

Job No.750001

**Annual Environmental Monitoring Report
of
Ib Valley Coalfields
For
2015-16**



Mahanadi Coalfields Limited

(A Subsidiary of Coal India Ltd.)

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

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INTRODUCTION

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 latter 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 Dept. 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 extn. 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.

In the souther part of IB Valley Coalfield five opencast and five underground mines are present out of which Lakhanpur OCP expansion (15 Mty), Belpahar (3.5 Mty), Lilari OCP (0.80 Mty) all are sanctioned phase wise from 1987 to 2008. All the above three mines are producing 28 Mty now. Two mines Lajkura (6 Mty) and Samleswari OCP (12 Mty) sanctioned in between 1983 and 2011 and now producing at together 16.50 Mty. All the above project is under Rampur track Out of five underground mines four mines are in operation and producing all together 0.90 Mty.

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 the mine has been expanded after sanctioned in March 2011.

Kulda OCP (10 Mty) and there after Kulda expansion OCP of (15 mty) was sanctioned in January 2015 and June 2015 respectively Kulda OCP is now producing 8.0 Mty Garjanbahal OCP (10 Mty) has been sanctioned in November 2014 by CIL, which is yet to be in operation. PR of Basundhara west extension OCP (Mty) was formulated and sanctioned in May 2014 in the properties of Chatundhara geological block. All the above project is under Gopalpur track.

LOCATION

Ib-valley coalfield is a part of large synclinal Gondwana basin of Raigarh Himgir and Chhattisgarh coalfields and constitutes the south-eastern extension of the Sone-Mahanadi master basin bounded by latitudes: 21°30'00" to 22°06'00" N and longitudes: 83°32'00" to 84°10'00"E.

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 all weathered black top road connecting Sundargarh 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 black top 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.

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 9°C to 49°C. 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.

LIST OF ENVIRONMENTAL QUALITY MONITORING STATIONS

Table 1: List of Air Quality Monitoring Stations

Sl. No.	Area	Project	Air Monitoring Station
1.	Ib Valley	Samleswari	Roof of New Project office
2.			Kudopali Village
3.			Lajkura Village
4.			Near Chingriguda Village
5.			Inside Sainik Mining Camp Premises
6.			Near Re-Joice Club in Hilltop Colony
7.		Lajkura	Near Project office
8.			Mine station no.1 (N-W side)
9.			Near Adarsh nagar colony
10.			Mine station no. 2 (S-W side)
11.	Lakhanpur	Lilari	Near Magazine house
12.			Near Old coal stock yard
13.		Lakhanpur	Near OB Dump no.1
14.			Near Sadhbav camp
15.			Near MGR railway sidig office
16.			Ubuda village
17.			Tingismal village
18.			West side of Quarry 3
19.		Belpahar	Near MDTP
20.			Bandbahal township/BITP
21.			Quarry 3 junction (tiffin point)
22.			Near Quarry no. 5
23.	Basundhara	Kulda	Farakbahal village
24.			Karlikachhar village
25.			Tikilipara village
26.			Balinga Market
27.			Near Tumulia
28.		Basundhara	Khamarpara
29.			Near CHP
30.			Near Embankment
31.	Orient	Orient	Orient Mine No.2
32.			Orient Mine No.3
33.			Orient Mine No.4
34.			HBI Mine
35.			HRC Mine
36.			Rampur Colony

Table 2: List of Noise Level Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	Ib-Valley	Samleswari	Roof of New Project office
2.			Kudopali Village
3.			Lajkura Village
4.			Near Chingriguda Village
5.			Inside Sainik Mining Camp Premises
6.			Near Re-Joice Club in Hilltop Colony
7.		Lajukura	Near Project office
8.			Madhuban nagar
9.			Near Adarsh nagar colony
10.			Chhualiberna
11.	Lakhanpur	Lilari	Near Magazine house
12.			Near Old coal stock yard
13.		Lakhanpur	Near OB Dump no.1
14.			Towards N-W side of Quarry no.1
15.			Quarry 3 Sub station
16.			MGR Railway Siding office
17.			Tingismal village
18.		Belpahar	Near MDTP
19.			Bandbahal township/BIT
20.			Quarry 3 junction (tiffin point)
21.			Near Quarry no. 5
22.	Basundhara	Kulda	Farakbahal village
23.			Near Balinga Market
24.		Basundhara (W)	Khamarpara
25.			Near Embankment
26.			Near CHP
27.	Orient	Orient	Orient mine no.2
28.			Orient mine no. 3
29.			Orient mine no. 4
30.			HBI mine
31.			HRC mine
32.			Rampur colony

Table 3: List of Effluent (22 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	IB-valley	Samaleswari	Outlet from Sedimentation pond
2.		Lajkura	Mine discharge water
3.	Lakhanpur	Liliari	Outlet from O&G trap
4.		Lakhanpur	Outlet from Sedimentation pond
5.		Belpahar	Outlet from Sedimentation pond
6.	Basundhara	Kulda	Final discharge Point of Mine
7.		Basundhara	Outlet from settling pond, Near Kanika Rly.sdg.
8.	Orient	Orient	Mine disch. of Mine no.2
9.			Mine disch. of Mine no.3
10.			Mine disch. of Mine no.4
11.			Mine disch. of HBI mine
12.			Mine disch. of HRC mine

Table 4: List of Effluent (4 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	IB-valley	Samaleswari	Outlet from sedimentation tank
2.			Oil & Grease trap Outlet
3.			100m u/s of point of confluence of natural mine water drain to Pandren Nala
4.			100m d/s of point of confluence of natural mine water drain to Nala flowing on north side
5.			50m before the point of confluence of natural drain of mine pumped water to Pandren Nala
6.		Lajkura	Oil & Grease trap Outlet
7.			Mine discharge Water
8.			100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on north side
9.			100m d/s of point of confluence of natural mine water drain to Baghmara Nala flowing on north side
10.			50m before the point of confluence of natural drain of mine pumped water to Baghmara Nala flowing on North side
11.	Lakhanpur	Central hospital	Outlet of drain
12.		Liliari	Oil & Grease trap Outlet
13.		Lakhanpur	Outlet of sedimentation Pond
14.			Oil & Grease trap no 1 Outlet
15.			Oil & Grease trap no 2 outlet
16.			100m u/s of point of confluence of natural mine water drain to Lilari Nala & Ib river
17.			100m d/s of point of confluence of natural mine water drain to Lilari Nala & Ib river
18.			50m before the point of confluence of natural drain of mine pumped water to Lilari Nala & Ib river
19.		Belpahar	Oil & Grease trap Outlet
20.			Outlet from sedimentation pond
21.			100m u/s of point of confluence of natural mine water drain to Lilari Nala & Ib river
22.			100m d/s of point of confluence of natural mine water drain to Lilari Nala & Ib river
23.			50m before the point of confluence of natural drain of mine pumped water to Lilari Nala & Ib river
24.	Basundhara	Kulda	Final discharge point of mine
25.			Inlet to settling pond
26.			Outlet to settling pond
27.			100m u/s of point of confluence of natural mine water drain to Basundhara Nala
28.			100m d/s of point of confluence of natural mine water drain to Basundhara Nala
29.			50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala
30.		Basundhara	Outlet from settling pond near Kanika Rly Siding
31.			Settling tank/abandoned quarry of Basundhara E
32.			Oil & Grease trap Outlet
33.			100m u/s of point of confluence of natural mine water drain to Basundhara Nala
34.			100m d/s of point of confluence of natural mine water drain to Basundhara Nala
35.			50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala
36.	Orient	Orient	Mine discharge of Mine-2
37.			Mine discharge of Mine-3
38.			Mine discharge of Mine-4
39.			Mine Discharge of HBI
40.			Mine discharge of HRC

Table 5: List of Effluent (3 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	IB-valley	Samaleswari	DETP/STP outlet
2.	Lakhanpur	Lakhanpur	DETP/STP outlet

Table 6: List of Effluent (1 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	IB-valley	Samaleswari	Mine sump water
2.		Lajkura	Mine sump water
3.	Lakhanpur	Liliari	Mine sump water
4.		Lakhanpur OCP	Mine sump water
5.		Belpahar	Mine sump water

Table 7: List of Drinking Water Quality Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	Ib-Valley	Samaleswari	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.			Samleswari Colony tap water
8.		Lajkura	Madhuban nagar well water
9.			Treated water at user end(Adarsh nagar colony)
10.			Raw water of mine no.2
11.			Chauliberna village well water
12.	Lakhanpur	Liliari	Jurabaga village well water
13.		Lakhanpur	Ubuda village tubewell
14.			khairkuni village tubewell
15.			Bandbahal tap water
16.			LKP canteen tap water
17.		Belpahar	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 Mausī maa mandir outlet
23.			Belpahar Integrated township-Indradhanush club outlet
24.	Basundhara	Kulda	Well at Tumulia
25.			Filter plant
26.		Basundhara	Basundhara colony tap water
27.			Water at intake well basundhara nulla(half yearly)
28.	Orient	Orient	Tap water at Budhijaam colony
29.			Tap water at Rampur colony
30.	MCL(HQ)	MCL(HQ)	Inlet to water treatment plant(Anand Vihar)
31.			Outlet of water treatment plant(Anand Vihar)
32.			Tap water DAV school(Anand Vihar)
33.			Tap water at corporate office (Jagriti Vihar)

Table 8: List of Ground Water Level Stations

Sl. No.	Area	Project	Name of the station
1.	lb valley	Samleswari	Chingriguda Village Well
2.			Anapali Village Well
3.			Lajkura Village Well
4.			Kudopali Village Well
5.		Lajkura	Chhualiberna Village Well
6.			Madhuban nagar Well
7.	Lakhanpur	Lilari	Jurabaga Village well
8.		Lakhanpur	Ubuda Village Well
9.		Belpahar	Darlipali Village Well
10.	Kulda	Kulda	Well at Tumulia
11.			Well at Kulda
12.		Basundhara	Tiklipada Village Well
13.	Orient	Orient	Sardega Village Well
14.			Chingriguda Village Well
15.			Anapali Village Well
16.			Lajkura Village Well
17.			Kudopali Village Well
18.			Chhualiberna Village Well
19.			Madhuban nagar Well
20.			Adibasi Basti village well
21.			Jhopadi Basti village well

Table 9: List of Surface Water Monitoring Stations

Sl. No.	Area	Project	Name of the station
1.	Ib-Valley	Samaleswari	Pandren Jhor stream near Muchabahal village u/s of SOCP
2.			Pandren Jhor stream before confluence point with Lilari Nallah
3.		Lajkura	Bagachoppa jhor Bagmara Village as u/s for LOCP
4.			Bagachoppa jhor Gangapur Village as d/s for LOCP
5.			Bagachoppa jhor before confluence point with Ib River
6.		Lakhanpur	Pulijhor stream near Tingismal Village as u/s for Lakhanpur OCP
7.			Pulijhor stream near Darlipalil Village before confluence to Lilari nallah as d/s water of Lakhanpur OCP
8.			Lilari nallah at bridge point before joining Ib river near Dudolsingha village
9.			Pond water at Samra village
10.		Belpahar	Lilari nallah near Gouraparha village at bridge point of NH200as u/s water for Lakhanpur OCP and Belpahar OCP
11.			Lilari nallah near Kirarama village as d/s of Lakhanpur OCP and Belpahar OCP
12.			Ib river near Dumermunda village as d/s of the coalfield before joining to Hirakud reservoir
13.			Hirakud reservoir for impact assessment of the coalfield
14.		Kulda	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP
15.			Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP
16.			Basundhara river near Kusura village as d/s water of Kulda OCP
17.			Pond water at Gopalpur village
18.			Pond water at Gaddwar village
19.		Basundhara	Basundhara river near Kulaparha village as u/s water for Basundhara (W) OCP
20.			Chaturdhara river/Barhajharia nala as u/s water for Basundhara Expn OCP
21.	Orient	Orient	Ib river near Charbhati village as u/s water for Ib Valley Coalfield
22.			Basundhara river near Degan village before confluence to Ib river
23.			Ib river bridge of NH200 at Gondghora village as u/s of Orient area
24.			Bhedan river before confluence point with Ib river
25.			Ib river near Kotarbaga village at bridge point
26.			Bagachoppa jhor Gangapur Village as u/s for Rampur colliery
27.			Pond water at Burhijam village

FREQUENCY OF MONITORING

Table 10: Frequency of Monitoring

Sl. No.	Parameters	Sampling Frequency
1.	Air (5 Parameter) Quality Monitoring	Fortnightly
2.	Noise level (Day & Night) Monitoring	Fortnightly
3.	Effluent (1 Parameter) Quality Monitoring	Quarterly
4.	Effluent (4 & 3 Parameter) Quality Monitoring	Fortnightly/Monthly/ Quarterly
5.	Effluent (22 Parameter) Quality Monitoring	Yearly
6.	Drinking Water(26 Parameter) Quality Monitoring	Monthly
7.	Ground Water Level Monitoring	Quarterly
8.	Surface Water (21 Parameter) Quality Monitoring	Quarterly

METHODOLOGY AND INSTRUMENTS USED

Table 11: Methodology & Instruments used for Air Quality Analysis

Sl. No.	Parameters	Method	Instruments
1.	SPM and PM ₁₀	IS:5182 (Part-23):2006 Cyclonic Flow Technique, Gravimetric Method	Respirable Dust Sampler, Electronic Balance
2.	PM _{2.5}	Guideline for the measurement of Ambient Air Pollutants, Volume –I, May 2011	PM _{2.5} Sampler, Micro Balance
3.	SO ₂	IS:5182 (Part-2):2001, Improved West and Gaeke Method	Spectrophotometer, Respirable Dust Sampler with Impinger Box
4.	NO _x	IS:5182 (Part-6):2006, Jacob & Hoccheiser Modified Method	Spectrophotometer, Respirable Dust Sampler with Impinger Box

Table 12: Methodology & Instruments used for Noise level Monitoring

Sl. No.	Parameters	Method	Instruments
1.	Ambient Noise Level dB (Leq)	Protocol for Ambient Level Noise Monitoring, July 2015, CPCB	Weighted sound level i.e. dB(A) Meter

Table 13: Methodology & Instruments used for Drinking/Surface/Effluent Water Quality Analysis

Sl. No.	Parameters	Method	Instruments
Physical Parameter			
1.	PH	IS 3025 (PART 11) : 1983 , Electrometric	pH meter
2.	Turbidity	IS 3025 (PART10) : 1984, Nephelometric	Nepheloturbidity meter
3.	Temperature	IS 3025 (PART 09) : 1984, Thermometric	Temperature Probe
4.	Taste	IS 3025 (PART 07) : 1984, Physical	-
5.	Odour	IS 3025 (PART 05) : 1983 , Physical	-
6.	Colour	IS: 3025 (Part - 4): 1983, Visual Comparision	-
7.	Total suspended solids	IS 3025 (PART 17) : 1984, Gravimetric	Hot Air Oven, Electronic balance
8.	Total dissolved solids	IS 3025 (PART 16) : 1984, Gravimetric	Hot Air Oven, Electronic balance
In organic Parameters			
9.	Nitrate	APHA 22nd Edition	Microprocessor based spectrophotometer- DR 2800
10.	Nitrate nitrogen	APHA 22nd Edition	Microprocessor based spectrophotometer- DR 2800
11.	Ammonical Nitrogen	IS 3025 (PART 34) : 1988,	Microprocessor based spectrophotometer- DR 2800
12.	Total kjeldhal Nitrogen	IS 3025 (PART 34) : 1988	Microprocessor based spectrophotometer- DR 2800
13.	Total residual chlorine	IS 3025 (PART 26) : 1986	Microprocessor based spectrophotometer- DR 2800
14.	Calcium	IS 3025 (PART 40) : 1991,EDTA Titrimetric Method	Burette, Pipette
15.	Chloride	IS 3025 (PART 32) : 1988,	Microprocessor based spectrophotometer- DR 2800
16.	Fluoride	APHA 22nd Edition , IS 3025(Pat 60):SPANDS	Microprocessor based spectrophotometer- DR 2800
17.	Total Alkalinity	IS 3025 (PART 23) : 1986, Titration Method	Burette, Pipette
18.	Total hardness	IS 3025 (PART 21) : 1983, EDTA Volumetric Method	Burette, Pipette
19.	Dissolved phosphate	APHA 22nd Edition , IS 3025 (Pat 31): 1988	Microprocessor based spectrophotometer- DR 2800
20.	DO	IS 3025 (PART 38) : 1989, Winkler Azide Method	Burette, Pipette
21.	Sulfate	APHA 22nd Edition , IS 3025(Part 24): 1986, Turbidity Method	Microprocessor based spectrophotometer- DR 2800
22.	Sulfide	APHA 22nd Edition , IS 3025(Part 29):1986	Microprocessor based spectrophotometer- DR 2800
Trace Metals			
23.	Arsenic	APHA 22nd Edition , AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
24.	Lead	APHA 22nd Edition , AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
25.	Hexavalent chromium	APHA 22nd Edition	DR 2800
26.	Total Chromium	IS 3025 (PART 52) : 2003,AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
27.	Copper	IS 3025 (PART 42) : 1992, AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
28.	Zinc	IS 3025 (PART 49) : 1994, AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
29.	Selenium	IS 3025 (PART 56) : 2003,AAS-VGA Method	Atomic Absorption Spectrophotometer(AAS)
30.	Cadmium	APHA 22nd Edition ,AAS-GTA Method	Atomic Absorption Spectrophotometer(AAS)
31.	Nickel	IS 3025 (PART 54) : 2003,AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
32.	Manganese	APHA 22nd Edition ,AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
33.	Iron	IS 3025 (PART 53) : 2003,AAS-Flame Method	Atomic Absorption Spectrophotometer(AAS)
34.	Boron	APHA 22nd Edition , Carmine Method	DR 2800
General Organics & Trace Organics			
35.	COD	APHA 22nd Edition ,Titration Method	COD Digester
36.	O&G	IS 3025 (PART 39) : 1991, Partition gravimetric method	Hot Air Oven, Electronic Balance
37.	BOD	IS 3025 (PART 44) : 1993.3 day incubation	BOD Incubator
38.	Phenolics	APHA 22nd Edition ,4- Amino antipyrine Method	-
Microbiological Tests			
39.	Total coliform	MPN Test	LTEK MPN Kit

