
<b>Color</b>	Acceptable	Acceptable	<b>Acceptable</b>
<b>Odour</b>	Agreeable	Agreeable	<b>Agreeable</b>
<b>Temp. °C</b>	19.1	19.5	
<b>Nitrate Nitrogen</b>	1.8	1.9	<b>10</b>
<b>Ammonia Nitrogen</b>	0.32	0.16	<b>50</b>
<b>Total Kjeldahl Nitrogen</b>	2.32	2.22	<b>100</b>
<b>BOD</b>	8	12	<b>30</b>
<b>Arsenic</b>	<0.01	<0.01	<b>0.2</b>
<b>Lead</b>	<0.05	<0.05	<b>0.1</b>
<b>Hexavalent Chromium</b>	<0.01	<0.01	<b>0.1</b>
<b>Total Chromium</b>	<0.1	<0.1	<b>2</b>
<b>Copper</b>	<0.02	<0.02	<b>3</b>
<b>Zinc</b>	0.12	0.14	<b>5</b>
<b>Selenium</b>	<0.01	<0.01	<b>0.05</b>
<b>Nickel</b>	<0.1	<0.1	<b>3</b>
<b>Flouride</b>	0.3	0.31	<b>2</b>
<b>Dis. PO<sub>4</sub></b>	0.14	0.16	<b>5</b>
<b>Sulphide</b>	0.005	0.004	<b>2</b>
<b>Phenols</b>	<0.001	<0.001	<b>1</b>
<b>Manganese</b>	<0.05	<0.05	<b>2</b>
<b>Iron</b>	0.13	0.12	<b>3</b>

## Effluent Yearly 21 Parameter: Orient Area

Area	Orient	Orient	Orient	Orient	Orient	<b>MoEF-Sch-VI Standards</b>
Project	Orient Project	Orient Project	Orient Project	HBI	HRC	
Sampling station	Mine dis. From mine no. 2	Mine dis. From mine no. 3	Mine dis. From mine no. 4	Mine dis. From HBI mine	Mine dis. From HRC mine	
<b>Date</b>	21.1.2015	21.1.2015	21.01.15	21.01.15	24.01.15	
<b>Color</b>	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	<b>Acceptable</b>
<b>Odour</b>	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	<b>Agreeable</b>
<b>Temp. °C</b>	19.3	19.2	19.2	19.4	19.3	
<b>Nitrate Nitrogen</b>	2	1.8	2.2	2.2	2	<b>10</b>
<b>Ammonia Nitrogen</b>	0.18	0.27	0.18	0.16	0.2	<b>50</b>
<b>Total Kjeldahl Nitrogen</b>	2.34	2.18	1.75	1.94	2.24	<b>100</b>
<b>BOD</b>	8	16	8	16	12	<b>30</b>
<b>Arsenic</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<b>0.2</b>
<b>Lead</b>	<0.05	<0.05	<0.05	<0.05	<0.05	<b>0.1</b>
<b>Hexavalent Chromium</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<b>0.1</b>
<b>Total Chromium</b>	<0.1	<0.1	<0.1	<0.1	<0.1	<b>2</b>
<b>Copper</b>	<0.02	<0.02	<0.02	<0.02	<0.02	<b>3</b>
<b>Zinc</b>	0.1	0.14	0.12	0.22	0.16	<b>5</b>
<b>Selenium</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<b>0.05</b>
<b>Nickel</b>	<0.01	<0.1	<0.1	<0.1	<0.1	<b>3</b>
<b>Flouride</b>	0.64	0.54	0.52	0.62	0.78	<b>2</b>
<b>Dis. PO<sub>4</sub></b>	0.78	0.24	0.26	0.32	0.26	<b>5</b>
<b>Sulphide</b>	0.004	0.003	0.004	0.005	0.004	<b>2</b>
<b>Phenols</b>	<0.001	<0.001	<0.001	<0.001	<0.001	<b>1</b>
<b>Manganese</b>	<0.05	<0.05	<0.05	<0.05	<0.05	<b>2</b>
<b>Iron</b>	0.13	0.14	0.18	0.15	0.18	<b>3</b>

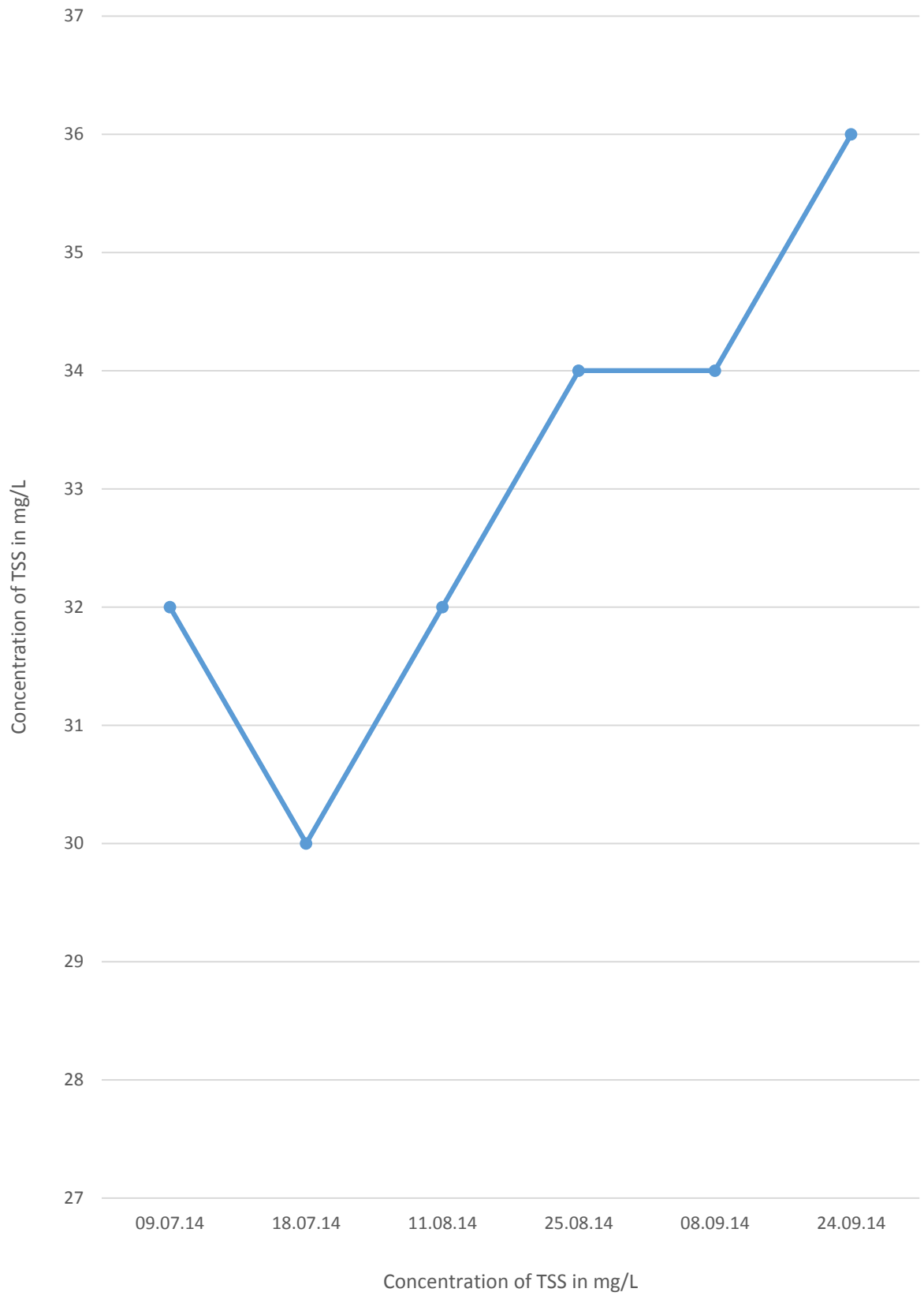
**Table : 149**  
**SILTATION STUDY AT IB VALLEY COALFIELD**