TABLES FOR AIR QUALITY DATA

Project: Samleswari OCP Monitoring Station: Inside Sainik Mining camp premises

Table 14

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	298	130	17	20	55	East to west hot & sunny
11-May-15	340	130	16	21	64	West to east hot & sunny
25-May-15	357	138	17	20	61	East to west hot & sunny
08-Jun-15	274	139	15	19	41	East to west hot & sunny
23-Jun-15	240	97	14	18	51	East to west hot & sunny evening rainfall
09-Jul-15	252	105	13	17	53	west to east sunny
23-Jul-15	215	96	14	17	41	west to east hot & sunny heavy rainfall
10-Aug-15	219	101	13	16	42	West to east hot & sunny evening rainfall
24-Aug-15	214	97	14	17	40	West to east hot & sunny evening rainfall
10-Sep-15	253	103	15	18	42	West to east hot & sunny evening rainfall
24-Sep-15	260	110	13	18	45	West to east hot & sunny evening rainfall
12-Oct-15	257	153	12	16	84	West to east hot & sunny
27-Oct-15	283	220	15	19	110	West to east hot & sunny
09-Nov-15	598	290	17	22	131	West to east hot & sunny
24-Nov-15	430	190	18	21	124	West to east hot & sunny
08-Dec-15	520	250	17	21	107	West to east hot & sunny
23-Dec-15	285	192	14	18	110	West to east hot & sunny Evening Rainfall
11-Jan-16	595	280	15	18	96	West to east sunny
25-Jan-16	575	196	19	22	90	West to east sunny
08-Feb-16	473	299	16	19	125	West to east sunny
23-Feb-16	326	201	13	17	117	West to east sunny
09-Mar-16	540	242	15	18	139	West to east sunny
25-Mar-16	510	205	10	13	46	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	598.00	299.00	19.00	22.00	139.00	
Minimum	214.00	96.00	10.00	13.00	40.00	
Mean	361.48	172.35	14.87	18.48	78.87	
95 Percentile	593.00	289.00	17.90	21.90	130.40	
98 Percentile	596.68	295.04	18.56	22.00	135.48	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

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

Project: Samleswari OCP
Monitoring Station: Kudopali village

Table 15

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	240	118	14	18	42	East to west hot & sunny
11-May-15	210	97	14	17	38	West to east hot & sunny
25-May-15	219	104	13	16	41	East to west hot & sunny
08-Jun-15	227	99	14	17	40	East to west hot & sunny
23-Jun-15	193	88	13	16	35	East to west hot & sunny evening rainfall
09-Jul-15	197	81	12	15	34	west to east sunny
23-Jul-15	162	68	11	14	31	west to east hot & sunny heavy rainfall
10-Aug-15	137	57	11	14	33	West to east hot & sunny evening rainfall
24-Aug-15	170	63	13	15	37	West to east hot & sunny evening rainfall
10-Sep-15	183	71	12	16	38	West to east hot & sunny evening rainfall
24-Sep-15	170	69	11	14	36	West to east hot & sunny evening rainfall
12-Oct-15	439	137	16	21	61	West to east hot & sunny
27-Oct-15	401	173	15	18	56	West to east hot & sunny
09-Nov-15	443	210	15	20	90	West to east hot & sunny
24-Nov-15	340	210	16	21	64	West to east hot & sunny
08-Dec-15	346	145	10	15	86	West to east hot & sunny
23-Dec-15	208	148	13	16	120	West to east hot & sunny Evening Rainfall
11-Jan-16	464	214	11	16	86	West to east sunny
25-Jan-16	426	220	15	20	72	West to east sunny
08-Feb-16	433	168	16	19	116	West to east sunny
23-Feb-16	463	235	15	19	90	West to east sunny
09-Mar-16	570	281	16	19	101	West to east sunny
25-Mar-16	323	209	11	14	117	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	570.00	281.00	16.00	21.00	120.00	
Minimum	137.00	57.00	10.00	14.00	31.00	
Mean	302.78	141.96	13.35	16.96	63.65	
95 Percentile	463.90	233.50	16.00	20.90	116.90	
98 Percentile	523.36	260.76	16.00	21.00	118.68	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Samleswari OCP
Monitoring Station: Lajkura Village

Table 16

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	233	120	14	17	36	West to east hot & sunny
08-May-15	224	93	15	18	41	East to west hot & sunny
22-May-15	218	109	15	18	44	East to west hot & sunny
05-Jun-15	239	129	14	18	42	East to west hot & sunny
22-Jun-15	218	109	15	18	39	East to west hot & sunny evening rainfall
08-Jul-15	220	106	14	17	37	East to west sunny
22-Jul-15	185	90	13	16	38	East to west hot & sunny heavy rainfall
07-Aug-15	189	73	12	15	39	East to west hot & sunny evening rainfall
21-Aug-15	193	84	11	14	41	East to west hot & sunny evening rainfall
09-Sep-15	202	79	13	16	36	East to west hot & sunny evening rainfall
23-Sep-15	178	81	12	16	33	East to west hot & sunny evening rainfall
09-Oct-15	506	232	19	22	144	East to west hot & sunny
26-Oct-15	377	214	16	19	99	East to west hot & sunny
06-Nov-15	550	260	18	22	95	East to west hot & sunny
23-Nov-15	290	140	14	19	67	East to west hot & sunny
07-Dec-15	489	269	12	17	120	East to west hot & sunny
22-Dec-15	249	169	16	19	54	East to west hot & sunny Evening Rainfall
08-Jan-16	575	245	12	18	102	East to west cloudy
22-Jan-16	533	235	16	20	89	East to west sunny
05-Feb-16	514	221	15	18	84	East to west sunny
22-Feb-16	438	273	14	16	111	East to west sunny
08-Mar-16	419	276	14	17	144	East to west sunny
22-Mar-16	586	246	16	19	94	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	586.00	276.00	19.00	22.00	144.00	
Minimum	178.00	73.00	11.00	14.00	33.00	
Mean	340.22	167.52	14.35	17.78	70.83	
95 Percentile	572.50	272.60	17.80	21.80	141.60	
98 Percentile	581.16	274.68	18.56	22.00	144.00	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Samleswari OCP
Monitoring Station: Near Chingriguda village
Table 17

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	192	98	13	17	35	East to west hot & sunny
12-May-15	236	104	14	18	45	East to west hot & sunny
26-May-15	197	91	14	17	39	West to east hot & sunny
08-Jun-15	180	81	13	17	32	East to west hot & sunny
23-Jun-15	187	90	12	15	33	East to west hot & sunny evening rainfall
09-Jul-15	183	82	13	16	34	west to east sunny
23-Jul-15	176	71	11	15	28	west to east hot & sunny heavy rainfall
10-Aug-15	168	70	11	14	32	West to east hot & sunny evening rainfall
24-Aug-15	144	66	12	15	28	West to east hot & sunny evening rainfall
10-Sep-15	168	69	11	14	33	West to east hot & sunny evening rainfall
24-Sep-15	172	80	14	17	37	West to east hot & sunny evening rainfall
12-Oct-15	403	277	15	20	105	West to east hot & sunny
27-Oct-15	292	221	14	18	108	West to east hot & sunny
09-Nov-15	590	280	17	21	123	West to east hot & sunny
24-Nov-15	370	180	17	20	94	West to east hot & sunny
08-Dec-15	473	223	10	14	112	West to east hot & sunny
23-Dec-15	307	126	12	16	108	West to east hot & sunny Evening Rainfall
11-Jan-16	553	283	16	19	92	West to east sunny
25-Jan-16	495	173	18	21	76	West to east sunny
08-Feb-16	581	299	20	22	80	West to east sunny
23-Feb-16	354	201	12	15	120	West to east sunny
09-Mar-16	436	254	10	12	128	West to east sunny
25-Mar-16	542	246	12	15	69	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	590.00	299.00	20.00	22.00	128.00	
Minimum	144.00	66.00	10.00	12.00	28.00	
Mean	321.70	159.35	13.52	16.87	69.17	
95 Percentile	578.20	282.70	17.90	21.00	122.70	
98 Percentile	586.04	291.96	19.12	21.56	125.80	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values in µg/m³

Project: Samleswari OCP
Monitoring Station: Near Re-Joice Club in hilltop colony
Table 18

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	320	138	18	21	57	West to east hot & sunny
08-May-15	351	113	17	20	65	East to west hot & sunny
22-May-15	346	137	16	19	54	East to west hot & sunny
05-Jun-15	290	132	16	20	52	East to west hot & sunny
22-Jun-15	293	128	15	19	44	East to west hot & sunny evening rainfall
08-Jul-15	281	127	14	18	40	East to west sunny
22-Jul-15	223	101	13	17	40	East to west hot & sunny heavy rainfall
07-Aug-15	275	123	14	17	53	East to west hot & sunny evening rainfall
21-Aug-15	257	118	13	16	56	East to west hot & sunny evening rainfall
09-Sep-15	263	124	15	19	48	East to west hot & sunny evening rainfall
23-Sep-15	270	129	15	20	43	East to west hot & sunny evening rainfall
09-Oct-15	364	217	14	17	143	East to west hot & sunny
26-Oct-15	347	241	16	20	76	East to west hot & sunny
06-Nov-15	420	248	12	16	120	East to west hot & sunny
23-Nov-15	436	201	15	19	84	East to west hot & sunny
07-Dec-15	286	180	10	15	126	East to west hot & sunny
22-Dec-15	227	179	13	17	111	East to west hot & sunny Evening Rainfall
08-Jan-16	539	227	14	18	84	East to west cloudy
22-Jan-16	572	241	15	20	50	East to west sunny
05-Feb-16	531	292	14	17	88	East to west sunny
22-Feb-16	437	263	15	17	52	East to west sunny
08-Mar-16	325	205	11	15	131	East to west sunny
22-Mar-16	521	247	15	17	66	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	572.00	292.00	18.00	21.00	143.00	
Minimum	223.00	101.00	10.00	15.00	40.00	
Mean	355.39	178.74	14.35	18.00	73.17	
95 Percentile	538.20	261.50	16.90	20.00	130.50	
98 Percentile	557.48	279.24	17.56	20.56	137.72	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Samleswari OCP
Monitoring Station: Roof of new project office

Table 19

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	285	129	15	19	45	East to west hot & sunny
08-May-15	324	120	15	20	49	East to west hot & sunny
22-May-15	293	118	16	20	53	East to west hot & sunny
05-Jun-15	209	91	13	16	33	East to west hot & sunny
22-Jun-15	222	103	14	17	22	East to west hot & sunny evening rainfall
08-Jul-15	240	108	13	16	32	East to west sunny
22-Jul-15	190	82	12	15	28	East to west hot & sunny heavy rainfall
07-Aug-15	295	113	15	18	56	East to west hot & sunny evening rainfall
21-Aug-15	233	101	14	17	39	East to west hot & sunny evening rainfall
09-Sep-15	253	124	16	19	41	East to west hot & sunny evening rainfall
23-Sep-15	264	120	17	20	45	East to west hot & sunny evening rainfall
09-Oct-15	386	279	15	20	168	East to west hot & sunny
26-Oct-15	240	162	12	16	63	East to west hot & sunny
06-Nov-15	430	185	13	16	95	East to west hot & sunny
23-Nov-15	501	220	15	20	80	East to west hot & sunny
07-Dec-15	365	210	13	16	148	East to west hot & sunny
22-Dec-15	304	231	15	19	43	East to west hot & sunny Evening Rainfall
08-Jan-16	521	220	15	20	78	East to west cloudy
22-Jan-16	590	260	14	18	74	East to west sunny
05-Feb-16	593	270	18	21	107	East to west sunny
22-Feb-16	599	270	18	20	69	East to west sunny
08-Mar-16	447	221	11	14	130	East to west sunny
22-Mar-16	550	236	13	16	111	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	599.00	279.00	18.00	21.00	168.00	
Minimum	190.00	82.00	11.00	14.00	22.00	
Mean	362.35	172.74	14.43	17.96	69.96	
95 Percentile	592.70	270.00	17.90	20.00	146.20	
98 Percentile	596.36	275.04	18.00	20.56	159.20	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

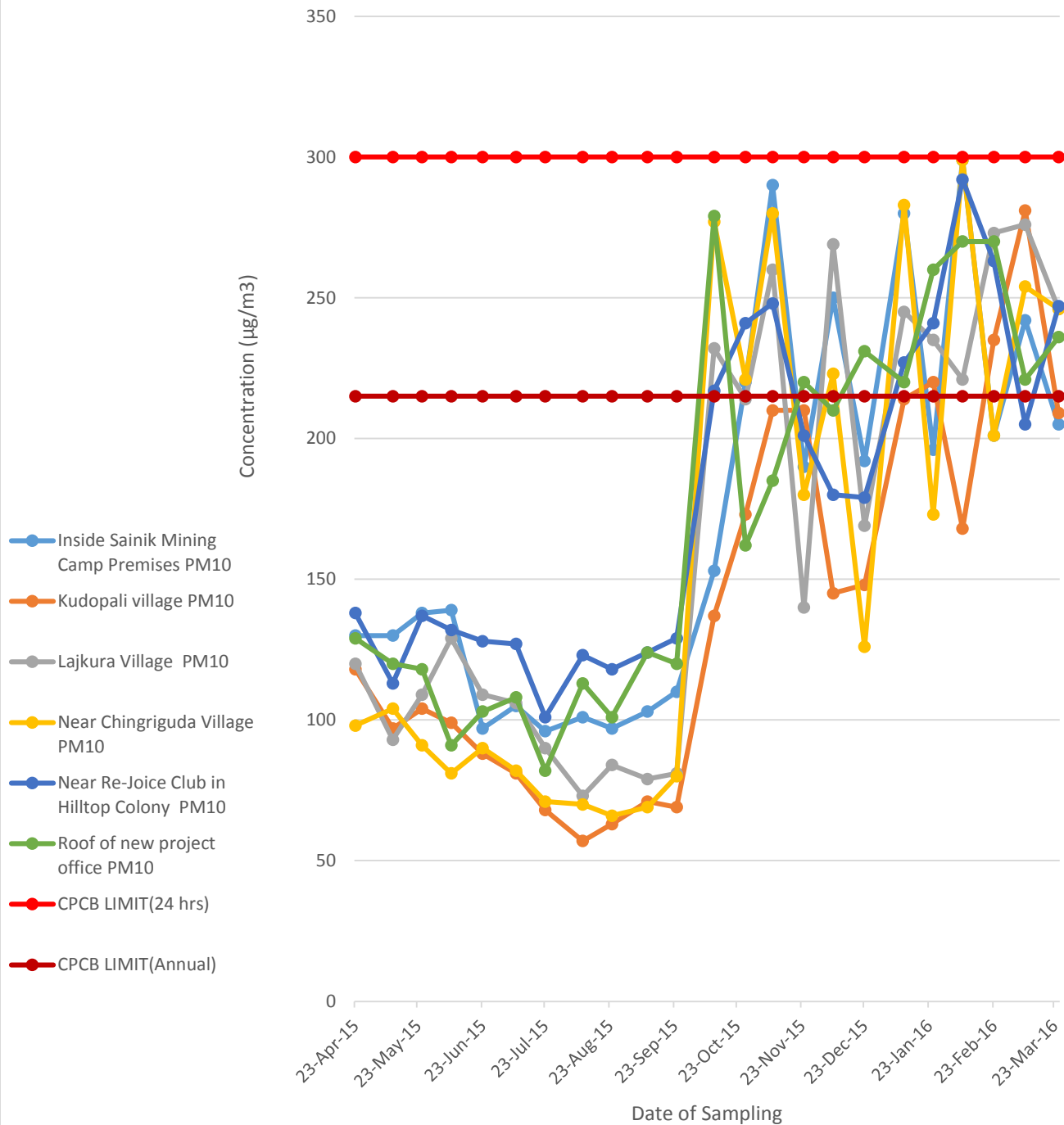
Table 20: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Chingriguda Village	08-12-15	40.7	7.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.668	<1.0	<1.0	<0.5
Chingriguda Village	23-12-15	45.3	7	<0.07	<1.0	<1.0	<1.0	<0.02	0.654	<1.0	<1.0	<0.5
Chingriguda Village	11-01-16	45	6.9	<0.07	<1.0	<1.0	<1.0	<0.02	0.598	<1.0	<1.0	<0.5
Chingriguda Village	25-01-16	43	7.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.637	<1.0	<1.0	<0.5
Chingriguda Village	08-02-16	43.6	6.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.912	<1.0	<1.0	<0.5
Chingriguda Village	23-02-16	42.2	7.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.873	<1.0	<1.0	<0.5
Chingriguda Village	09-03-16	17.4	9.06	<0.07	<1.0	<1.0	<1.0	<0.02	0.854	<1.0	<1.0	<0.5
Chingriguda Village	25-03-16	21	10.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.92	<1.0	<1.0	<0.5
Roof new project office	22-03-16	21.5	8.99	<0.07	<1.0	<1.0	<1.0	<0.02	0.785	<1.0	<1.0	<0.5
Kudopali village	25-03-16	20.3	8.45	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Lajkura village	22-03-16	19.8	9.61	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Inside sainik mining camp premises	25-03-16	20.6	9.91	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Near re-joice club in hilltop colony	22-03-16	19.5	9.74	<0.07	<1.0	<1.0	<1.0	<0.02	0.826	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

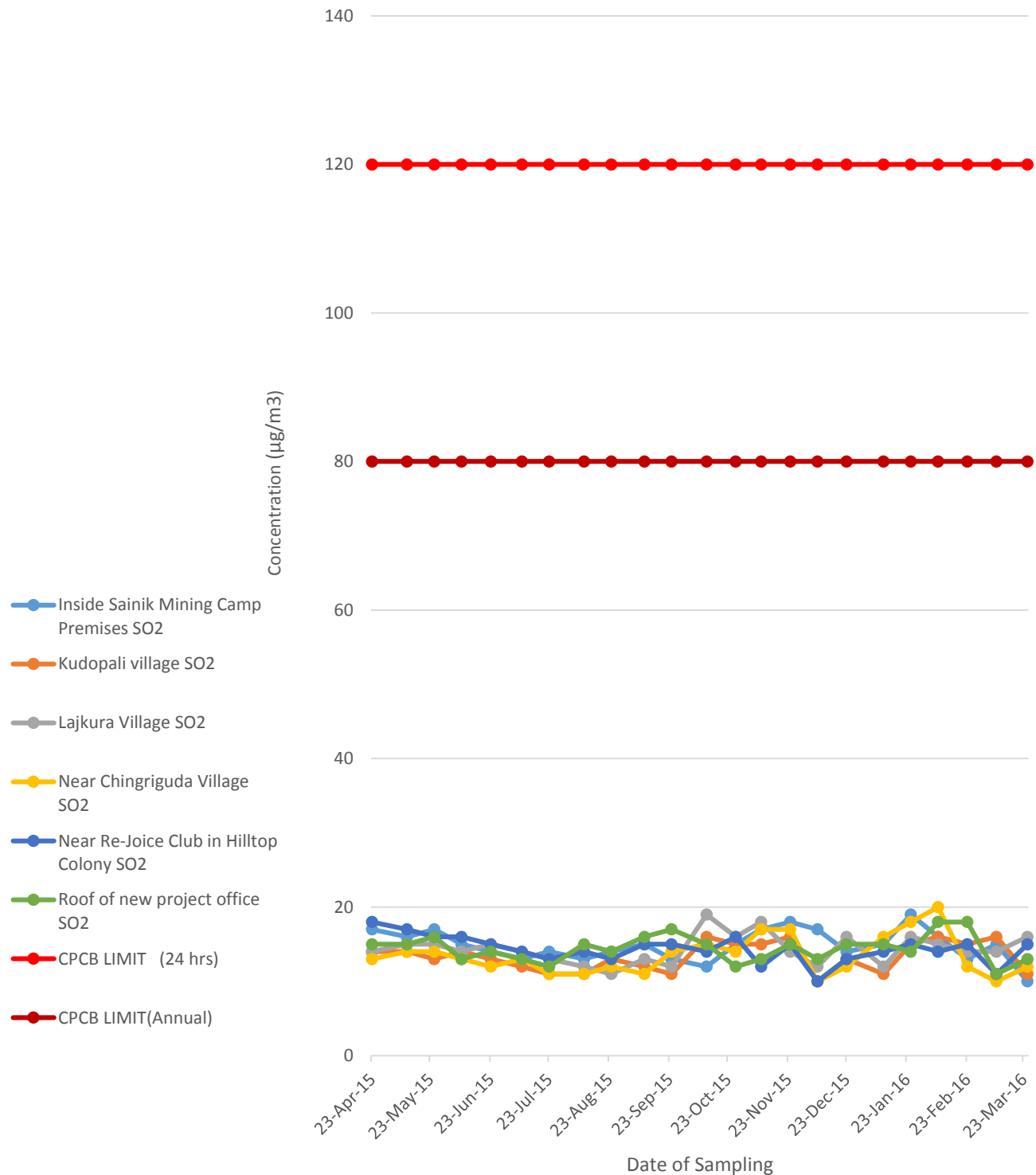
Graph Showing SPM of Samleswari OCP



Graph Showing PM₁₀ of Samleswari OCP



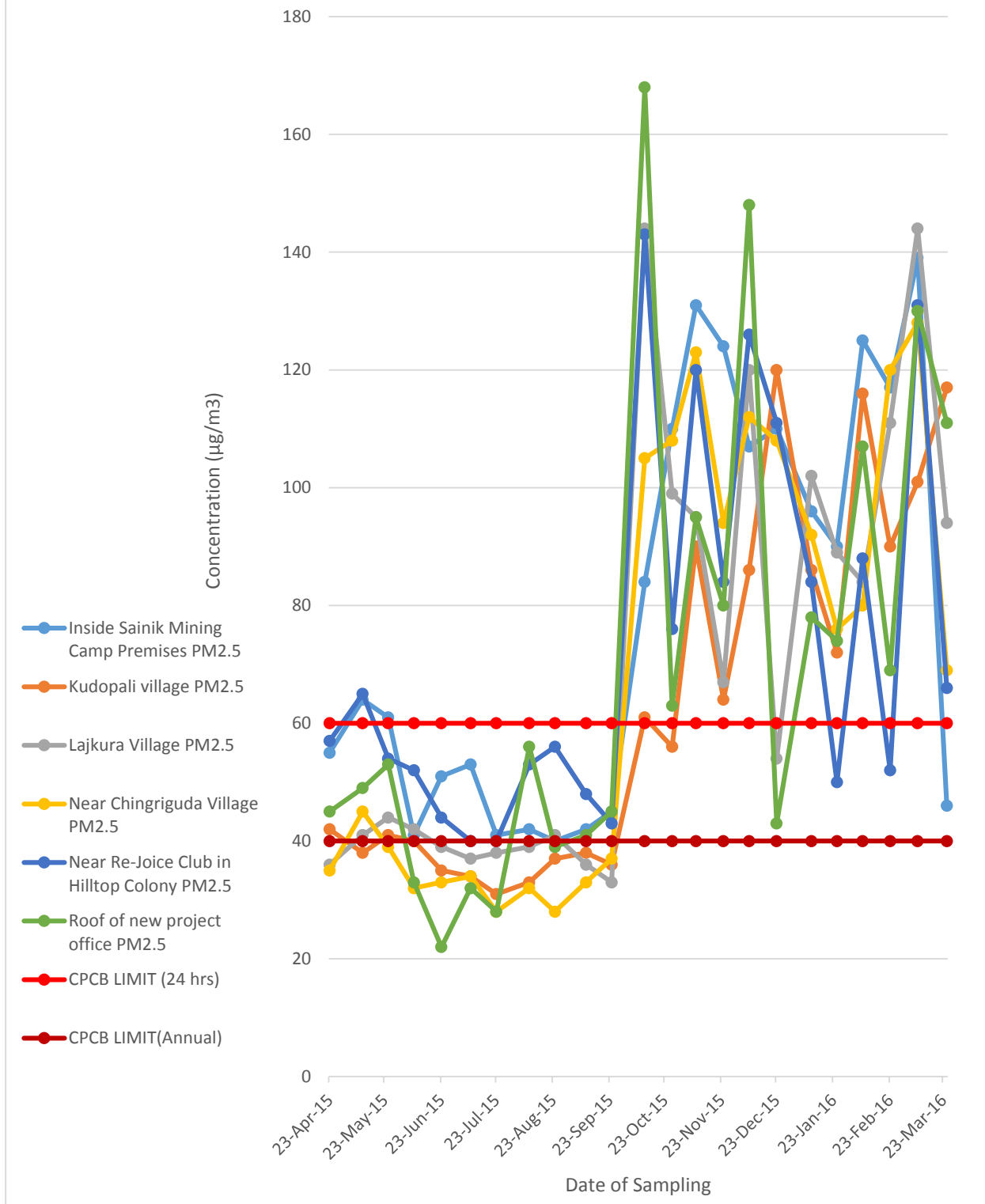
Graph Showing SO₂ of Samleswari OCP



Graph Showing NO_x of Samleswari OCP



Graph Showing PM_{2.5} of Samleswari OCP



Project: Lajkura OCP
Monitoring Station: Mine station no.1 (N-W side)

Table 21

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	346	138	17	20	59	East to west hot & sunny
07-May-15	351	138	16	20	56	East to west hot & sunny
21-May-15	358	144	18	21	59	East to west hot & sunny
04-Jun-15	267	137	15	18	51	East to west hot & sunny
19-Jun-15	254	130	15	18	32	East to west hot & sunny
07-Jul-15	241	119	14	17	35	west to east hot & sunny evening rainfall
21-Jul-15	236	111	13	16	39	west to east hot & sunny heavy rainfall
06-Aug-15	214	93	12	15	25	West to east hot & sunny evening rainfall
20-Aug-15	274	130	15	18	45	West to east hot & sunny evening rainfall
08-Sep-15	288	126	17	20	47	West to east hot & sunny evening rainfall
22-Sep-15	210	101	13	17	38	West to east hot & sunny evening rainfall
08-Oct-15	515	273	16	20	152	West to east hot & sunny
21-Oct-15	499	221	18	22	111	West to east hot & sunny
05-Nov-15	480	210	13	15	85	West to east hot & sunny
20-Nov-15	441	201	15	18	82	West to east hot & sunny
04-Dec-15	153	97	12	16	70	West to east hot & sunny
21-Dec-15	254	206	12	17	63	West to east hot & sunny Evening Rainfall
07-Jan-16	578	277	15	20	72	West to east sunny
21-Jan-16	212	128	14	17	80	West to east sunny
04-Feb-16	587	256	17	20	99	West to east sunny
19-Feb-16	592	260	17	20	105	East to west sunny
07-Mar-16	430	120	12	15	38	West to east sunny
21-Mar-16	565	263	13	16	73	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	592.00	277.00	18.00	22.00	152.00	
Minimum	153.00	93.00	12.00	15.00	25.00	
Mean	362.83	168.65	14.74	18.09	65.91	
95 Percentile	586.10	272.00	17.90	20.90	110.40	
98 Percentile	589.80	275.24	18.00	21.56	133.96	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lajkura OCP
Monitoring Station: Mine station no.2 (S-W side)

Table 22

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	325	137	18	21	61	East to west hot & sunny
07-May-15	345	129	16	19	53	East to west hot & sunny
21-May-15	337	134	15	19	50	East to west hot & sunny
04-Jun-15	320	130	14	19	48	East to west hot & sunny
19-Jun-15	301	124	15	19	52	East to west hot & sunny
07-Jul-15	292	120	14	18	45	west to east hot & sunny evening rainfall
21-Jul-15	241	98	14	18	42	west to east hot & sunny heavy rainfall
06-Aug-15	210	97	13	16	30	West to east hot & sunny evening rainfall
20-Aug-15	230	110	12	15	35`	West to east hot & sunny evening rainfall
08-Sep-15	254	126	16	20	37	West to east hot & sunny evening rainfall
22-Sep-15	280	133	15	19	42	West to east hot & sunny evening rainfall
08-Oct-15	465	155	18	22	110	West to east hot & sunny
21-Oct-15	444	160	17	22	99	West to east hot & sunny
05-Nov-15	494	245	16	19	64	West to east hot & sunny
20-Nov-15	387	187	14	20	142	West to east hot & sunny
04-Dec-15	530	280	19	22	140	West to east hot & sunny
21-Dec-15	419	210	17	21	55	West to east hot & sunny Evening Rainfall
07-Jan-16	343	291	19	22	56	West to east sunny
21-Jan-16	329	202	16	20	53	West to east sunny
04-Feb-16	497	287	13	16	120	West to east sunny
19-Feb-16	384	136	14	18	76	East to west sunny
07-Mar-16	540	220	15	18	88	West to east sunny
21-Mar-16	542	294	15	18	75	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	542.00	294.00	19.00	22.00	142.00	
Minimum	210.00	97.00	12.00	15.00	30.00	
Mean	369.96	174.13	15.43	19.17	68.39	
95 Percentile	539.00	290.60	18.90	22.00	138.00	
98 Percentile	541.12	292.68	19.00	22.00	141.12	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lajkura OCP
Monitoring Station: Adarsh Nagar Colony

Table 23

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	230	109	16	19	48	East to west hot & sunny
07-May-15	198	97	14	18	43	East to west hot & sunny
21-May-15	208	99	15	18	46	East to west hot & sunny
03-Jun-15	148	81	12	15	30	East to west hot & sunny
18-Jun-15	148	71	12	16	29	East to west hot & sunny
06-Jul-15	163	78	12	15	32	East to west hot & sunny evening rainfall
20-Jul-15	160	73	11	14	35	East to west hot & sunny heavy rainfall
05-Aug-15	140	58	11	14	24	East to west hot & sunny evening rainfall
19-Aug-15	160	75	12	16	31	East to west hot & sunny evening rainfall
07-Sep-15	143	83	11	14	29	East to west hot & sunny evening rainfall
19-Sep-15	147	77	10	13	27	East to west hot & sunny evening rainfall
07-Oct-15	163	92	11	14	68	East to west hot & sunny
20-Oct-15	120	93	10	13	68	East to west hot & sunny
04-Nov-15	530	267	15	20	123	East to west hot & sunny
19-Nov-15	464	214	17	22	115	East to west hot & sunny
03-Dec-15	165	80	11	14	51	East to west hot & sunny
18-Dec-15	169	100	11	14	77	East to west hot & sunny
06-Jan-16	437	276	16	21	94	East to west cloudy & sunny
20-Jan-16	418	245	11	15	63	East to west sunny
03-Feb-16	311	147	12	15	79	East to west sunny
18-Feb-16	432	232	13	15	117	East to west sunny
04-Mar-16	270	101	13	15	83	East to west sunny
18-Mar-16	204	136	10	13	69	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	530.00	276.00	17.00	22.00	123.00	
Minimum	120.00	58.00	10.00	13.00	24.00	
Mean	240.35	125.39	12.43	15.78	60.04	
95 Percentile	461.30	264.80	16.00	20.90	116.80	
98 Percentile	500.96	272.04	16.56	21.56	120.36	
Standard (24 Hrs)	600	300	120	120	60	Standard (24 Hrs)
Standard (Annual)	430	215	80	80	40	Standard (Annual)