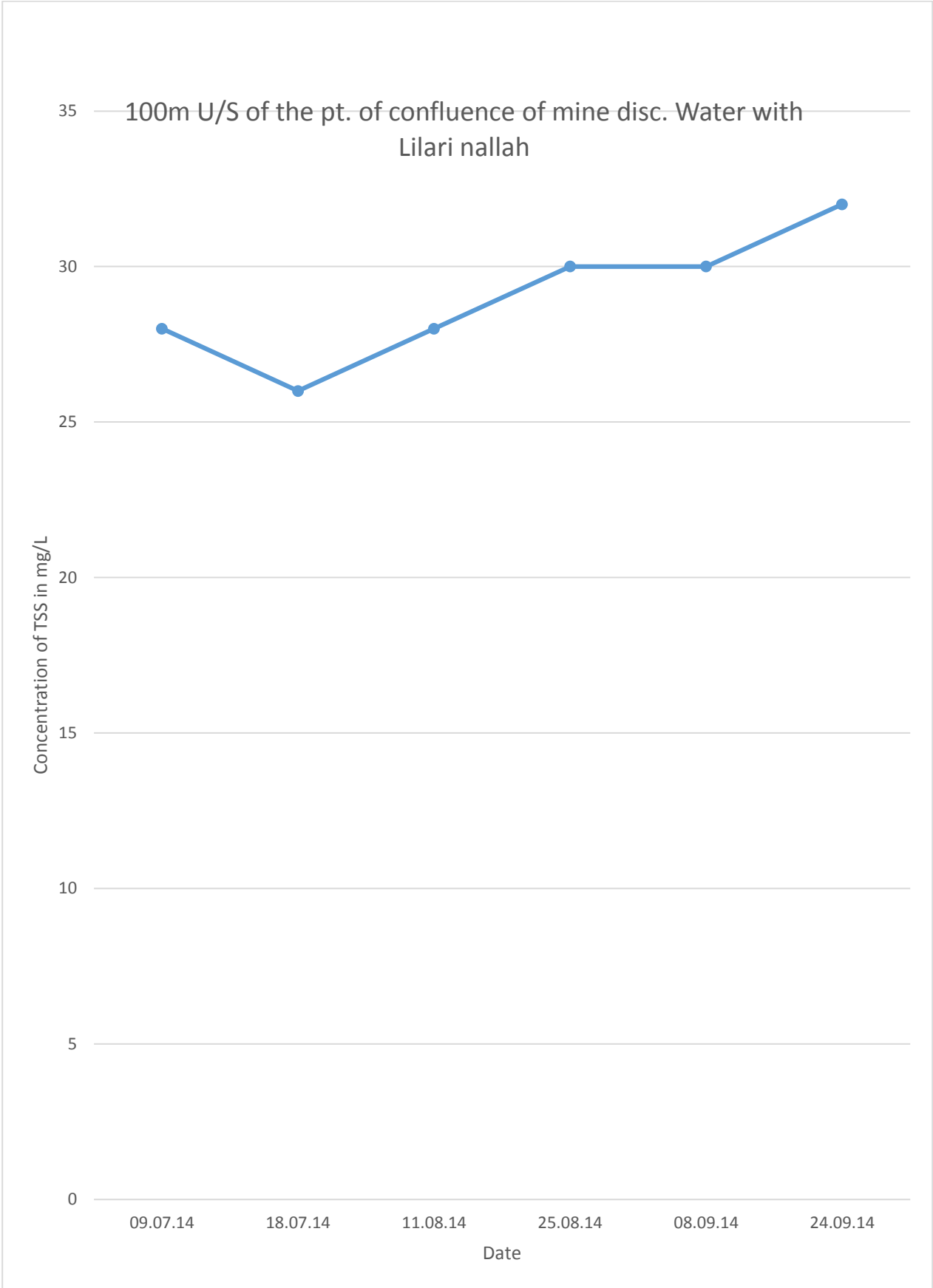
**LAKHANPUR OCP**

Project	Monitoring Station	Date of Sampling	TSS
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.07.14	28
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.07.14	32
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	18.07.14	26
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	18.07.14	30
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	11.08.14	28
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	11.08.14	32
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	25.08.14	30
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	25.08.14	34
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	08.09.14	30
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	08.09.14	34
Lakhanpur OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	24.09.14	32
Lakhanpur OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	24.09.14	36