All values are in µg/m³

Project: Lajkura OCP
Monitoring Station: Near Chingriguda Village

Table 24

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
23-Apr-15	192	98	13	17	35	East to west hot & sunny
12-May-15	236	104	14	18	45	East to west hot & sunny
26-May-15	197	91	14	17	39	West to east hot & sunny
08-Jun-15	180	81	13	17	32	East to west hot & sunny
23-Jun-15	187	90	12	15	33	East to west hot & sunny evening rainfall
09-Jul-15	183	82	13	16	34	west to east sunny
23-Jul-15	176	71	11	15	28	west to east hot & sunny heavy rainfall
10-Aug-15	168	70	11	14	32	West to east hot & sunny evening rainfall
24-Aug-15	144	66	12	15	28	West to east hot & sunny evening rainfall
10-Sep-15	168	69	11	14	33	West to east hot & sunny evening rainfall
24-Sep-15	172	80	14	17	37	West to east hot & sunny evening rainfall
12-Oct-15	403	277	15	20	105	West to east hot & sunny
27-Oct-15	292	221	14	18	108	West to east hot & sunny
09-Nov-15	590	280	17	21	123	West to east hot & sunny
24-Nov-15	370	180	17	20	94	West to east hot & sunny
08-Dec-15	473	223	10	14	112	West to east hot & sunny
23-Dec-15	307	126	12	16	108	West to east hot & sunny Evening Rainfall
11-Jan-16	553	283	16	19	92	West to east sunny
25-Jan-16	495	173	18	21	76	West to east sunny
08-Feb-16	581	299	20	22	80	West to east sunny
23-Feb-16	354	201	12	15	120	West to east sunny
09-Mar-16	436	254	10	12	128	West to east sunny
25-Mar-16	542	256	12	15	69	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	590.00	299.00	20.00	22.00	128.00	
Minimum	144.00	66.00	10.00	12.00	28.00	
Mean	321.70	159.78	13.52	16.87	69.17	
95 Percentile	578.20	282.70	17.90	21.00	122.70	
98 Percentile	586.04	291.96	19.12	21.56	125.80	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lajkura OCP
Monitoring Station: Near Project office

Table 25

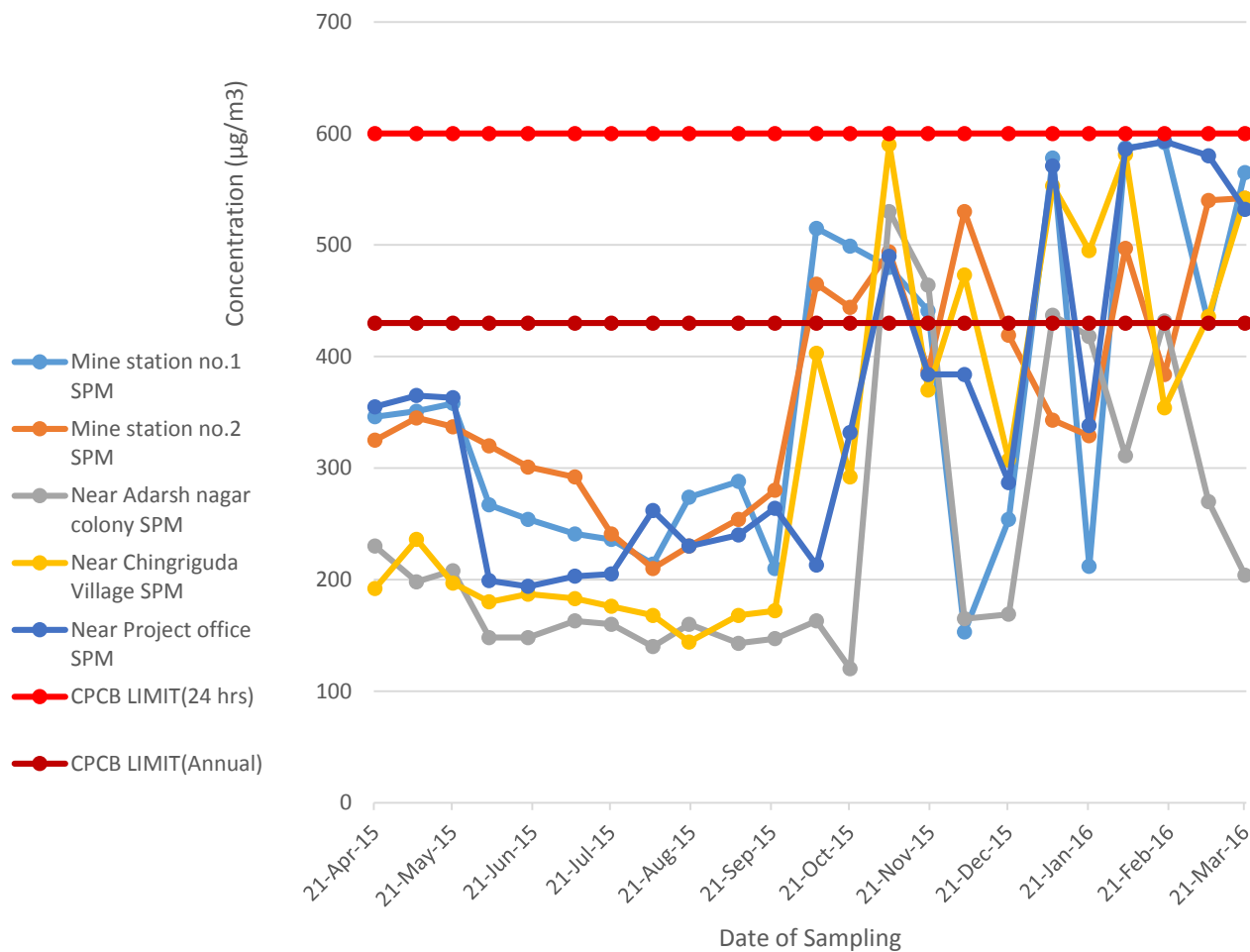
Date of Sampling	SPM	PM ₁₀	SO ₂	NOx	PM _{2.5}	Remarks
21-Apr-15	355	140	18	22	66	East to west hot & sunny
07-May-15	365	133	17	21	63	East to west hot & sunny
21-May-15	363	141	17	20	57	East to west hot & sunny
04-Jun-15	199	91	13	17	47	East to west hot & sunny
19-Jun-15	194	93	13	16	42	East to west hot & sunny
07-Jul-15	203	98	13	16	43	west to east hot & sunny evening rainfall
21-Jul-15	205	93	12	16	44	west to east hot & sunny heavy rainfall
06-Aug-15	262	108	15	18	46	West to east hot & sunny evening rainfall
20-Aug-15	230	102	11	15	38	West to east hot & sunny evening rainfall
08-Sep-15	240	108	14	19	41	West to east hot & sunny evening rainfall
22-Sep-15	264	126	16	19	41	West to east hot & sunny evening rainfall
08-Oct-15	213	155	12	15	86	West to east hot & sunny
21-Oct-15	332	161	17	20	91	West to east hot & sunny
05-Nov-15	490	235	14	18	89	West to east hot & sunny
20-Nov-15	384	146	13	19	79	West to east hot & sunny
04-Dec-15	384	209	10	13	113	West to east hot & sunny
21-Dec-15	287	208	14	17	124	West to east hot & sunny Evening Rainfall
07-Jan-16	571	270	16	19	82	West to east sunny
21-Jan-16	338	148	14	16	73	West to east sunny
04-Feb-16	586	280	18	20	102	West to east sunny
19-Feb-16	593	251	19	21	128	East to west sunny
07-Mar-16	580	260	17	20	80	West to east sunny
21-Mar-16	532	265	14	17	68	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NOx	PM_{2.5}	
Maximum	593.00	280.00	19.00	22.00	128.00	
Minimum	194.00	91.00	10.00	13.00	38.00	
Mean	355.22	166.13	14.65	18.00	71.43	
95 Percentile	585.40	269.50	18.00	21.00	122.90	
98 Percentile	589.92	275.60	18.56	21.56	126.24	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

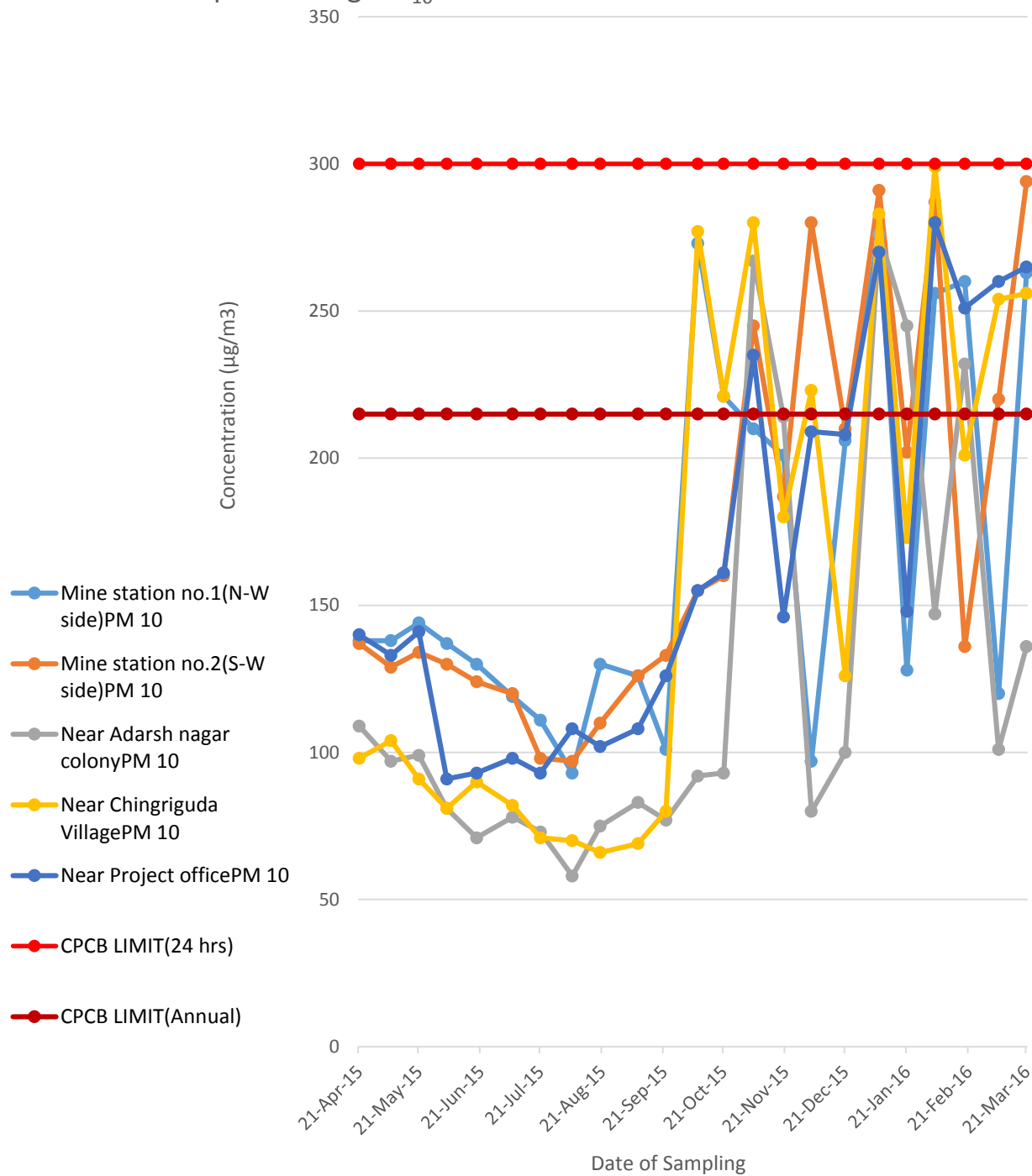
Table 26: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)*	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Near Project office	21-03-16	20.1	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Mine station No.1(N-W side)	21-03-16	19.5	8.69	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Near Adarsh nagar colony	18-03-16	18.6	10.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.915	<1.0	<1.0	<0.5
Mine station No.2 S-W side)	21-03-16	18.9	9.32	<0.07	<1.0	<1.0	<1.0	<0.02	0.945	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