*All values are in mg/L*

100m D/S of the pt. of confluence of mine disc. Water with  
Lilari nallah



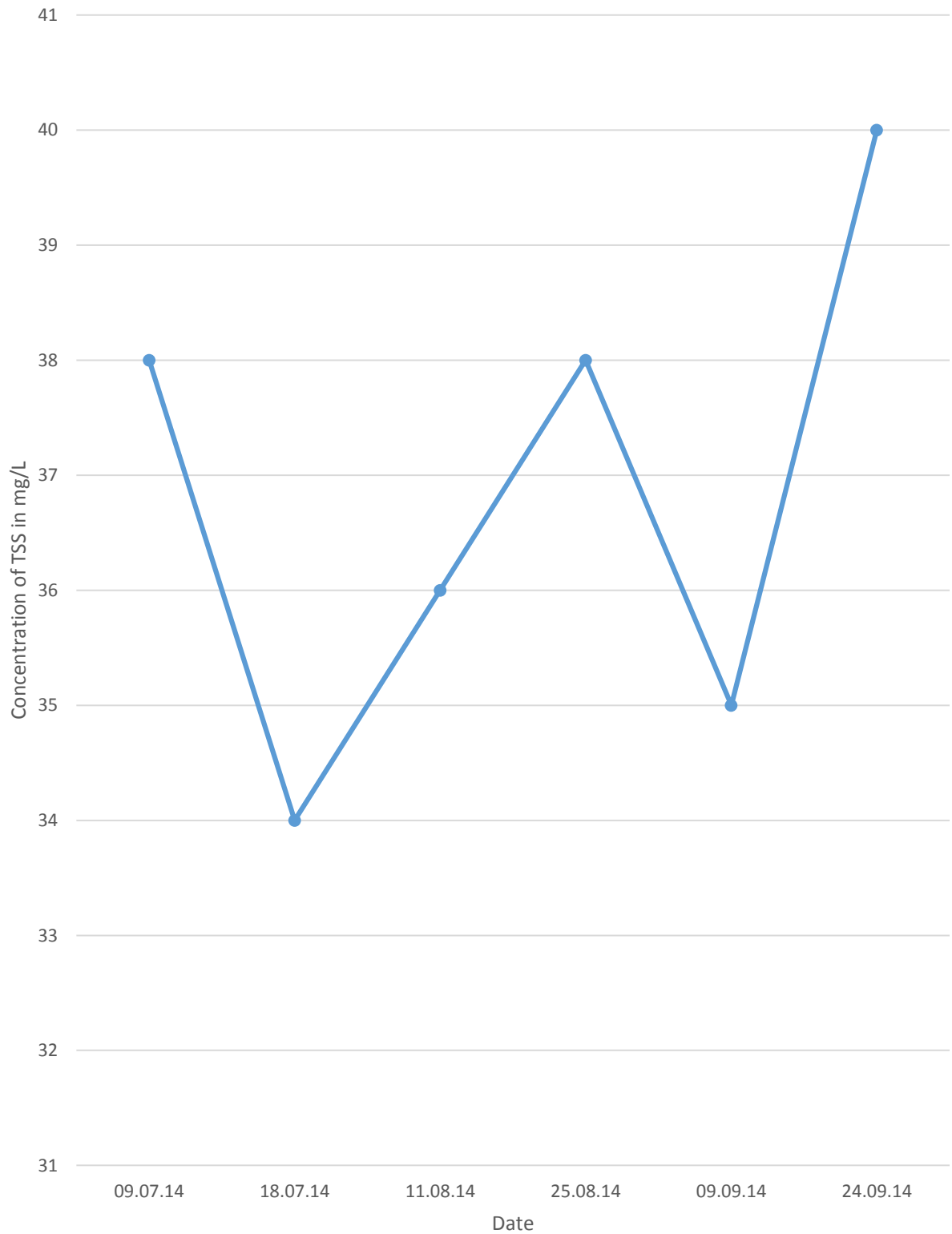


**SILTATION STUDY AT IB VALLEY COALFIELD  
LAKHANPUR AREA  
Belpahar OCP**

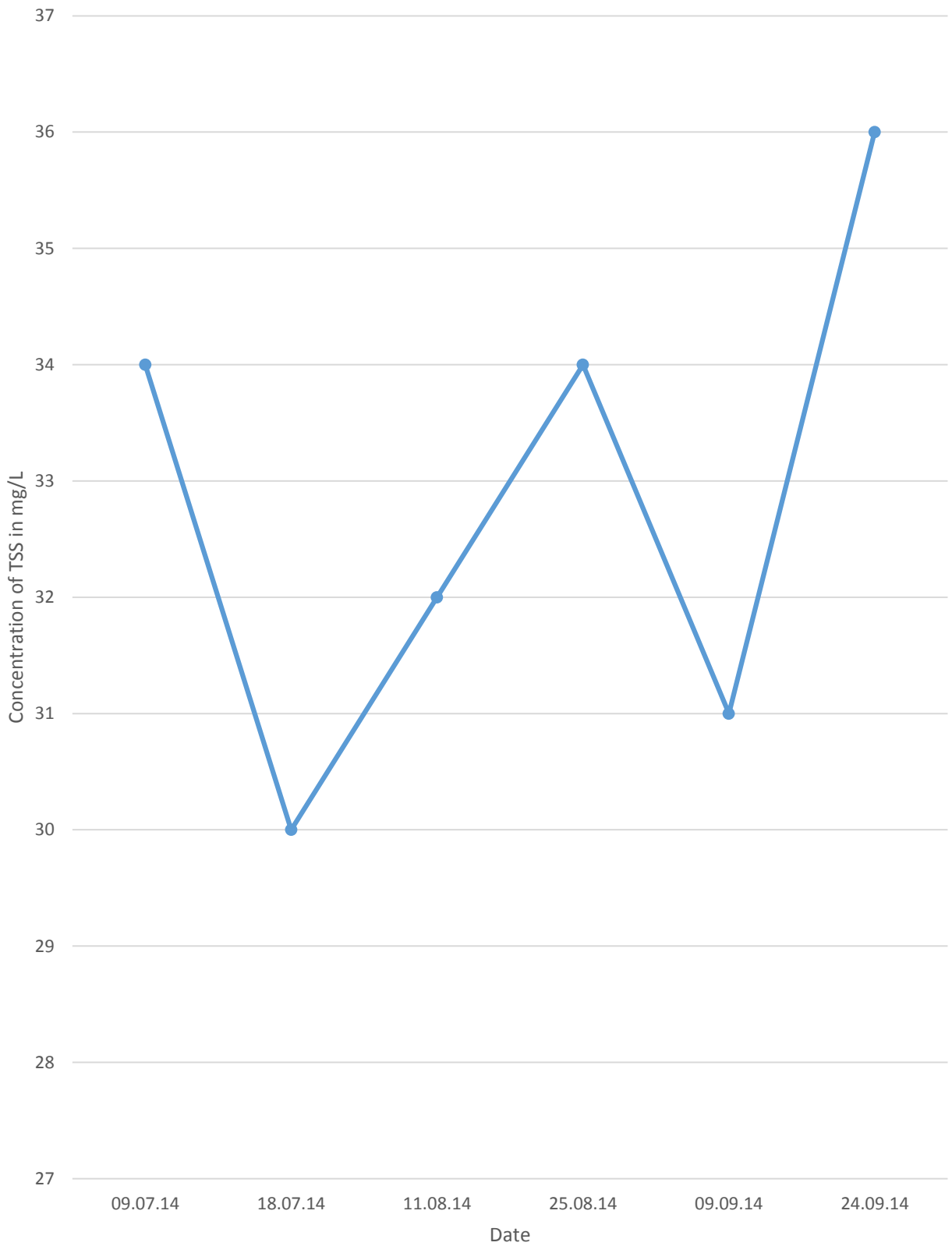
Project	Monitoring Station	Date of Sampling	TSS
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.07.14	34
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.07.14	38
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	18.07.14	30
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	18.07.14	34
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	11.08.14	32
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	11.08.14	36
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	25.08.14	34
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	25.08.14	38
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.09.14	31
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	09.09.14	35
Belpahar OCP	100m U/S of the pt. of confluence of mine disc. Water with Lilarinallah	24.09.14	36
Belpahar OCP	100m D/S of the pt. of confluence of mine disc. Water with Lilarinallah	24.09.14	40