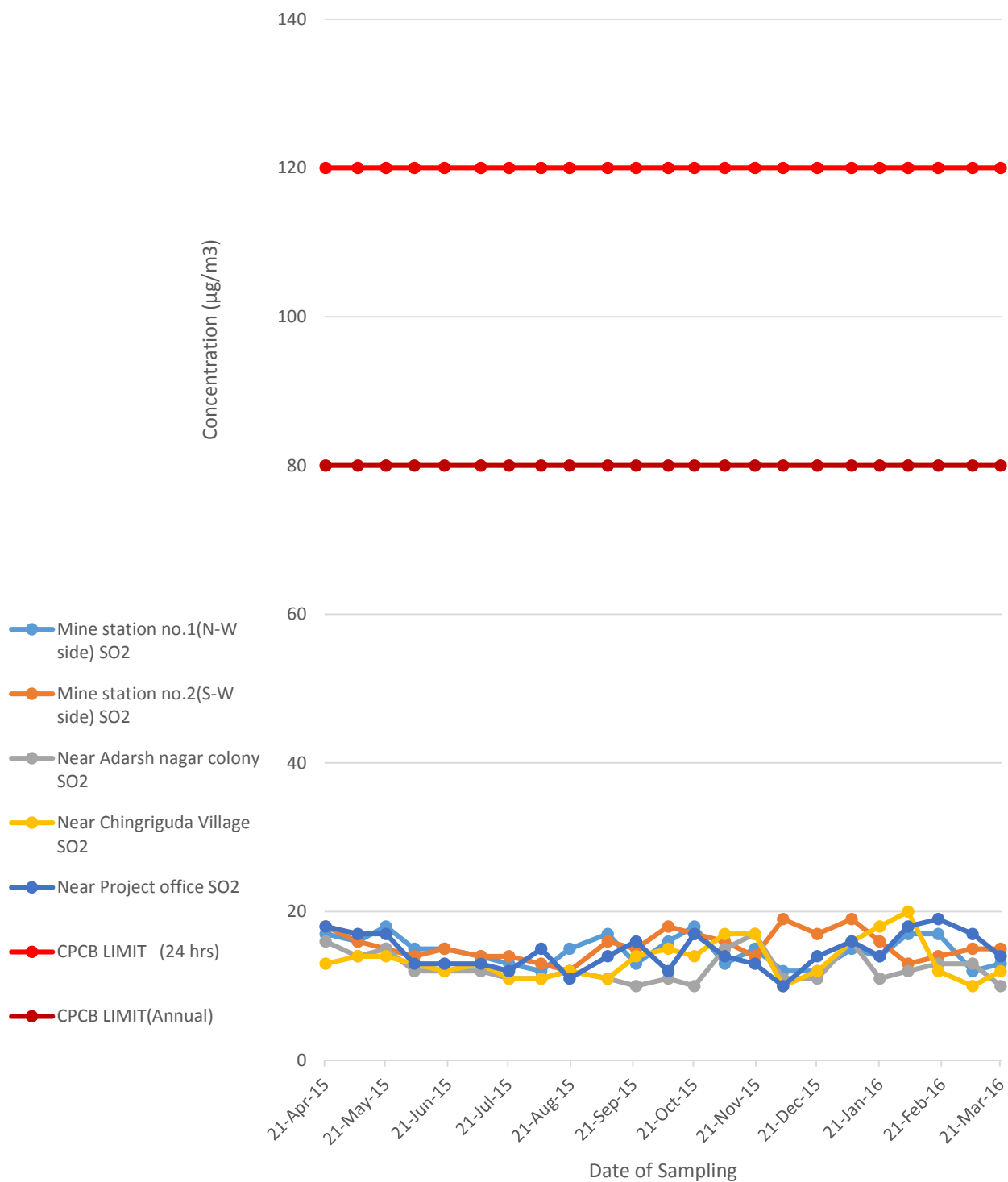
Graph Showing SPM of Lajkura OCP



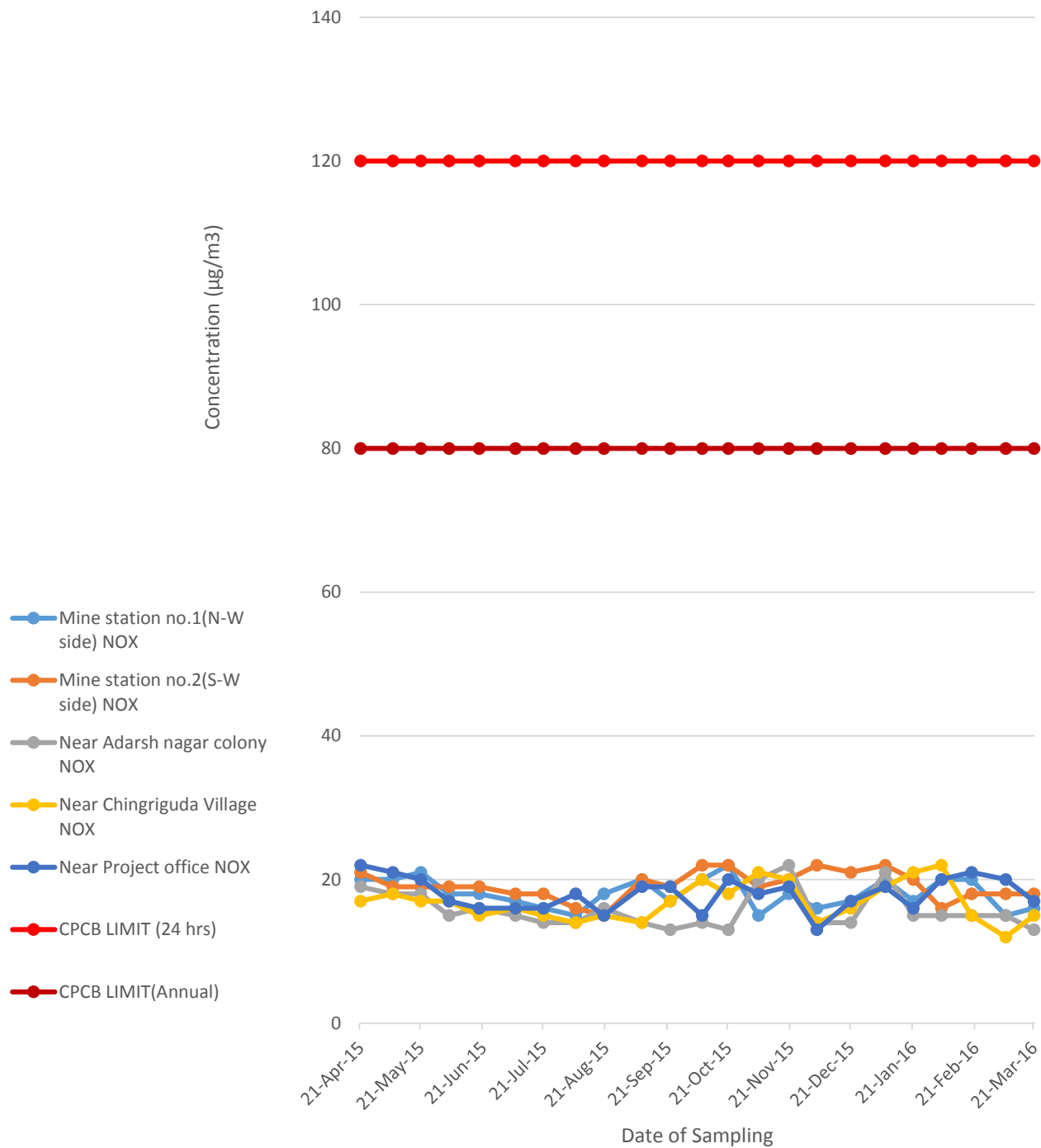
Graph Showing PM₁₀ of LAJKURA OCP



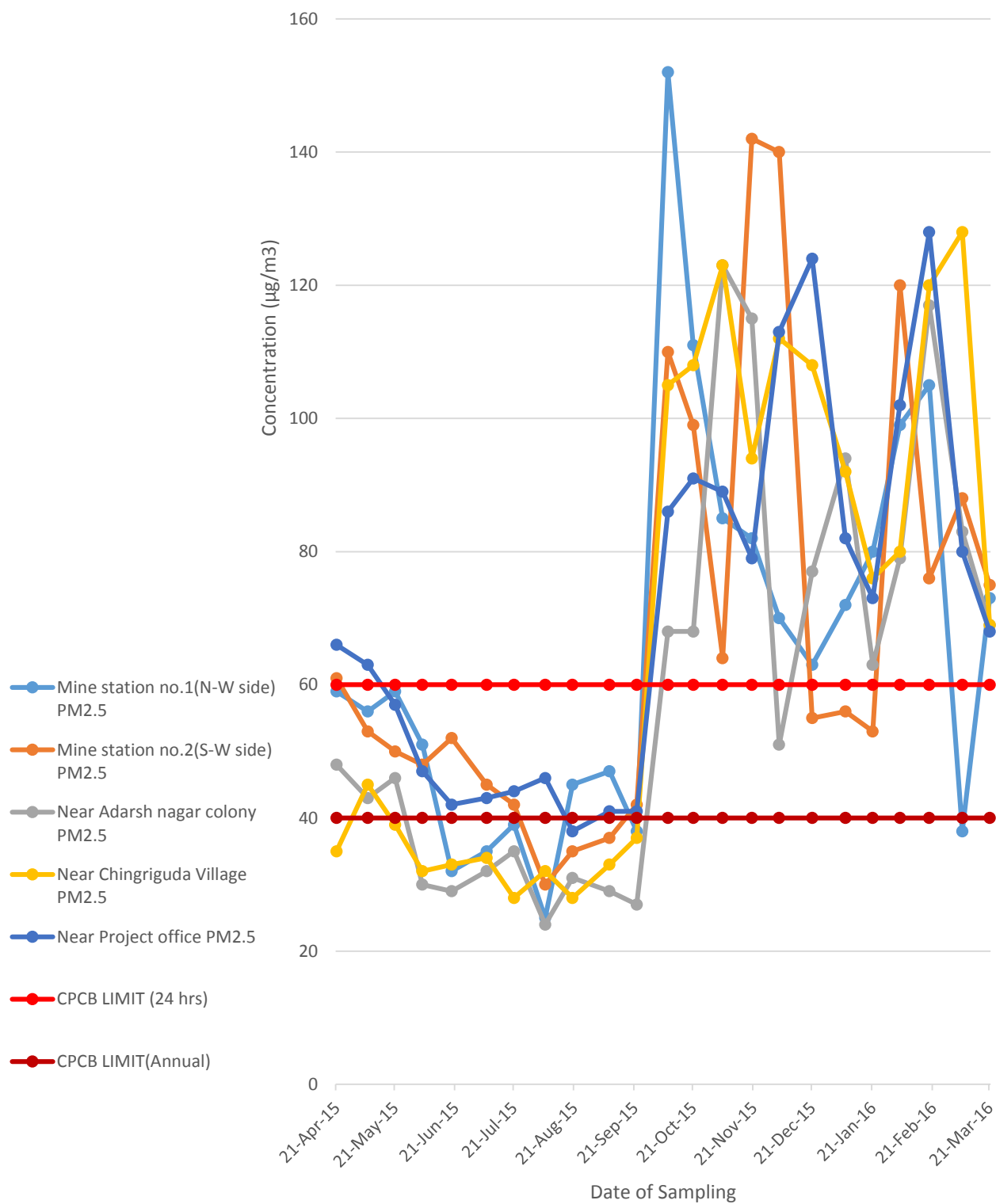
Graph Showing SO₂ of LAJKURA OCP



Graph Showing NO_x of LAJKURA OCP



Graph Showing PM_{2.5} of LAJKURA OCP



Project: Lakhanpur OCP
Monitoring Station: Near MGR railway sidig office
Table 27

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	344	129	17	22	61	East to west hot & sunny
13-May-15	356	142	17	22	68	West to east hot & sunny
27-May-15	345	140	16	20	61	West to east hot & sunny
10-Jun-15	312	131	15	19	52	East to west hot & sunny
25-Jun-15	223	138	17	20	53	East to west hot & sunny
13-Jul-15	271	124	15	18	51	west to east sunny & cloudy rainfall
27-Jul-15	252	114	13	18	43	west to east hot & sunny heavy rainfall
12-Aug-15	224	116	13	16	30	west to east hot & sunny evening rainfall
28-Aug-15	230	113	11	15	37	East to west hot & sunny evening rainfall
14-Sep-15	242	88	11	16	40	West to east hot & sunny evening rainfall
28-Sep-15	283	132	17	20	49	West to east hot & sunny evening rainfall
14-Oct-15	542	219	17	20	84	West to east hot & sunny
29-Oct-15	586	232	18	22	99	West to east hot & sunny
12-Nov-15	597	245	15	20	103	West to east hot & sunny
26-Nov-15	487	240	17	22	72	West to east hot & sunny
10-Dec-15	232	112	14	19	90	West to east sunny
25-Dec-15	431	241	16	20	44	East to west hot & sunny Evening Rainfall
13-Jan-16	545	284	19	22	95	West to east sunny & cloudy
28-Jan-16	413	195	16	20	80	West to east sunny
10-Feb-16	532	260	16	20	69	West to east sunny
25-Feb-16	583	237	18	20	101	West to east sunny Evening Rainfall
11-Mar-16	529	260	16	19	93	West to east sunny
29-Mar-16	365	98	16	19	71	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	597.00	284.00	19.00	22.00	103.00	
Minimum	223.00	88.00	11.00	15.00	30.00	
Mean	388.00	173.48	15.65	19.52	67.22	
95 Percentile	585.70	260.00	18.00	22.00	100.80	
98 Percentile	592.16	273.44	18.56	22.00	102.12	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lakhanpur OCP
Monitoring Station: Near OB dump no – 1

Table 28

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	363	145	17	21	51	East to west hot & sunny
13-May-15	341	136	18	21	46	West to east hot & sunny
27-May-15	307	124	15	18	34	West to east hot & sunny
09-Jun-15	284	120	13	17	41	West to east hot & sunny
24-Jun-15	295	132	15	19	46	East to west hot & sunny
10-Jul-15	242	121	13	17	43	East to west sunny & cloudy rainfall
24-Jul-15	244	117	12	16	40	East to west hot & sunny heavy rainfall
11-Aug-15	210	103	11	14	28	East to west hot & sunny evening rainfall
25-Aug-15	164	61	10	13	32	East to west hot & sunny evening rainfall
11-Sep-15	193	60	12	15	30	East to west hot & sunny evening rainfall
25-Sep-15	288	124	17	21	46	East to west hot & sunny evening rainfall
13-Oct-15	265	173	15	20	123	East to west hot & sunny
28-Oct-15	156	89	11	14	55	East to west hot & sunny
10-Nov-15	540	222	15	20	86	East to west hot & sunny
25-Nov-15	280	130	13	17	103	East to west hot & sunny
09-Dec-15	290	170	14	18	64	East to west hot & sunny
24-Dec-15	188	104	10	16	84	West to east hot & sunny Evening Rainfall
12-Jan-16	331	174	16	19	96	East to west sunny
27-Jan-16	555	250	15	20	92	East to west sunny
09-Feb-16	479	185	15	18	78	East to west sunny
24-Feb-16	445	202	16	19	65	East to west sunny
10-Mar-16	520	215	11	16	106	East to west sunny
28-Mar-16	458	213	14	18	88	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	555.00	250.00	18.00	21.00	123.00	
Minimum	156.00	60.00	10.00	13.00	28.00	
Mean	323.39	146.52	13.83	17.70	64.22	
95 Percentile	538.00	221.30	17.00	21.00	105.70	
98 Percentile	548.40	237.68	17.56	21.00	115.52	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lakhanpur OCP
Monitoring Station: Near Sadhbav Camp

Table 29

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	343	138	15	20	53	East to west hot & sunny
13-May-15	340	139	16	20	63	West to east hot & sunny
27-May-15	364	137	17	22	69	West to east hot & sunny
09-Jun-15	223	129	14	17	48	West to east hot & sunny
24-Jun-15	274	130	14	18	54	East to west hot & sunny
10-Jul-15	230	116	12	15	47	East to west sunny & cloudy rainfall
24-Jul-15	218	104	14	17	36	East to west hot & sunny heavy rainfall
11-Aug-15	223	114	12	16	28	East to west hot & sunny evening rainfall
25-Aug-15	210	103	11	14	35	East to west hot & sunny evening rainfall
11-Sep-15	238	107	13	16	39	East to west hot & sunny evening rainfall
25-Sep-15	243	115	14	18	41	East to west hot & sunny evening rainfall
13-Oct-15	372	257	17	22	162	East to west hot & sunny
28-Oct-15	432	120	16	20	72	East to west hot & sunny
10-Nov-15	580	232	16	21	96	East to west hot & sunny
25-Nov-15	300	140	12	17	81	East to west hot & sunny
09-Dec-15	369	265	11	16	102	East to west hot & sunny
24-Dec-15	217	163	13	18	55	West to east hot & sunny Evening Rainfall
12-Jan-16	383	244	15	18	69	East to west sunny
27-Jan-16	505	232	12	16	78	East to west sunny
09-Feb-16	482	250	17	19	140	East to west sunny
24-Feb-16	517	267	14	18	83	East to west sunny
10-Mar-16	340	215	11	15	110	East to west sunny
28-Mar-16	489	245	13	16	102	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	580.00	267.00	17.00	22.00	162.00	
Minimum	210.00	103.00	11.00	14.00	28.00	
Mean	343.13	172.26	13.87	17.78	72.30	
95 Percentile	515.80	264.20	17.00	21.90	137.00	
98 Percentile	552.28	266.12	17.00	22.00	152.32	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lakhanpur OCP
Monitoring Station: Tingismal village

Table 30

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	243	107	16	19	44	East to west hot & sunny
12-May-15	209	96	14	17	38	East to west hot & sunny
26-May-15	214	103	13	16	44	West to east hot & sunny
10-Jun-15	190	87	12	16	37	East to west hot & sunny
25-Jun-15	193	91	15	18	35	East to west hot & sunny
13-Jul-15	196	89	13	17	37	west to east sunny & cloudy rainfall
27-Jul-15	188	73	12	15	36	west to east hot & sunny heavy rainfall
12-Aug-15	180	74	11	15	32	west to east hot & sunny evening rainfall
28-Aug-15	173	72	12	15	34	East to west hot & sunny evening rainfall
14-Sep-15	184	68	11	16	43	West to east hot & sunny evening rainfall
28-Sep-15	210	79	12	15	34	West to east hot & sunny evening rainfall
14-Oct-15	580	285	18	21	131	West to east hot & sunny
29-Oct-15	543	200	18	21	111	West to east hot & sunny
12-Nov-15	441	207	12	16	114	West to east hot & sunny
26-Nov-15	543	213	18	22	112	West to east hot & sunny
10-Dec-15	404	159	17	20	81	West to east sunny
25-Dec-15	219	188	14	19	64	East to west hot & sunny Evening Rainfall
13-Jan-16	589	265	15	20	76	West to east sunny & cloudy
28-Jan-16	483	280	15	20	74	West to east sunny
10-Feb-16	328	137	16	19	89	West to east sunny
25-Feb-16	178	103	12	15	52	West to east sunny Evening Rainfall
11-Mar-16	386	284	12	15	92	West to east sunny
29-Mar-16	363	286	13	16	110	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	589.00	286.00	18.00	22.00	131.00	
Minimum	173.00	68.00	11.00	15.00	32.00	
Mean	314.65	154.17	13.96	17.52	66.09	
95 Percentile	576.30	284.90	18.00	21.00	113.80	
98 Percentile	585.04	285.56	18.00	21.56	123.52	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lakhanpur OCP
Monitoring Station: Ubuda village

Table 31

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	200	75	14	17	30	East to west hot & sunny
12-May-15	165	85	13	16	40	East to west hot & sunny
26-May-15	189	90	14	17	42	West to east hot & sunny
10-Jun-15	181	82	13	16	35	East to west hot & sunny
25-Jun-15	186	89	14	17	33	East to west hot & sunny
13-Jul-15	190	90	14	18	35	west to east sunny & cloudy rainfall
27-Jul-15	181	68	11	14	33	west to east hot & sunny heavy rainfall
12-Aug-15	173	69	11	14	29	west to east hot & sunny evening rainfall
28-Aug-15	180	68	10	14	31	East to west hot & sunny evening rainfall
14-Sep-15	193	79	12	17	35	West to east hot & sunny evening rainfall
28-Sep-15	197	88	13	16	37	West to east hot & sunny evening rainfall
14-Oct-15	384	289	16	19	128	West to east hot & sunny
29-Oct-15	333	200	15	18	31	West to east hot & sunny
12-Nov-15	572	230	17	20	105	West to east hot & sunny
26-Nov-15	337	140	13	18	114	West to east hot & sunny
10-Dec-15	515	239	19	22	79	West to east sunny
25-Dec-15	286	221	15	20	110	East to west hot & sunny Evening Rainfall
13-Jan-16	562	231	16	21	82	West to east sunny & cloudy
28-Jan-16	591	251	17	22	95	West to east sunny
10-Feb-16	270	201	12	15	105	West to east sunny
25-Feb-16	142	84	11	16	51	West to east sunny Evening Rainfall
11-Mar-16	506	244	17	20	113	West to east sunny
29-Mar-16	502	206	17	19	66	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	591.00	289.00	19.00	22.00	128.00	
Minimum	142.00	68.00	10.00	14.00	29.00	
Mean	305.87	148.65	14.09	17.65	63.43	
95 Percentile	571.00	250.30	17.00	21.90	113.90	
98 Percentile	582.64	272.28	18.12	22.00	121.84	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lakhanpur OCP
Monitoring Station: West side of Quarry 3
Table 32