*All values are in mg/L*

100m D/S of the pt. of confluence of mine disc. Water with  
Lilari nallah



100m U/S of the pt. of confluence of mine disc. Water with Lilari nallah

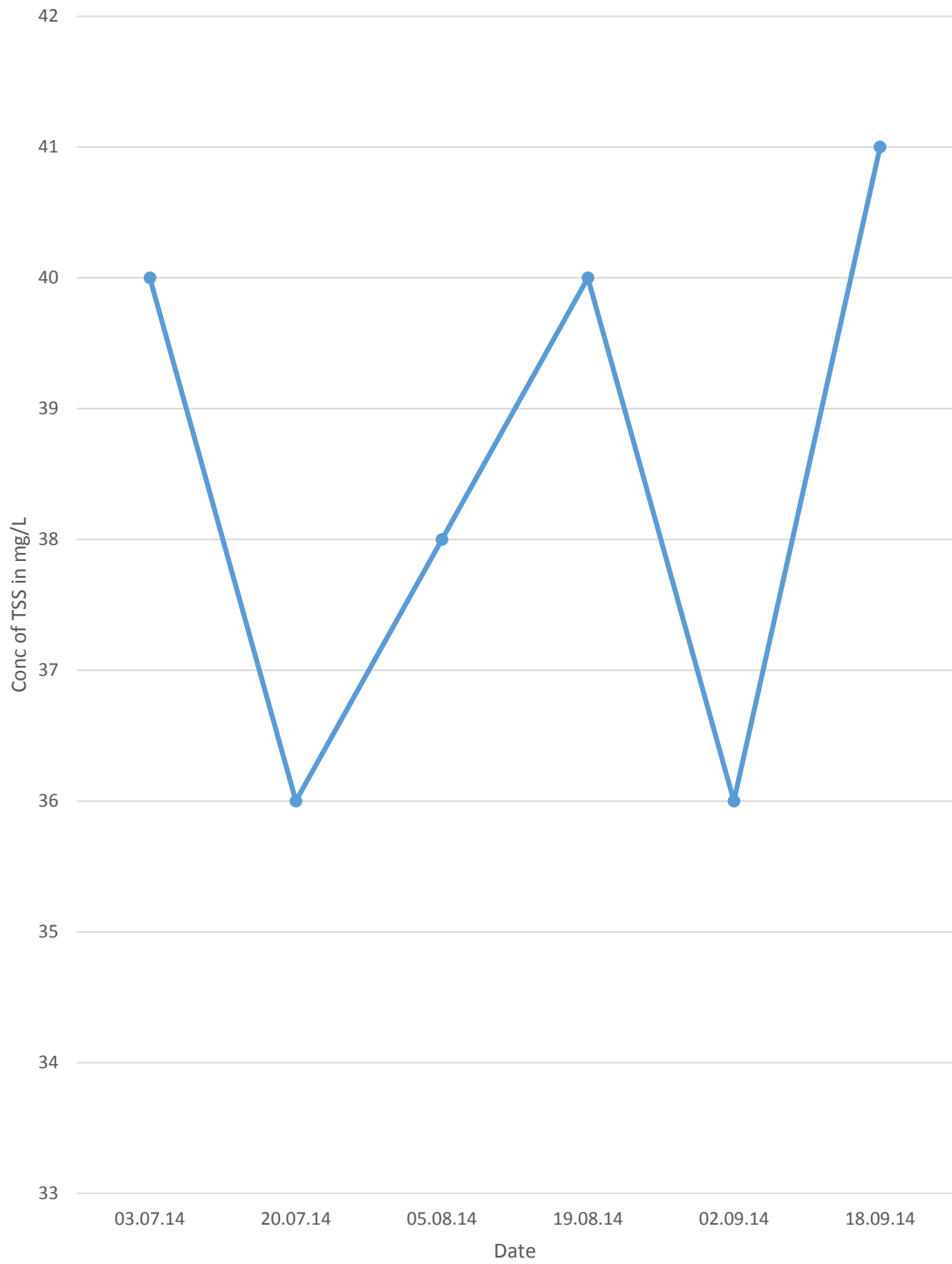


**Table : 151**

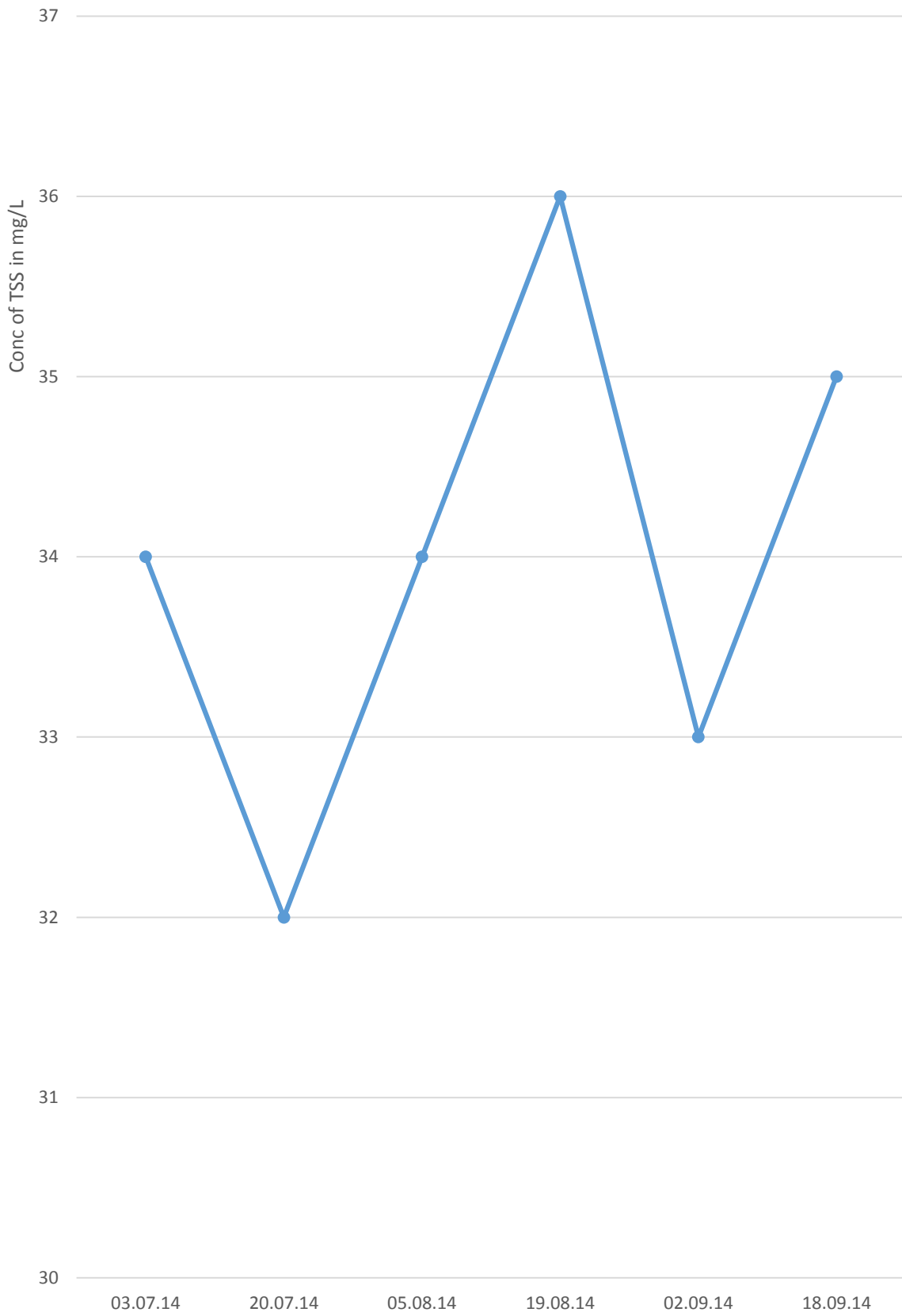
**SILTATION STUDY AT IB VALLEY COALFIELD  
Basundhara Area**

<b>Project</b>	<b>Monitoring Station</b>	<b>Date of Sampling</b>	<b>TSS</b>
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	03.07.14	34
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	03.07.14	40
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	20.07.14	32
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	20.07.14	36
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	05.08.14	34
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	05.08.14	38
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	19.08.14	36
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	19.08.14	40
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	02.09.14	33
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	02.09.14	36
Basundhara (w)OCP	100m U/S of BasundharaNallah from discharge point of Basundhara (w)	18.09.14	35
Basundhara (w)OCP	100m D/S of BasundharaNallah from discharge point of Basundhara (w)	18.09.14	41

100m D/S of Basundhara Nallah from discharge point of  
Basundhara (w)



100m U/S of Basundhara Nallah from discharge point of Basundhara (w)



**Table : 143 Well Water****Project : IB-Valley**

<b>Project</b>	<b>Name of the Station</b>	<b>Date of sampling</b>	<b>Water level</b>
Samaleswari OCP	Anapali Village Well	12-May-14	4.14
Samaleswari OCP	Anapali Village Well	14-Aug-14	2.71
Samaleswari OCP	Anapali Village Well	11-Nov-14	3.5
Samaleswari OCP	Anapali Village Well	14-Jan-15	2.53
Samaleswari OCP	Chingriguda Village Well	12-May-14	3.5
Samaleswari OCP	Chingriguda Village Well	14-Aug-14	2.95
Samaleswari OCP	Chingriguda Village Well	11-Nov-14	3.14
Samaleswari OCP	Chingriguda Village Well	14-Jan-15	2.86
Samaleswari OCP	Kudopali Village Well	12-May-14	2.92
Samaleswari OCP	Kudopali Village Well	14-Aug-14	1.43
Samaleswari OCP	Kudopali Village Well	11-Nov-14	3.23
Samaleswari OCP	Kudopali Village Well	14-Jan-15	1.76
Samaleswari OCP	Lajkura Village Well	12-May-14	4.48
Samaleswari OCP	Lajkura Village Well	14-Aug-14	3.2
Samaleswari OCP	Lajkura Village Well	11-Nov-14	4.17
Samaleswari OCP	Lajkura Village Well	14-Jan-15	2.8
Lajkura OCP	Madhuban Nagar Well	12-May-14	3.75
Lajkura OCP	Madhuban Nagar Well	14-Aug-14	3.26
Lajkura OCP	Madhuban Nagar Well	11-Nov-14	3.56
Lajkura OCP	Madhuban Nagar Well	14-Jan-15	2.92
Lajkura OCP	Chhauliberna Village Well	12-May-14	3.5
Lajkura OCP	Chhauliberna Village Well	14-Aug-14	2.98
Lajkura OCP	Chhauliberna Village Well	11-Nov-14	3.81
Lajkura OCP	Chhauliberna Village Well	14-Jan-15	2.68

## Project : 144 Lakhapur

**Table : Well Water**

Project	Name of the Station	Date of sampling	Water level
Belpahar OCP	Darlipali Village Well	12-May-14	3.32
Belpahar OCP	Darlipali Village Well	14-Aug-14	2.28
Belpahar OCP	Darlipali Village Well	11-Nov-14	3.5
Belpahar OCP	Darlipali Village Well	14-Jan-15	2.53
Belpahar OCP	Jurabaga Village Well	12-May-14	3.62
Belpahar OCP	Jurabaga Village Well	14-Aug-14	2.98
Belpahar OCP	Jurabaga Village Well	11-Nov-14	4.14
Belpahar OCP	Jurabaga Village Well	14-Jan-15	2.5
Belpahar OCP	Ubuda Village Well	12-May-14	4.17
Belpahar OCP	Ubuda Village Well	14-Aug-14	2.92
Belpahar OCP	Ubuda Village Well	11-Nov-14	3.87
Belpahar OCP	Ubuda Village Well	14-Jan-15	2.19

**Table : 145 Well Water**

Project	Name of the Station	Date of sampling	Water level
Lakhapur OCP	Darlipali Village Well	12-May-14	3.32
Lakhapur OCP	Darlipali Village Well	14-Aug-14	2.28
Lakhapur OCP	Darlipali Village Well	11-Nov-14	3.5
Lakhapur OCP	Darlipali Village Well	14-Jan-15	2.53
Lakhapur OCP	Jurabaga Village Well	12-May-14	3.62
Lakhapur OCP	Jurabaga Village Well	14-Aug-14	2.98
Lakhapur OCP	Jurabaga Village Well	11-Nov-14	4.14
Lakhapur OCP	Jurabaga Village Well	14-Jan-15	2.5
Lakhapur OCP	Ubuda Village Well	12-May-14	4.17
Lakhapur OCP	Ubuda Village Well	14-Aug-14	2.92
Lakhapur OCP	Ubuda Village Well	11-Nov-14	3.87
Lakhapur OCP	Ubuda Village Well	14-Jan-15	2.19

**Table : 146 Well Water**

Project	Name of the Station	Date of sampling	Water level
Lilari OCP	Darlipali Village Well	12-May-14	3.32
Lilari OCP	Darlipali Village Well	14-Aug-14	2.28
Lilari OCP	Darlipali Village Well	11-Nov-14	3.5
Lilari OCP	Darlipali Village Well	14-Jan-15	2.53
Lilari OCP	Jurabaga Village Well	12-May-14	3.62
Lilari OCP	Jurabaga Village Well	14-Aug-14	2.98
Lilari OCP	Jurabaga Village Well	11-Nov-14	4.14
Lilari OCP	Jurabaga Village Well	14-Jan-15	2.5
Lilari OCP	Ubuda Village Well	12-May-14	4.17
Lilari OCP	Ubuda Village Well	14-Aug-14	2.92
Lilari OCP	Ubuda Village Well	11-Nov-14	3.87
Lilari OCP	Ubuda Village Well	14-Jan-15	2.19

**Project : 147 Basundhara**

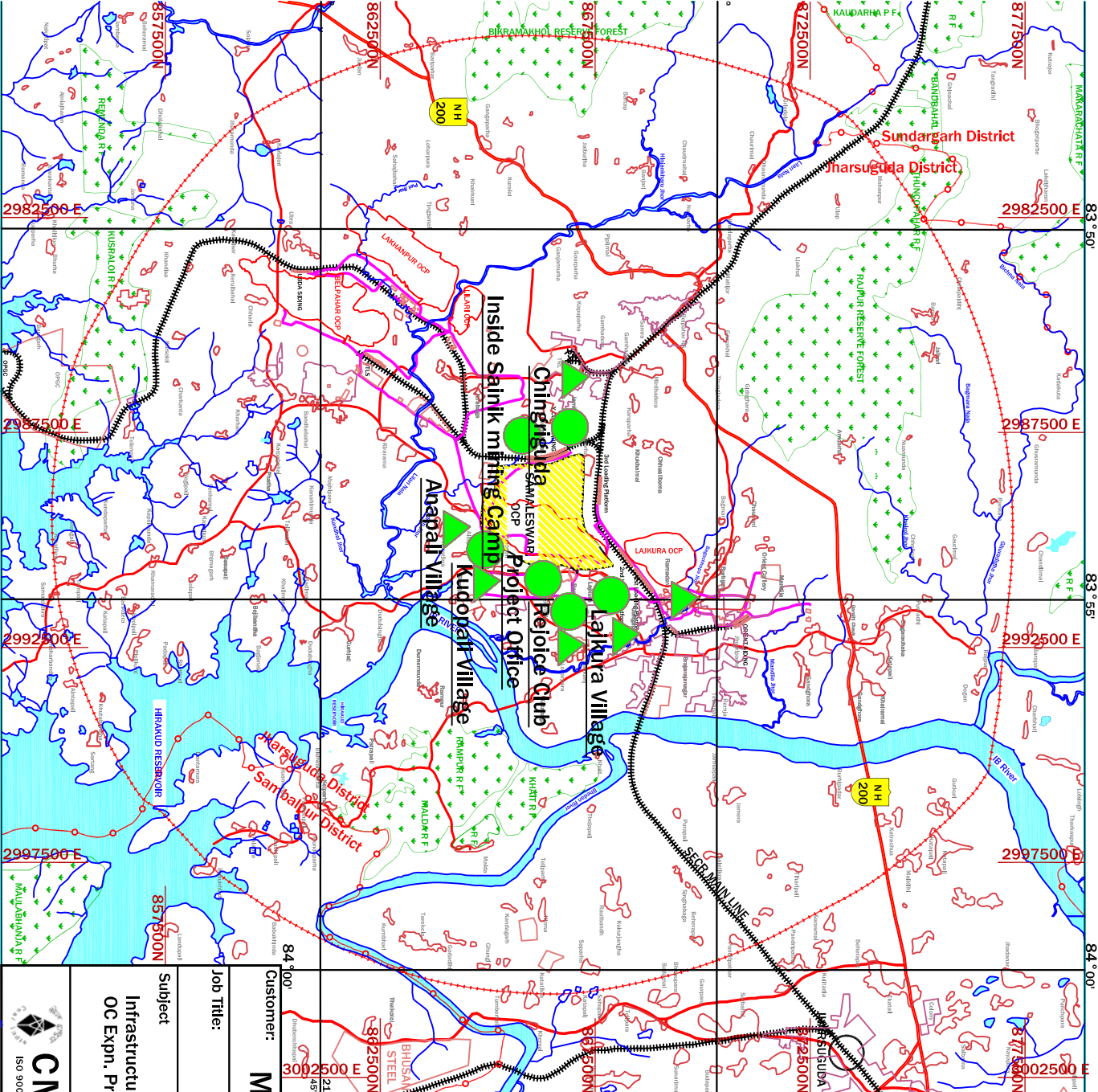
**Table : Well Water**

Project	Name of the Station	Date of sampling	Water level
Basundhara (W) OCP	Sardega Village Well	12-May-14	3.32
Basundhara (W) OCP	Sardega Village Well	14-Aug-14	2.04
Basundhara (W) OCP	Sardega Village Well	11-Nov-14	2.89
Basundhara (W) OCP	Sardega Village Well	14-Jan-15	2.16
Basundhara (W) OCP	Tikilipara Village Well	12-May-14	3.87
Basundhara (W) OCP	Tikilipara Village Well	14-Aug-14	2.98
Basundhara (W) OCP	Tikilipara Village Well	11-Nov-14	3.5
Basundhara (W) OCP	Tikilipara Village Well	14-Jan-15	2.34
Basundhara (W) OCP	Well at Bankibahal	12-May-14	3.87
Basundhara (W) OCP	Well at Bankibahal	14-Aug-14	2.89
Basundhara (W) OCP	Well at Bankibahal	11-Nov-14	3.53
Kulda OCP	Well at Balinga	12-May-14	3.84
Kulda OCP	Well at Balinga	14-Aug-14	2.92
Kulda OCP	Well at Balinga	11-Nov-14	4.11
Kulda OCP	Well at Balinga	14-Jan-15	2.07
Kulda OCP	Well at Kulda	12-May-14	4.11
Kulda OCP	Well at Kulda	14-Aug-14	3.26
Kulda OCP	Well at Kulda	11-Nov-14	4.45

**Project : 148 Orient**

**Table : Well Water**

<b>Project</b>	<b>Name of the Station</b>	<b>date of sampling</b>	<b>Water level</b>
Orient Area	AdibasiBasti Village Well	14-Aug-14	3.17
Orient Area	AdibasiBasti Village Well	11-Nov-14	2.31
Orient Area	AdibasiBasti Village Well	14-Jan-15	2.5
Orient Area	JopadiBasti Village Well	14-Aug-14	2.9
Orient Area	JopadiBasti Village Well	11-Nov-14	2.89
Orient Area	JopadiBasti Village Well	14-Jan-15	2.07



- Air & Noise Monitoring Station
- Roof of New PO
- Kudopali Village
- Lajkura Village
- Near Chingriguda Village
- Inside Sanik Mining Camp
- Near Rejoice Club in Hiltop Colony
- Drinking Water Monitoring Station
- Water from Intake raw water IWSS
- Chingriguda Village water
- Kudopali Village
- Lajkura Village
- Anapali Village
- Samleswari Colony Tap Water

- River/ Nallah/ Jhor/ Pond
- National Highway
- State Highway/MDR
- Railway line
- 10km Buffer Zone Boundary
- Mine Leasehold Boundary
- Forest Boundary
- State/District Boundary