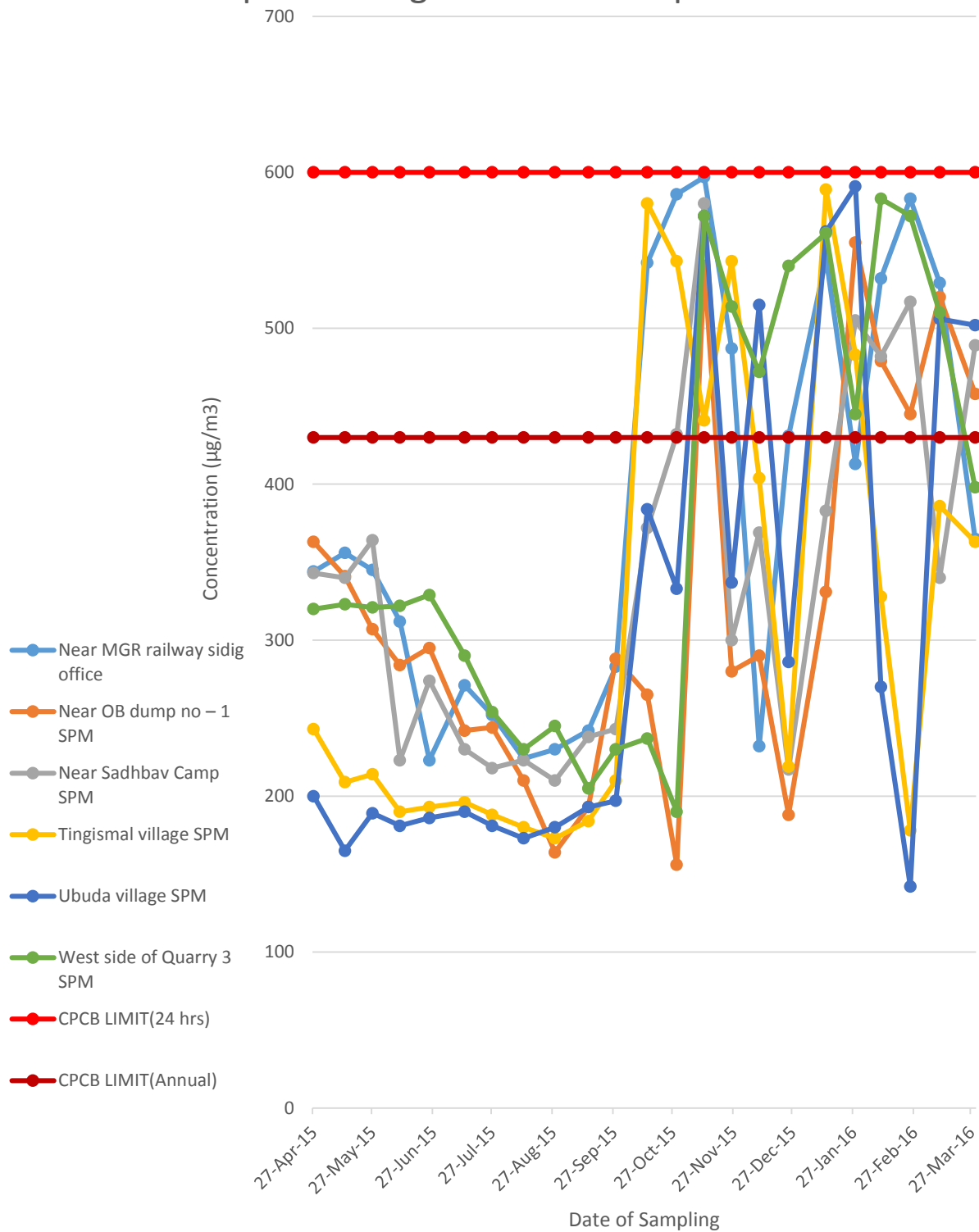
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
27-Apr-15	320	127	18	21	51	East to west hot & sunny
13-May-15	323	118	16	19	53	West to east hot & sunny
27-May-15	321	109	16	19	48	West to east hot & sunny
10-Jun-15	322	135	15	20	54	East to west hot & sunny
25-Jun-15	329	133	17	21	48	East to west hot & sunny
13-Jul-15	290	122	14	19	43	west to east sunny & cloudy rainfall
27-Jul-15	254	121	15	18	41	west to east hot & sunny heavy rainfall
12-Aug-15	230	92	13	17	43	west to east hot & sunny evening rainfall
28-Aug-15	245	94	12	17	41	East to west hot & sunny evening rainfall
14-Sep-15	205	98	12	17	33	West to east hot & sunny evening rainfall
28-Sep-15	230	110	14	17	38	West to east hot & sunny evening rainfall
14-Oct-15	237	137	13	16	49	West to east hot & sunny
29-Oct-15	190	112	11	14	24	West to east hot & sunny
12-Nov-15	572	278	13	18	123	West to east hot & sunny
26-Nov-15	514	230	17	22	120	West to east hot & sunny
10-Dec-15	472	222	16	20	130	West to east sunny
25-Dec-15	540	260	19	22	93	East to west hot & sunny Evening Rainfall
13-Jan-16	561	227	17	22	89	West to east sunny & cloudy
28-Jan-16	445	202	14	19	82	West to east sunny
10-Feb-16	583	281	17	20	101	West to east sunny
25-Feb-16	572	238	18	20	80	West to east sunny Evening Rainfall
11-Mar-16	510	270	13	16	128	West to east sunny
29-Mar-16	398	173	14	17	116	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	583.00	281.00	19.00	22.00	130.00	
Minimum	190.00	92.00	11.00	14.00	24.00	
Mean	376.65	169.09	14.96	18.74	70.78	
95 Percentile	572.00	277.20	18.00	22.00	127.50	
98 Percentile	578.16	279.68	18.56	22.00	129.12	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

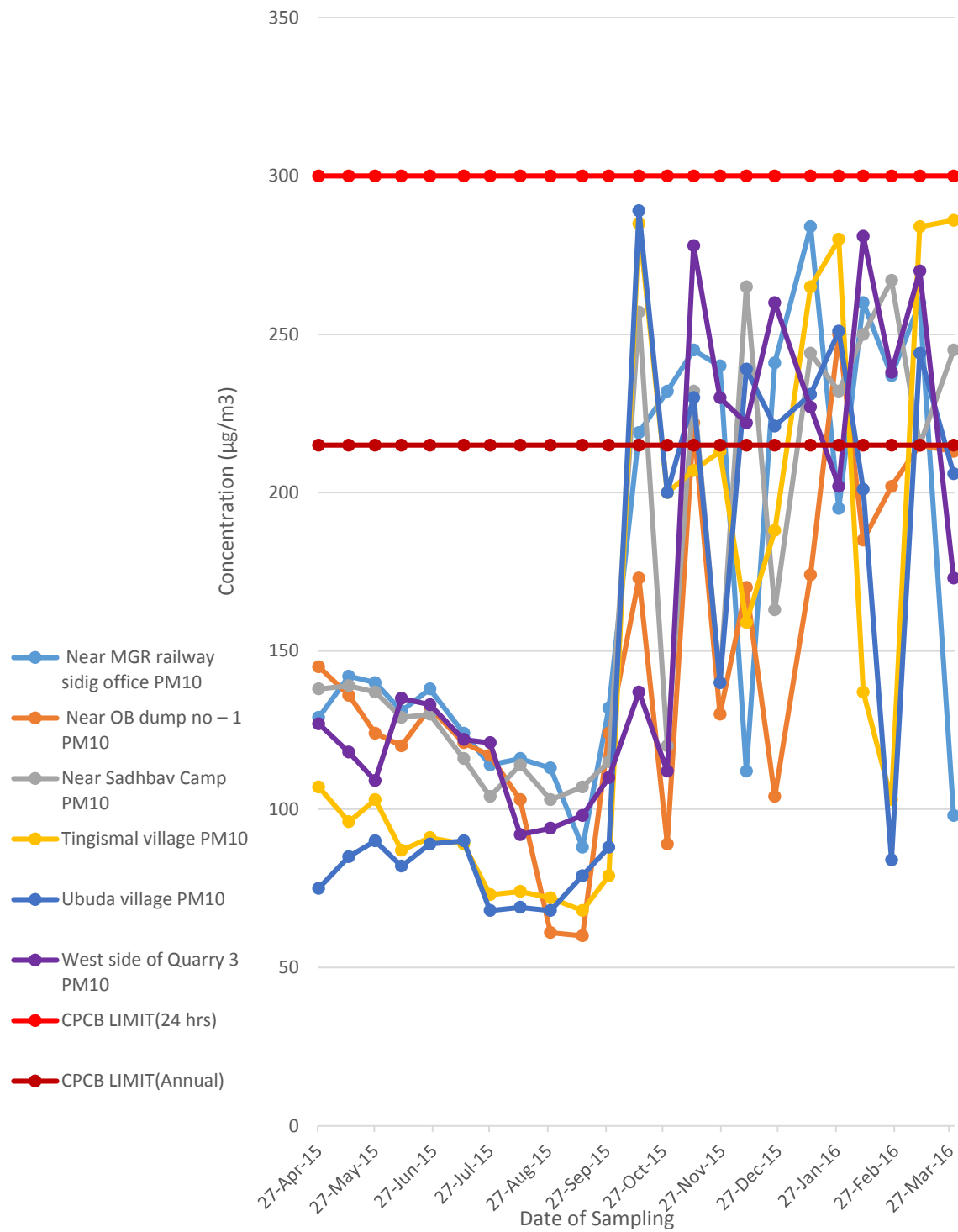
Table 33: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene(C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Ubuda Village	10-12-15	45	8.2	<0.07	<1.0	<0.01	<1.0	<0.02	0.57	<1.0	<1.0	<0.5
Ubuda Village	25-12-15	46.3	9.2	<0.07	<1.0	<0.01	<1.0	<0.02	0.560	<1.0	<1.0	<0.5
Tigismal Village	10-12-15	42.2	7.8	<0.07	<1.0	<0.01	<1.0	<0.02	0.652	<1.0	<1.0	<0.5
Tigismal Village	25-12-15	41.9	8.5	<0.07	<1.0	<0.01	<1.0	<0.02	0.586	<1.0	<1.0	<0.5
Ubuda Village	13-01-16	47.6	7.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.62	<1.0	<1.0	<0.5
Ubuda Village	28-01-16	58.0	9.0	<0.07	<1.0	<1.0	<1.0	<0.02	0.571	<1.0	<1.0	<0.5
Tigismal Village	13-01-16	45.9	8.1	<0.07	<1.0	<1.0	<1.0	<0.02	0.71	<1.0	<1.0	<0.5
Tigismal Village	28-01-16	54.0	8.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.584	<1.0	<1.0	<0.5
Ubuda Village	10-02-16	42.8	7.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.637	<1.0	<1.0	<0.5
Ubuda Village	25-02-16	44.1	6.9	<0.07	<1.0	<1.0	<1.0	<0.02	0.810	<1.0	<1.0	<0.5
Tigismal Village	10-02-16	16.7	9.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.893	<1.0	<1.0	<0.5
Tigismal Village	25-02-16	17.8	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.908	<1.0	<1.0	<0.5
Ubuda Village	11-03-16	19.8	9.51	<0.07	<1.0	<1.0	<1.0	<0.02	0.921	<1.0	<1.0	<0.5
Ubuda Village	29-03-16	19.5	8.15	<0.07	<1.0	<1.0	<1.0	<0.02	0.823	<1.0	<1.0	<0.5
Near MGR Rly Siding office	29-03-16	17.2	8.32	<0.07	<1.0	<1.0	<1.0	<0.02	0.912	<1.0	<1.0	<0.5
Tigismal Village	11-03-16	18.5	10.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.893	<1.0	<1.0	<0.5
Tigismal Village	29-03-16	17.4	9.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.819	<1.0	<1.0	<0.5
West side of Quarry 3	29-03-16	20.5	9.11	<0.07	<1.0	<1.0	<1.0	<0.02	0.932	<1.0	<1.0	<0.5
Near OB Dump no.1	28-03-16	18.7	9.75	<0.07	<1.0	<1.0	<1.0	<0.02	0.756	<1.0	<1.0	<0.5
Near Sadhbav camp	28-03-16	16.3	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.826	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8 Hours)			