Customer: **MAHANADI COALFIELDS LIMITED**

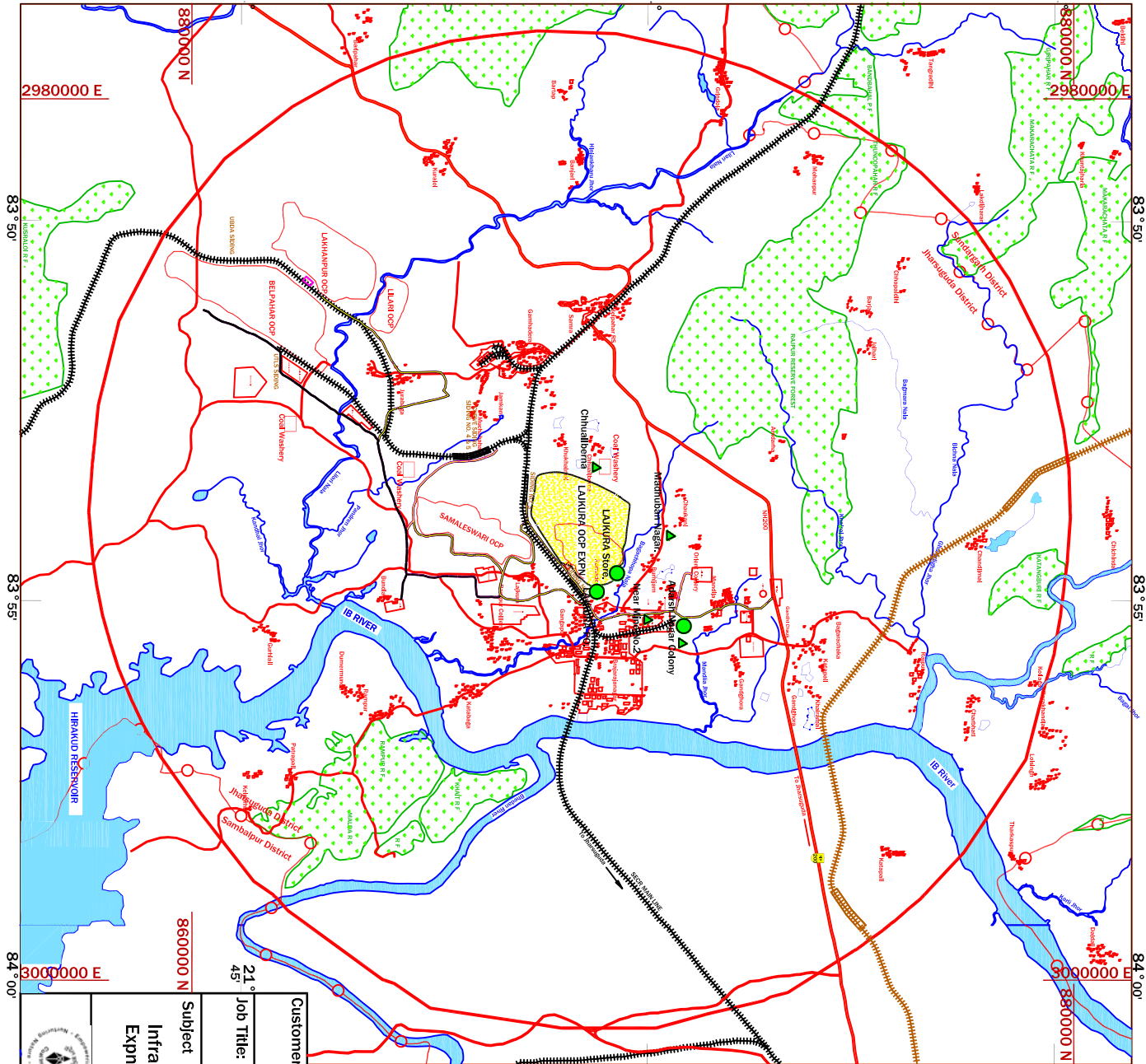
PLATE NO. IV

Job Title:		Job No.	750001
Subject	Infrastructure Map of Samaleswari OC Expn. Project (15.0 Mty)	Activity	Processed T. K. Das
		Checked	S. P. Mohanty
		Approved	S. R. Singh
		Desig.	SE (GIV)
		Signature	<i>T. K. Das</i>
		Date	19.06.2010
		Desig.	SR(Envy)
		Signature	<i>A. K. Samantary</i>
		Date	19.06.2010
		Desig.	HOD (GMT)
		Signature	<i>S. R. Singh</i>
		Date	19.06.2010
		Desig.	RD (R-III)
		Signature	<i>S. R. Singh</i>
		Date	19.06.2010

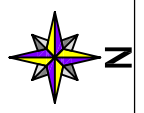
**CMPDI**  
ISO 9001:2000 Company

Drg.No. **R7** **GM** **T** **300153** Sheet **1 of 1** REV.No. **0**





- Air & Noise Monitoring Station**
- Near Project Office
  - Lajkura Store
  - Near Adarsh Nagar Colony
- Water Sampling Station**
- ▲ Madhuban Nagar Well Water
  - ▲ Treated Water At User end (Adarsh Nagar Colony)
  - ▲ Chhulberna Village well Water
  - ▲ Raw water of Mine No. 2



**INDEX**

- River/ Nallah/ Jhor/ Pond
- National Highway
- State Highway/MDR
- Railway line
- 10Km Buffer Zone Boundary
- Mine Leasehold Boundary
- Forest Boundary
- State/District Boundary

Note: Forest Boundaries Are Taken From Survey of India Toposheets

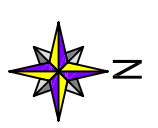
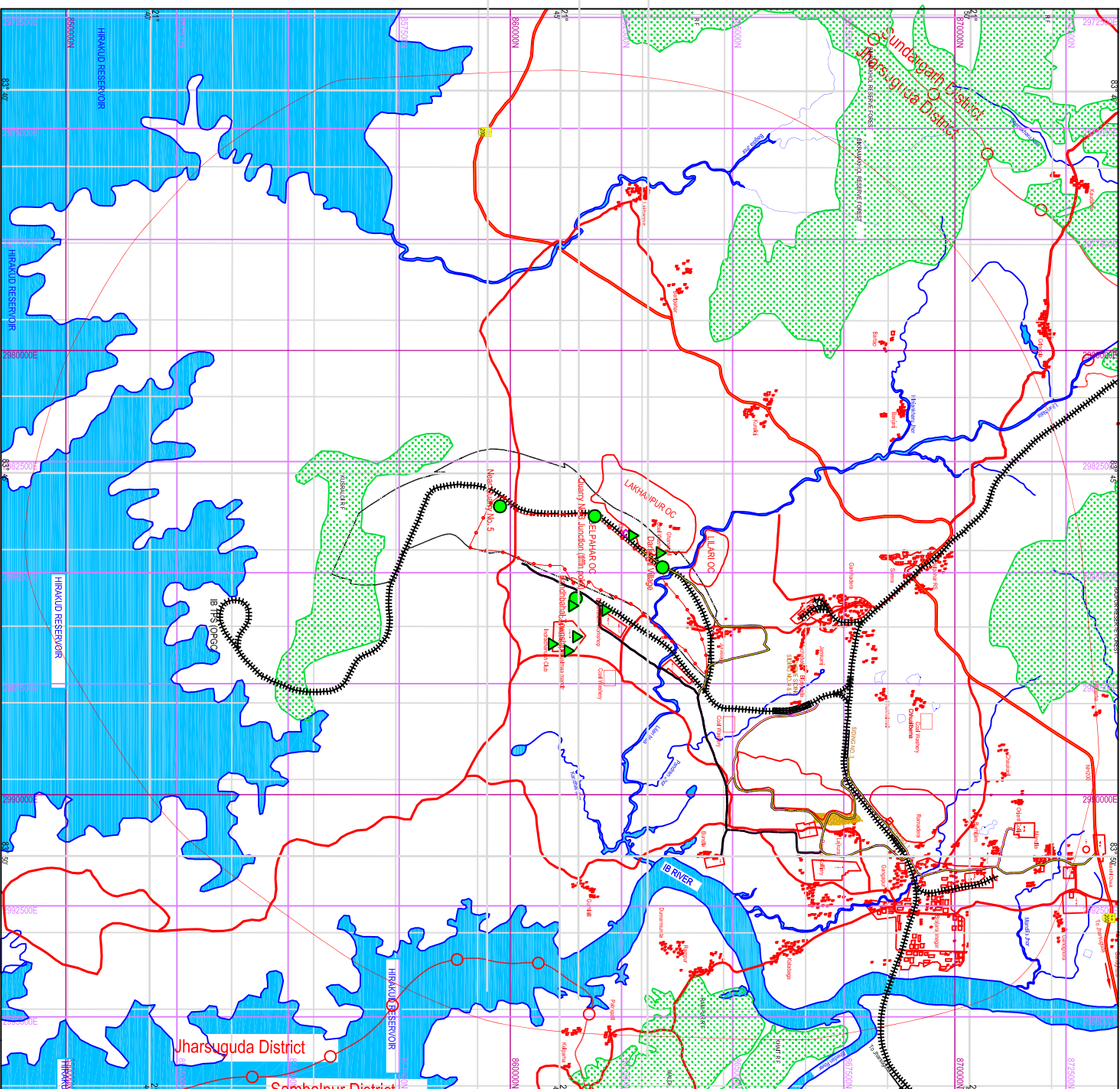
**MAHANADI COALFIELDS LIMITED**