Graph Showing SPM of Lakhanpur OCP



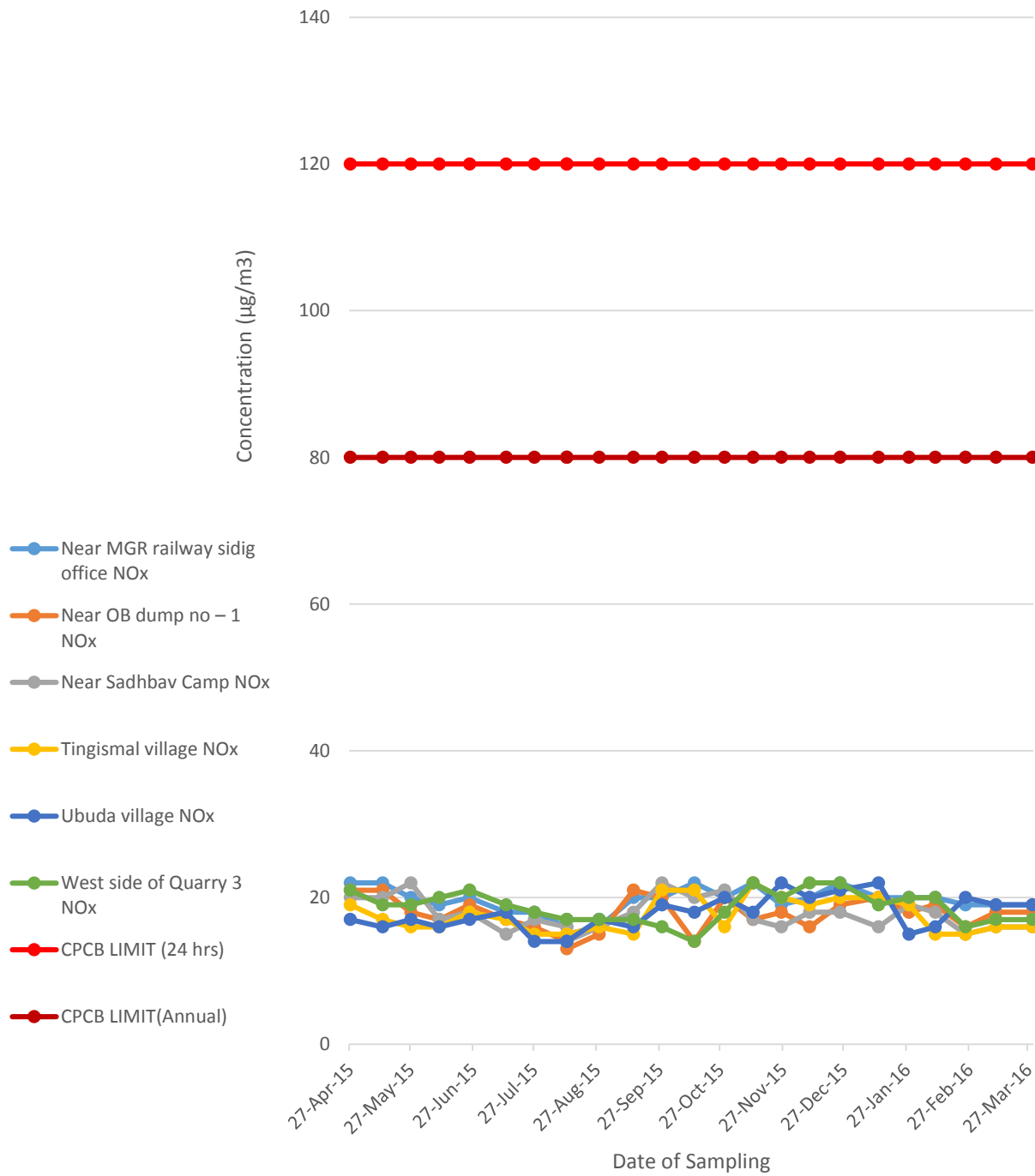
Graph Showing PM₁₀ of Lakhanpur OCP



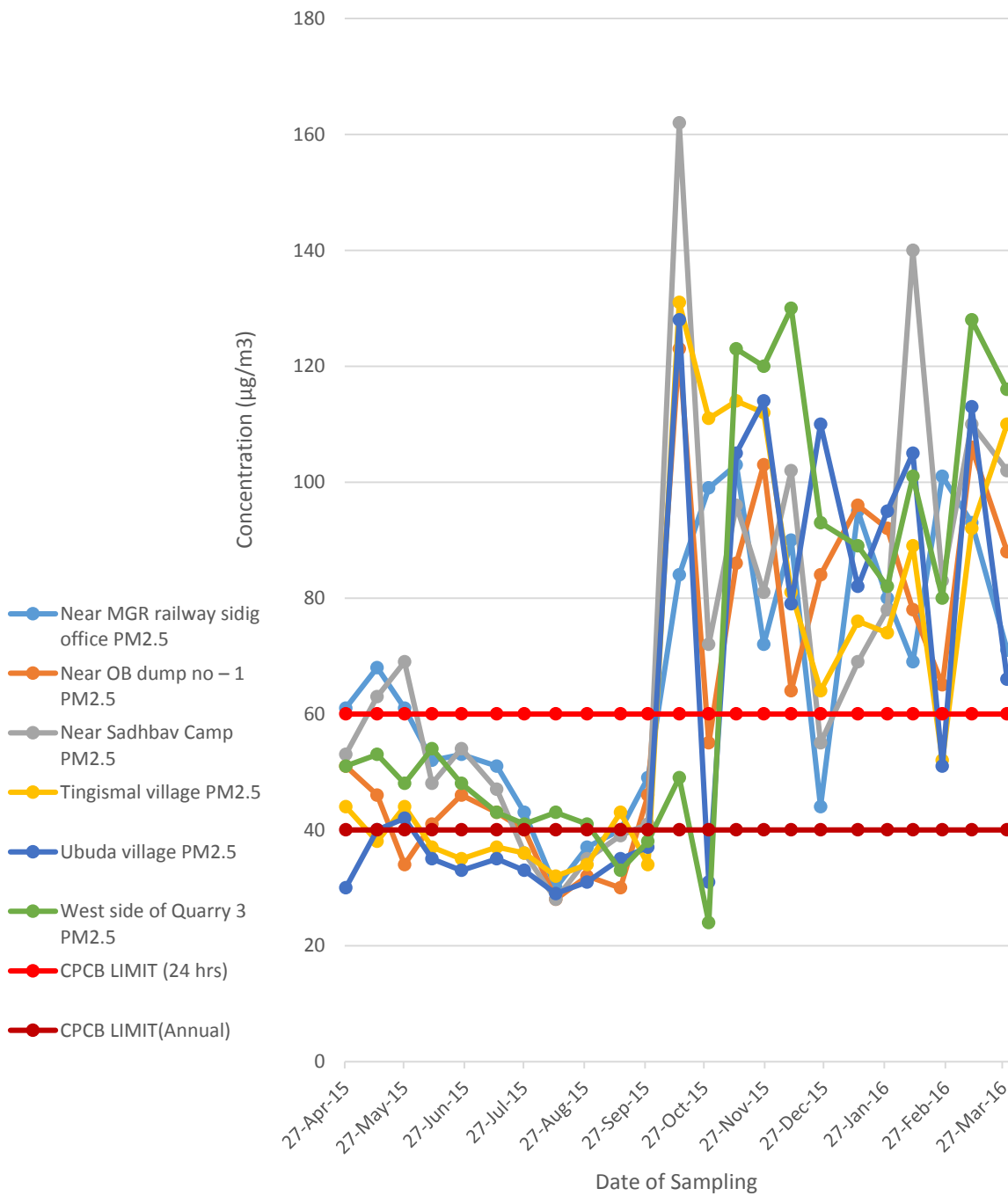
Graph Showing SO₂ of Lakhanpur OCP



Graph Showing NO_x of Lakhanpur OCP



Graph Showing PM_{2.5} of Lakhanpur OCP



Project: Lilari OCP
Monitoring Station: Near Lilari Pump House

Table 34

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	363	145	17	21	51	East to west hot & sunny
13-May-15	341	136	18	21	46	West to east hot & sunny
27-May-15	307	124	15	18	34	West to east hot & sunny
09-Jun-15	284	120	13	17	41	West to east hot & sunny
24-Jun-15	295	132	15	19	46	East to west hot & sunny
10-Jul-15	242	121	13	17	43	East to west sunny & cloudy rainfall
24-Jul-15	244	117	12	16	40	East to west hot & sunny heavy rainfall
11-Aug-15	210	103	11	14	28	East to west hot & sunny evening rainfall
25-Aug-15	164	61	10	13	32	East to west hot & sunny evening rainfall
11-Sep-15	193	60	12	15	30	East to west hot & sunny evening rainfall
25-Sep-15	288	124	17	21	46	East to west hot & sunny evening rainfall
13-Oct-15	265	173	15	20	123	East to west hot & sunny
28-Oct-15	156	89	11	14	55	East to west hot & sunny
10-Nov-15	540	222	15	20	86	East to west hot & sunny
25-Nov-15	280	130	13	17	103	East to west hot & sunny
09-Dec-15	290	170	14	18	64	East to west hot & sunny
24-Dec-15	188	104	10	16	84	West to east hot & sunny Evening Rainfall
12-Jan-16	331	174	16	19	96	East to west sunny
27-Jan-16	555	250	15	20	92	East to west sunny
09-Feb-16	479	185	15	18	78	East to west sunny
24-Feb-16	445	202	16	19	65	East to west sunny
10-Mar-16	520	215	11	16	106	East to west sunny
28-Mar-16	458	213	14	18	88	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	555.00	250.00	18.00	21.00	123.00	
Minimum	156.00	60.00	10.00	13.00	28.00	
Mean	323.39	146.52	13.83	17.70	64.22	
95 Percentile	538.00	221.30	17.00	21.00	105.70	
98 Percentile	548.40	237.68	17.56	21.00	115.52	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lilari OCP
Monitoring Station: Near magazine house

Table 35

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	262	101	15	18	49	East to west hot & sunny
14-May-15	280	97	15	19	51	East to west hot & sunny
28-May-15	230	101	14	17	52	East to west hot & sunny
09-Jun-15	234	105	13	17	43	West to east hot & sunny
24-Jun-15	207	101	14	17	40	East to west hot & sunny
10-Jul-15	190	90	12	17	39	East to west sunny & cloudy rainfall
24-Jul-15	192	83	12	15	28	East to west hot & sunny heavy rainfall
11-Aug-15	170	63	10	13	34	East to west hot & sunny evening rainfall
25-Aug-15	187	77	11	14	42	East to west hot & sunny evening rainfall
11-Sep-15	218	96	13	17	38	East to west hot & sunny evening rainfall
25-Sep-15	182	81	10	15	34	East to west hot & sunny evening rainfall
13-Oct-15	344	163	14	20	91	East to west hot & sunny
28-Oct-15	432	155	16	22	88	East to west hot & sunny
10-Nov-15	473	292	14	17	105	East to west hot & sunny
25-Nov-15	534	240	15	20	192	East to west hot & sunny
09-Dec-15	203	102	10	13	77	East to west hot & sunny
24-Dec-15	163	111	10	13	41	West to east hot & sunny Evening Rainfall
12-Jan-16	460	213	17	20	86	East to west sunny
27-Jan-16	316	250	11	14	67	East to west sunny
09-Feb-16	164	107	11	14	64	East to west sunny
24-Feb-16	289	156	15	19	79	East to west sunny
10-Mar-16	443	293	16	19	108	East to west sunny
28-Mar-16	188	138	11	14	85	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	534.00	293.00	17.00	22.00	192.00	
Minimum	163.00	63.00	10.00	13.00	28.00	
Mean	276.57	139.78	13.00	16.70	66.65	
95 Percentile	471.70	287.80	16.00	20.00	107.70	
98 Percentile	507.16	292.56	16.56	21.12	155.04	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Lilari OCP
Monitoring Station: Near old coal stock

Table 36

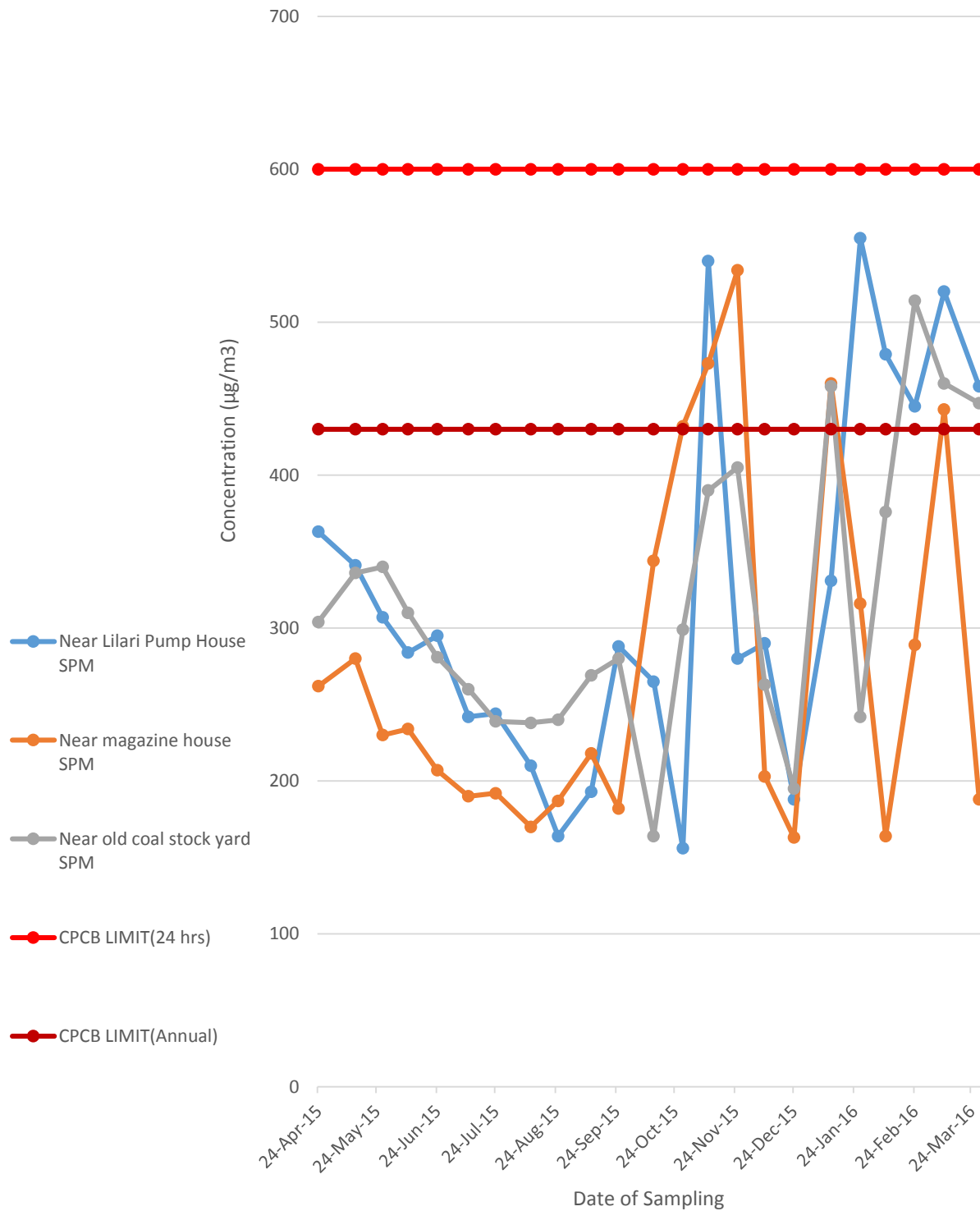
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
24-Apr-15	304	124	16	20	55	East to west hot & sunny
14-May-15	336	121	14	18	61	East to west hot & sunny
28-May-15	340	129	16	19	54	East to west hot & sunny
09-Jun-15	310	124	14	18	47	West to east hot & sunny
24-Jun-15	281	126	16	19	43	East to west hot & sunny
10-Jul-15	260	118	15	18	42	East to west sunny & cloudy rainfall
24-Jul-15	239	108	14	17	28	East to west hot & sunny heavy rainfall
11-Aug-15	238	103	13	15	34	East to west hot & sunny evening rainfall
25-Aug-15	240	108	13	16	37	East to west hot & sunny evening rainfall
11-Sep-15	269	116	14	18	41	East to west hot & sunny evening rainfall
25-Sep-15	280	134	16	20	48	East to west hot & sunny evening rainfall
13-Oct-15	164	88	12	15	53	East to west hot & sunny
28-Oct-15	299	165	16	19	63	East to west hot & sunny
10-Nov-15	390	210	11	16	82	East to west hot & sunny
25-Nov-15	405	187	16	21	126	East to west hot & sunny
09-Dec-15	263	207	12	16	81	East to west hot & sunny
24-Dec-15	195	148	12	16	85	West to east hot & sunny Evening Rainfall
12-Jan-16	458	267	18	21	72	East to west sunny
27-Jan-16	242	201	18	22	80	East to west sunny
09-Feb-16	376	230	12	15	87	East to west sunny
24-Feb-16	514	260	16	18	74	East to west sunny
10-Mar-16	460	239	12	16	94	East to west sunny
28-Mar-16	447	240	14	17	99	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	514.00	267.00	18.00	22.00	126.00	
Minimum	164.00	88.00	11.00	15.00	28.00	
Mean	317.83	163.17	14.35	17.83	64.61	
95 Percentile	459.80	258.00	17.80	21.00	98.50	
98 Percentile	490.24	263.92	18.00	21.56	114.12	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

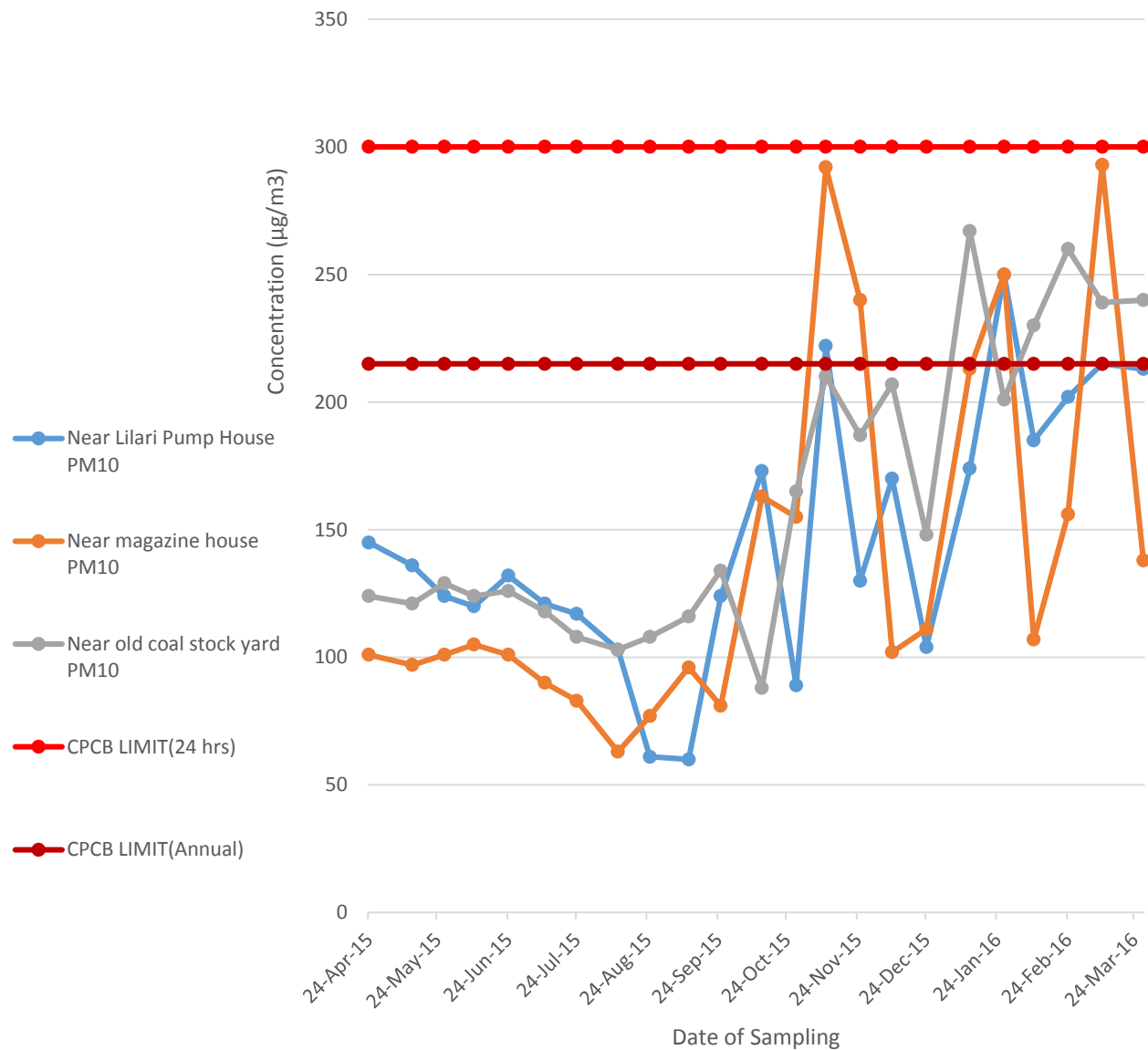
Table 37: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Near Magazine House	28-03-16	19.6	9.61	<0.07	<1.0	<1.0	<1.0	<0.02	0.912	<1.0	<1.0	<0.5
Near Old coal stock yard	28-03-16	18.3	10.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.864	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0(8Hours)			