PLATE NO. IV

Customer:	<b>MAHANADI COALFIELDS LIMITED</b>			Job No.	750001
Job Title:					
Subject:	Infrastructure Map of Lajkura OC Expn. Project (4.5 Mty)				
Activity	Name	Desig.	Signature	Date	
Processed	T. K. Das	SE (Civ.)	<i>T. K. Das</i>	23.03.2010	
Processed	A. K. Samantary	SE(Env.)	<i>A. K. Samantary</i>	23.03.2010	
Checked	S. P. Mohanty	HOD (GMT)	<i>S. P. Mohanty</i>	23.03.2010	
Approved	S. R. Singh	RD (R-VII)	<i>S. R. Singh</i>	23.03.2010	



Scale		Sheet	1 of 1
Dwg.No.	R7	GM/T	300117
		REV.No.	0



- Air & Noise Monitoring Station**
- Near MDTP
  - Bandbahal Township
  - Quarry No. 3 Junction (Tiffin Point)
  - Near Quarry No. 5
- Drinking Water Monitoring Station**
- ▲ Belpahar Colony Tap/Excavation Workshop/CHP Tap watter
  - ▲ Intake water of IWSS
  - ▲ Daripalli Village Well Water
  - ▲ Belpahar Integrated Township mausi maa madir outlet
  - ▲ Belpahar Integrated Township Indradhanush club outlet

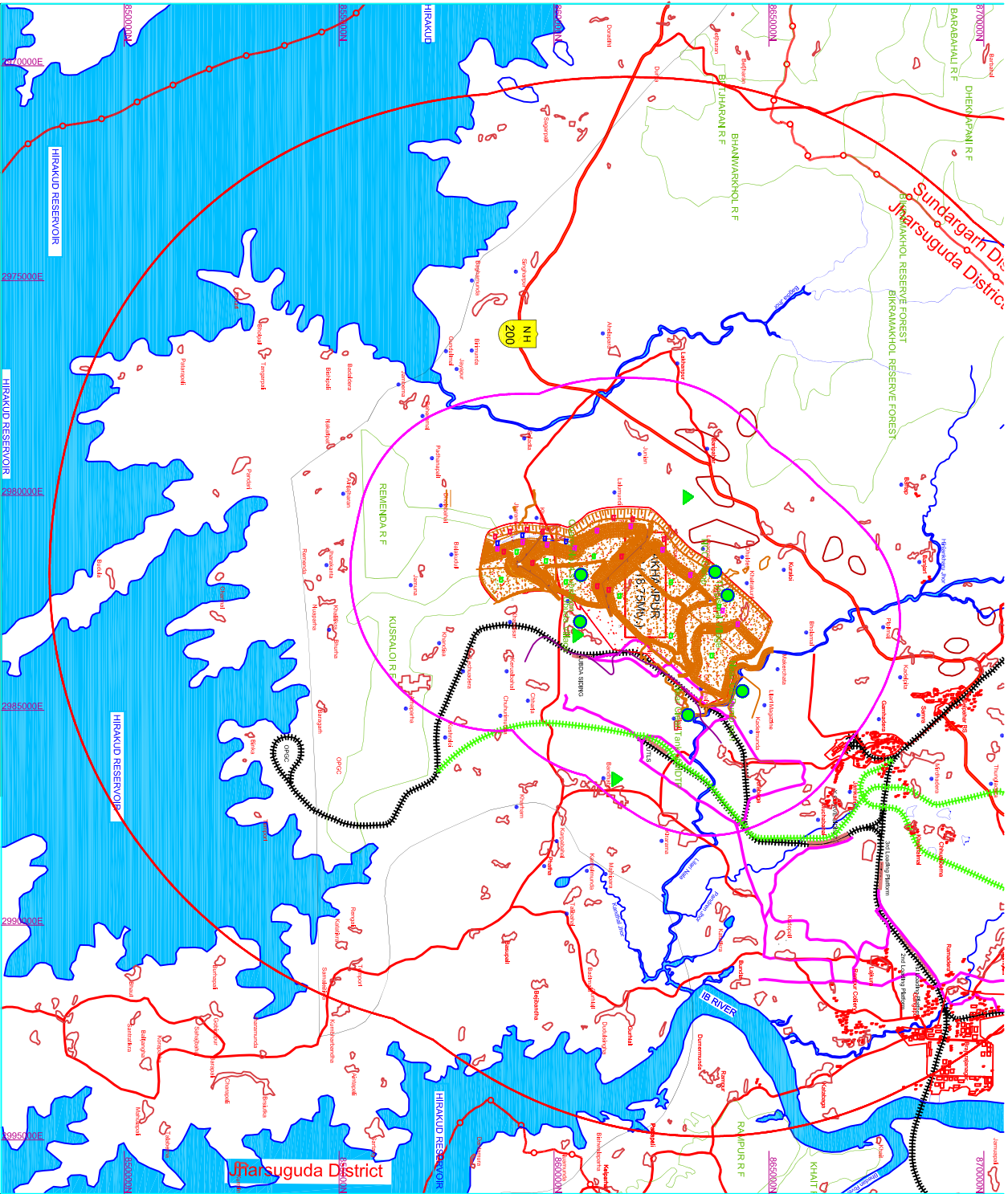
**LEGEND**

- COAL TRANSPORTATION ROAD
- OTHER ROAD
- NATIONAL HIGHWAY
- STATE HIGHWAY
- INFRASTRUCTURE
- BUILT UP AREA
- RIVER / NALLAH / NADI / JHOR
- BLOCK BOUNDARY
- MINE BOUNDARY
- RAILWAY LINE
- DISTRICT BOUNDARIES

N.B.: Reproduced from Old Plates

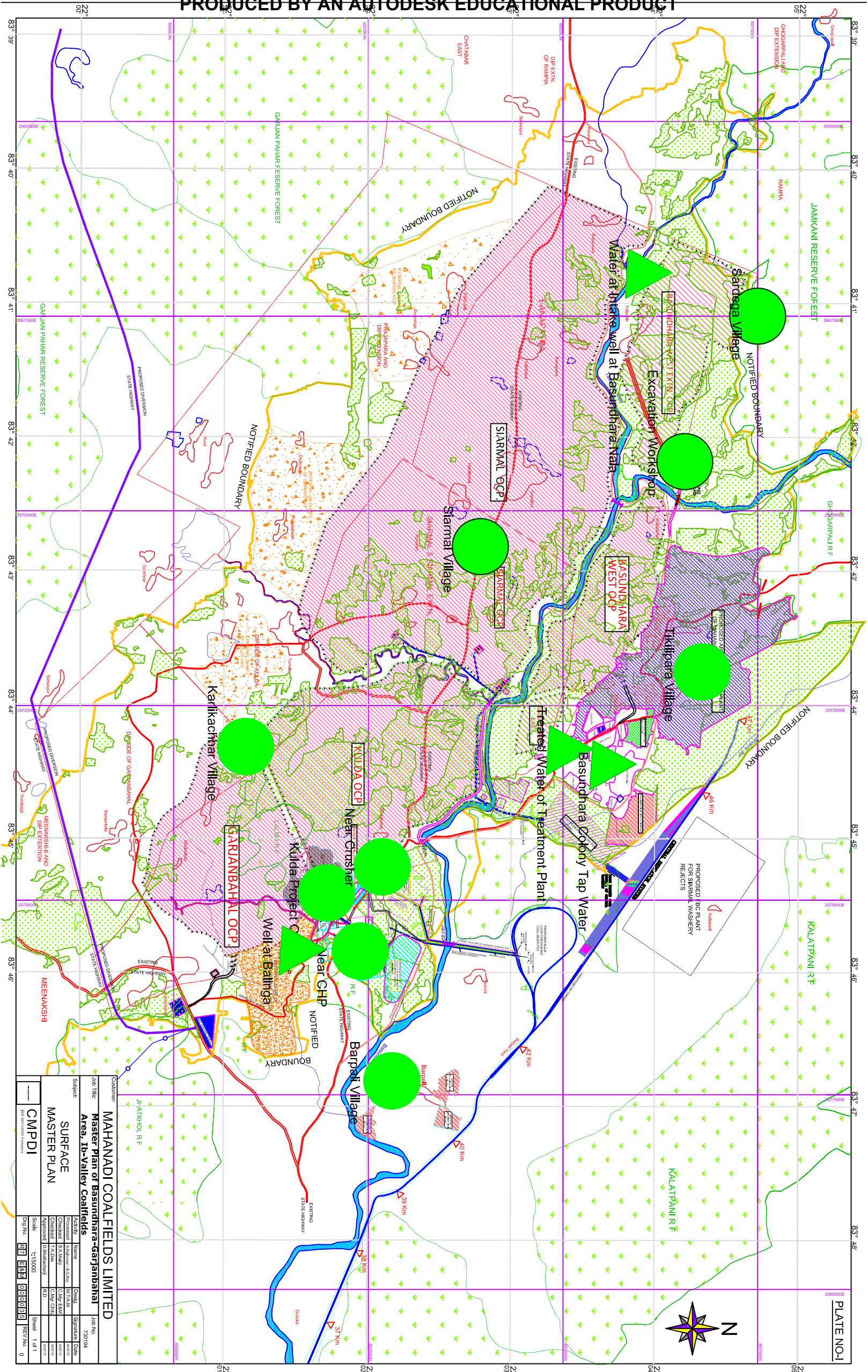
PLATE NO. IV

Customer:		<b>MAHANADI COALFIELDS LIMITED</b>	
Job Title		<b>BELPAHAR OPENCAST PROJECT (9.0 MTY)</b>	
Subject		<b>INFRASTRUCTURE MAP FOR BELPAHAR OCP</b>	
Activity	Name	Desig.	Signature
Processed	T. K. Das	SE(Ch.)	[Signature]
Processed	A. K. Samantary	SE(Env.)	[Signature]
Checked	S. P. Mohanty	HO(O/GMT)	[Signature]
Approved	S. R. Singh	R.D.	[Signature]
Scale	1:10000		Sheet
Dwg.No.	R7	G/MT	300083
REV.No.	0		REV.No.
Job No.	750001		1 OF 1



- Air & Noise Station
- Near OB Dump No.1
- NCC Camp
- Quarry No. 4 substation
- Ubuda Village
- Tingisimal Village
- Drinking Water Tank of MDTP
- Near Clear water Tank of MDTP
- ▲ Ubuda Village
- ▲ Bandhbahal Village

Customer: **MAHANADI COALFIELDS LIMITED**



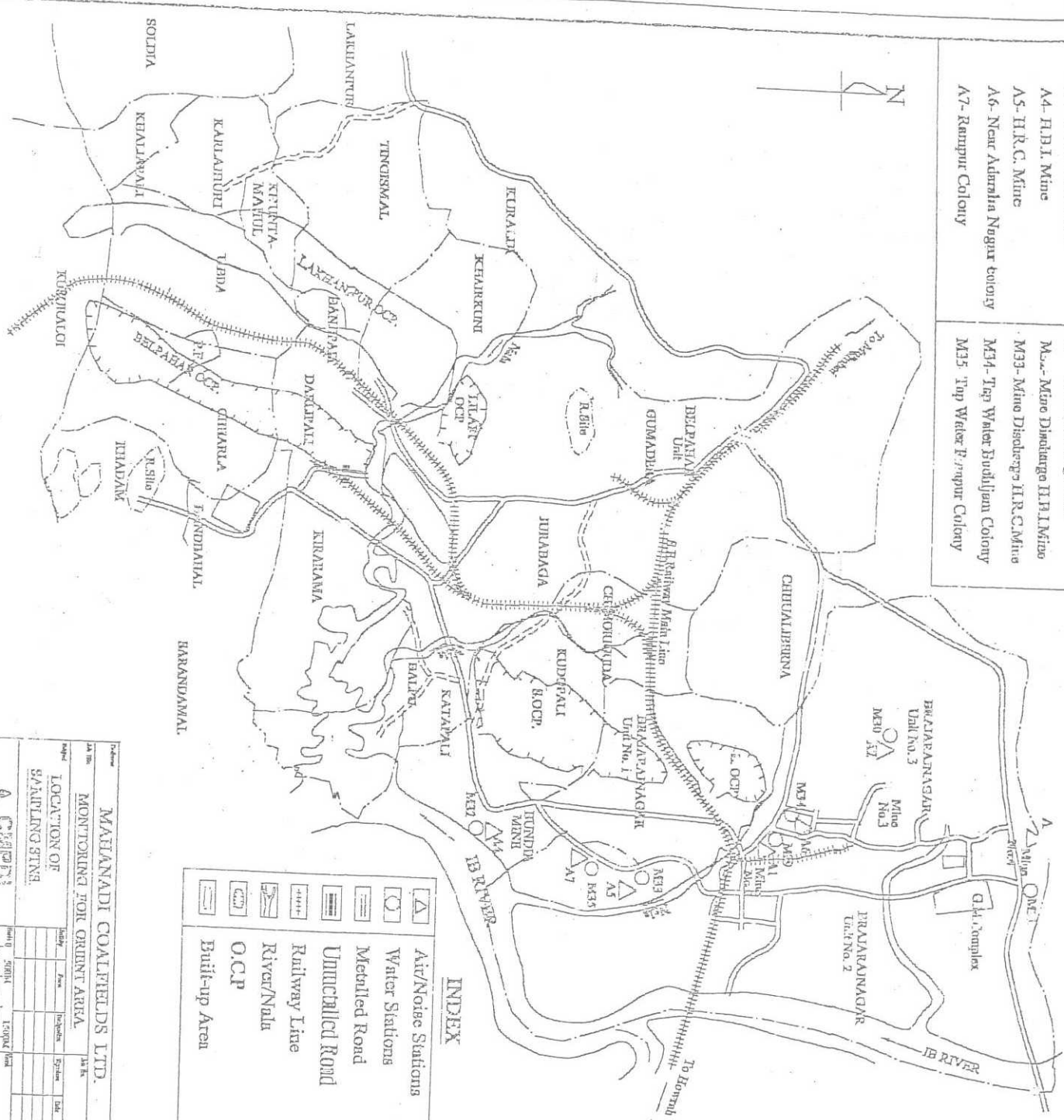
Customer: MAHANADI COALFIELDS LIMITED		Job No.:	78194
Job Title: Master Plan of Basundhara-garjanbahal Area, Ib-Valley Coalfields			
Subject: SURFACE MASTER PLAN			
Activity: CMPDI		Scale:	1:15000
Approved:	Checked:	Drawn:	Sheet: 1 of 1
REVISION:	DATE:	DATE:	DATE:
0			

LEGEND	
	NATIONAL HIGHWAY
	STATE HIGHWAY / MDR
	OTHER ROAD
	EXISTING INFRASTRUCTURE
	PROPOSED INFRASTRUCTURE
	SETTLEMENT
	RIVER / MALLAH / NADI / JHOR
	BLOCK BOUNDARY
	EXTERNAL OB DUMP
	EXISTING RAILWAY LINE
	PROPOSED RAILWAY LINE
	RAILWAY LINE AS PER P.R.
	SILO / BUNKERS
	BELT CONVEYOR
	33kV/133kV POWERLINE
	MINE BOUNDARY

- Air Monitoring station
- Barpaill Village
- Karlikachhar Village
- Tikilipara Village
- Starmal Village
- Near Kulda PO
- Near CHP
- Near Crusher
- Sardaga Village
- Excavation Workshop
- Water Monitoring Station
- Well at Balinga
- Basundhara Colony Tap Water
- Water at Intake Well at Basundhara Nala
- Treated water of Treatment Plant Basundhara

- A3 - Oriant Mine No.4
- A4 - H.B.I. Mine
- A5 - H.R.C. Mine
- A6 - Near Adaraha Negur Colony
- A7 - Rampur Colony

- M1 - Mine Discharge No.4
- M2 - Mine Discharge H.I.M. Mine
- M3 - Mine Discharge H.R.C. Mine
- M34 - Tap Water Budhijan Colony
- M35 - Tap Water Rampur Colony



**INDEX**

	Air/Noise Stations
	Water Stations
	Metalled Road
	Unmetalled Road
	Railway Line
	River/Naik
	O.C.P.
	Built-up Area

**MAHANADI COALFIELDS LTD.**

**MONITORING FOR ORIENT AREA**

**LOCATION OF SAMPLING STNS.**

Stn No.	Stn Name	Depth	Time	Temperature	System	Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

FIELD OFFICE