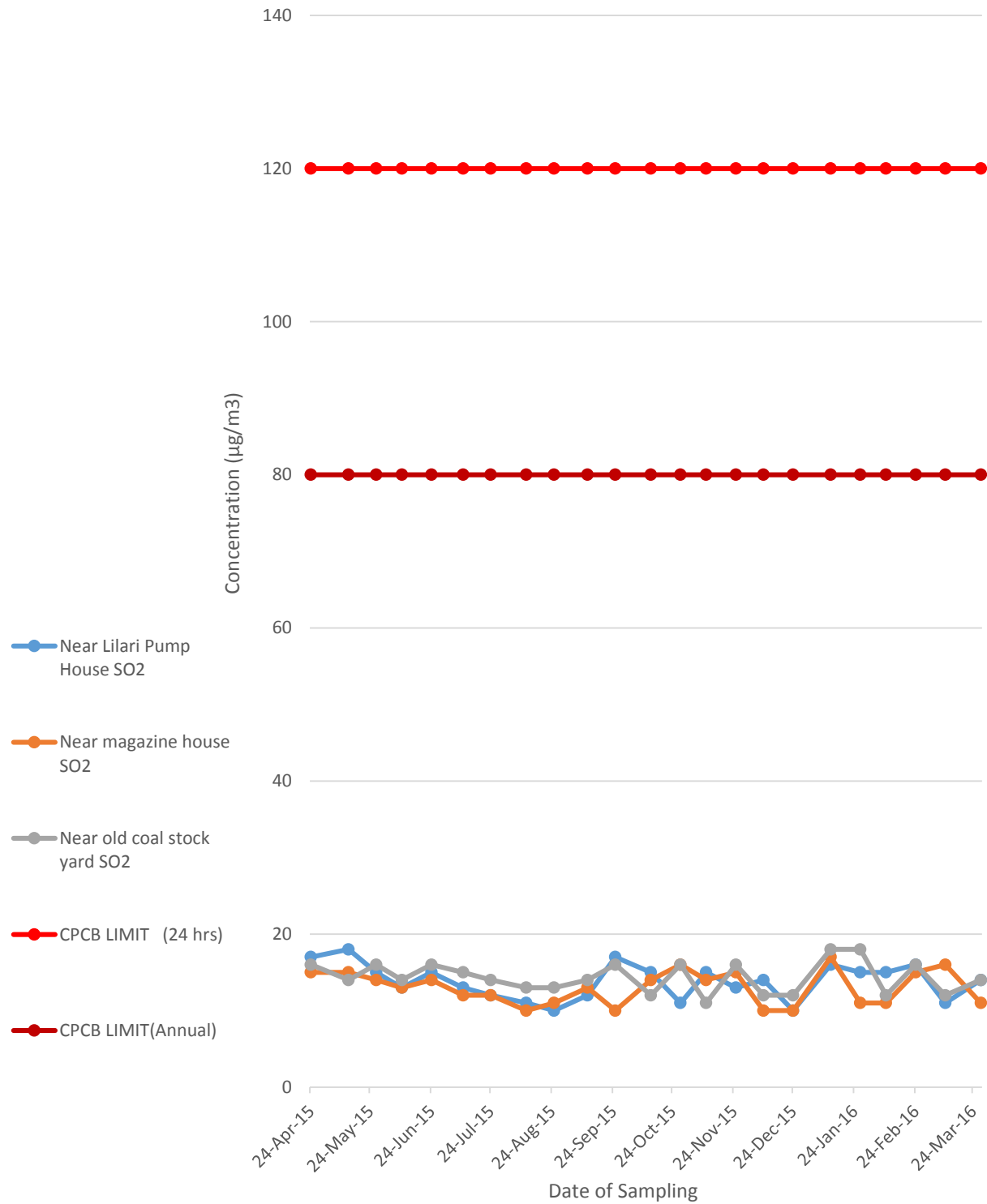
Graph Showing SPM of Lilari OCP



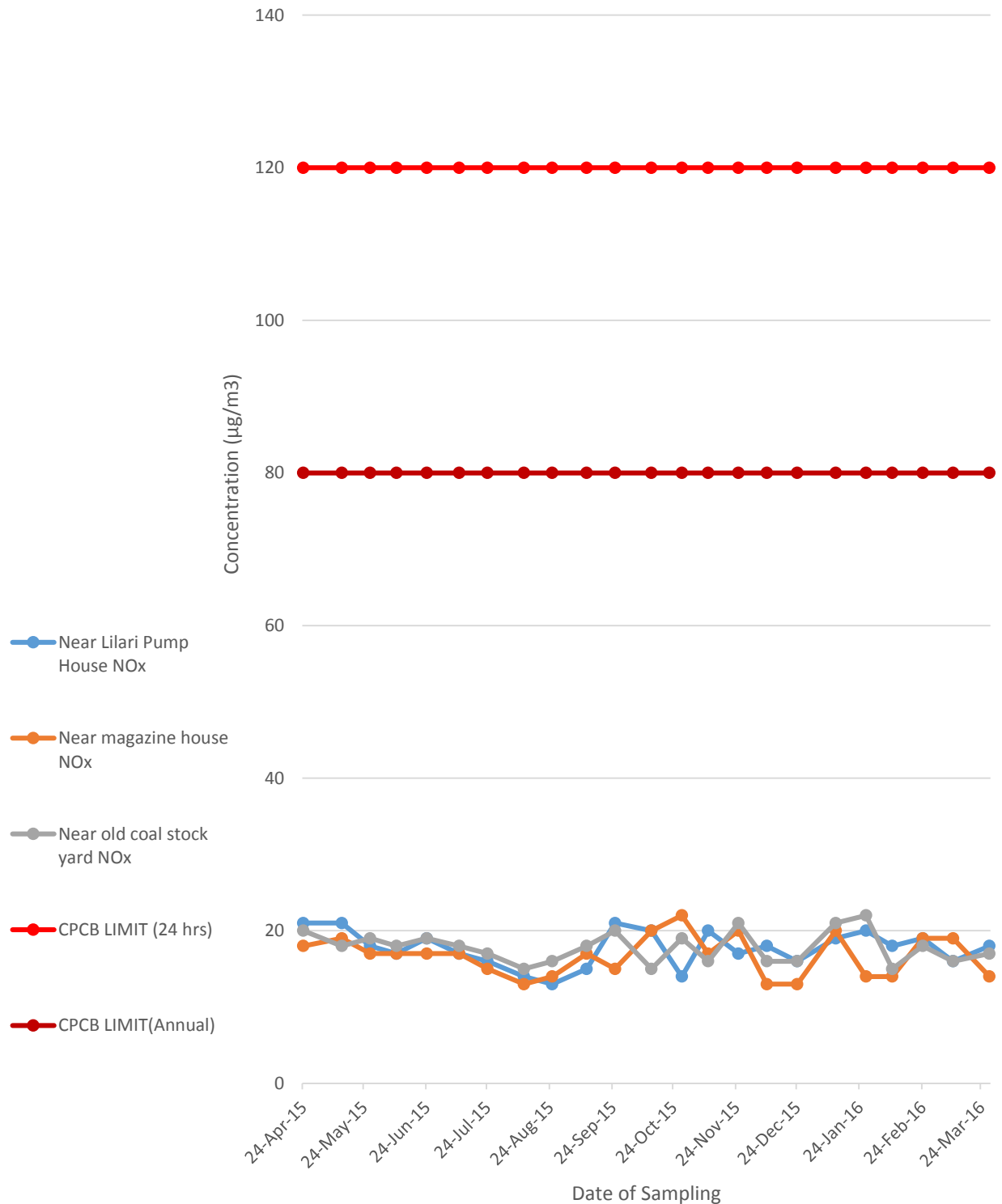
Graph Showing PM₁₀ of Lilari OCP

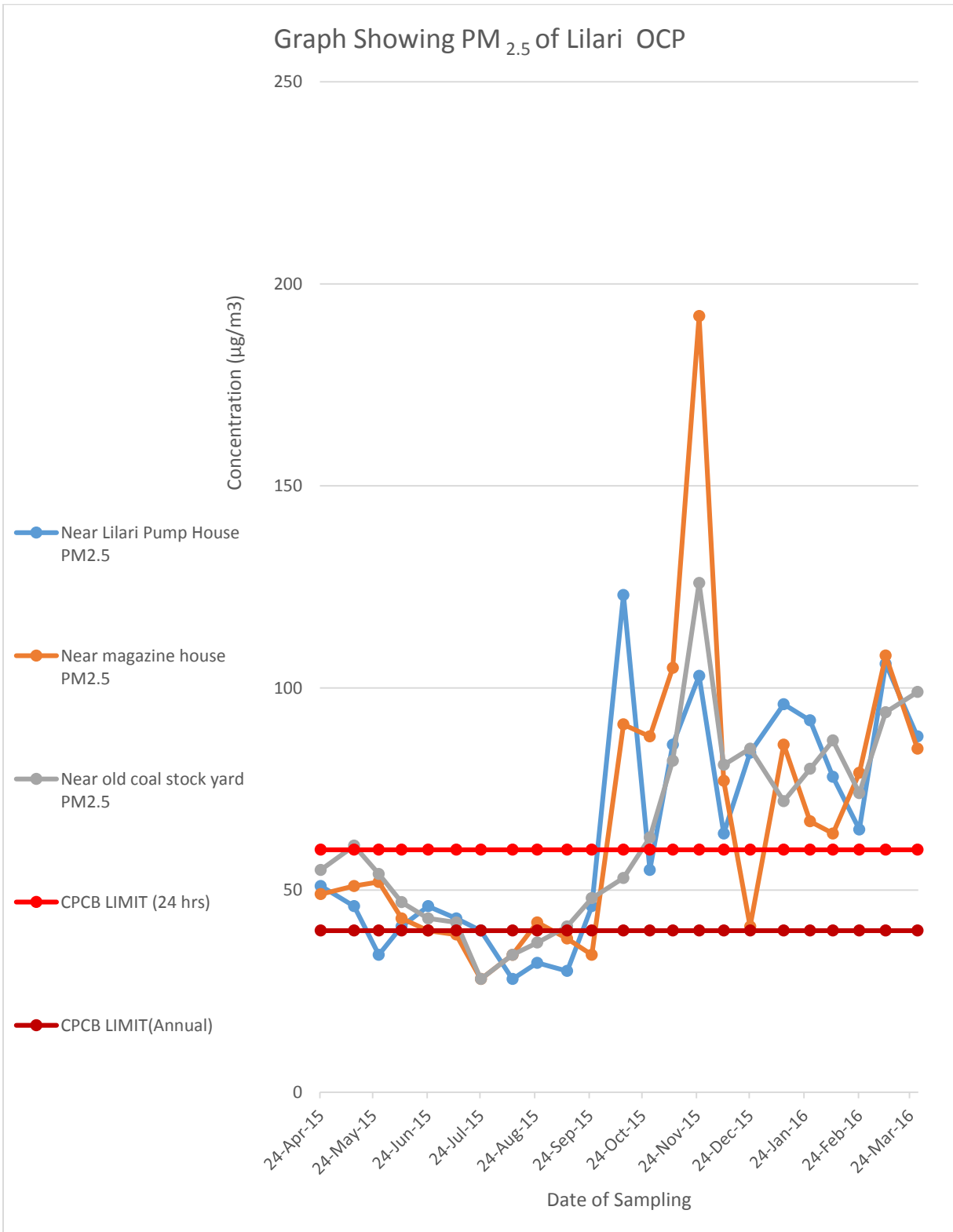


Graph Showing SO₂ of Lilari OCP



Graph Showing NO_x of Lilari OCP





Project: Belpahar OCP
Monitoring Station: Bandhabahal township/BITP

Table 38

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	232	98	14	18	43	West to East hot & sunny
11-May-15	207	101	14	17	47	West to East hot & sunny
25-May-15	210	98	14	18	47	East to west hot & sunny
11-Jun-15	186	90	13	17	44	West to east hot & sunny
26-Jun-15	180	81	13	16	34	East to west hot & sunny evening rainfall
14-Jul-15	172	77	12	15	35	East to west cloudy & rainfall
28-Jul-15	163	69	11	14	38	East to west hot & sunny heavy rainfall
13-Aug-15	154	81	10	14	35	East to west hot & sunny evening rainfall
27-Aug-15	163	62	10	13	46	East to west hot & sunny evening rainfall
15-Sep-15	208	103	14	19	42	East to west hot & sunny evening rainfall
29-Sep-15	197	98	13	16	40	East to west hot & sunny evening rainfall
15-Oct-15	531	280	14	18	131	East to west hot & sunny
30-Oct-15	456	310	16	20	111	East to west hot & sunny
13-Nov-15	580	283	16	19	94	East to west hot & sunny
27-Nov-15	446	190	15	18	92	East to west hot & sunny
11-Dec-15	338	109	10	12	71	East to west hot & sunny & Cloudy
28-Dec-15	313	243	13	16	67	West to east sunny
14-Jan-16	353	210	12	16	78	East to west sunny
29-Jan-16	331	241	18	22	93	East to west sunny
11-Feb-16	443	236	15	18	108	West to east sunny
26-Feb-16	378	154	15	18	48	East to west Cloudy Evening Rainfall
14-Mar-16	232	119	10	13	54	East to west sunny evening rainfall
30-Mar-16	357	185	11	15	105	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	580.00	310.00	18.00	22.00	131.00	
Minimum	154.00	62.00	10.00	12.00	34.00	
Mean	296.96	152.96	13.17	16.61	65.35	
95 Percentile	523.50	282.70	16.00	19.90	110.70	
98 Percentile	558.44	298.12	17.12	21.12	122.20	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Belpahar OCP
Monitoring Station: Near MDTP

Table 39

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	354	143	17	22	63	West to East hot & sunny
12-May-15	365	145	16	20	60	East to west hot & sunny
26-May-15	336	121	15	20	56	West to east hot & sunny
11-Jun-15	320	128	16	20	53	West to east hot & sunny
26-Jun-15	301	119	17	20	45	East to west hot & sunny evening rainfall
14-Jul-15	301	128	15	18	43	East to west cloudy & rainfall
28-Jul-15	260	113	14	17	44	East to west hot & sunny heavy rainfall
13-Aug-15	240	118	12	16	40	East to west hot & sunny evening rainfall
27-Aug-15	258	120	15	18	53	East to west hot & sunny evening rainfall
15-Sep-15	274	126	16	21	46	East to west hot & sunny evening rainfall
29-Sep-15	290	135	17	21	51	East to west hot & sunny evening rainfall
15-Oct-15	265	155	12	16	110	East to west hot & sunny
30-Oct-15	275	143	13	17	90	East to west hot & sunny
13-Nov-15	430	199	12	16	92	East to west hot & sunny
27-Nov-15	361	166	14	18	96	East to west hot & sunny
11-Dec-15	380	104	14	18	79	East to west hot & sunny & Cloudy
28-Dec-15	520	230	18	22	50	West to east sunny
14-Jan-16	464	217	18	23	83	East to west sunny
29-Jan-16	547	228	16	21	93	East to west sunny
11-Feb-16	587	276	17	20	118	West to east sunny
26-Feb-16	546	251	17	20	105	East to west Cloudy Evening Rainfall
14-Mar-16	439	202	14	17	81	East to west sunny evening rainfall
30-Mar-16	536	286	12	14	117	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	587.00	286.00	18.00	23.00	118.00	
Minimum	240.00	104.00	12.00	14.00	40.00	
Mean	376.04	167.52	15.09	18.91	72.52	
95 Percentile	546.90	273.50	17.90	22.00	116.30	
98 Percentile	569.40	281.60	18.00	22.56	117.56	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Belpahar OCP
Monitoring Station: Near Quarry no .5

Table 40

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	354	148	18	22	54	West to East hot & sunny
14-May-15	360	145	17	21	58	East to west hot & sunny
28-May-15	354	141	15	18	51	East to west hot & sunny
11-Jun-15	330	127	16	19	55	West to east hot & sunny
26-Jun-15	287	118	15	18	56	East to west hot & sunny evening rainfall
14-Jul-15	251	110	13	17	51	East to west cloudy & rainfall
28-Jul-15	240	115	12	15	44	East to west hot & sunny heavy rainfall
13-Aug-15	220	118	14	17	40	East to west hot & sunny evening rainfall
27-Aug-15	213	112	13	17	45	East to west hot & sunny evening rainfall
15-Sep-15	260	134	12	17	44	East to west hot & sunny evening rainfall
29-Sep-15	240	120	12	15	27	East to west hot & sunny evening rainfall
15-Oct-15	465	258	12	17	95	East to west hot & sunny
30-Oct-15	465	157	16	20	99	East to west hot & sunny
13-Nov-15	556	262	16	21	108	East to west hot & sunny
27-Nov-15	431	270	13	16	71	East to west hot & sunny
11-Dec-15	435	200	15	20	118	East to west hot & sunny & Cloudy
28-Dec-15	329	224	13	18	106	West to east sunny
14-Jan-16	590	276	13	17	92	East to west sunny
29-Jan-16	235	105	11	16	101	East to west sunny
11-Feb-16	550	253	17	19	92	West to east sunny
26-Feb-16	533	243	16	19	68	East to west Cloudy Evening Rainfall
14-Mar-16	590	211	15	18	64	East to west sunny evening rainfall
30-Mar-16	568	265	10	13	60	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	590.00	276.00	18.00	22.00	118.00	
Minimum	213.00	105.00	10.00	13.00	27.00	
Mean	385.04	178.78	14.09	17.83	69.52	
95 Percentile	587.80	269.50	17.00	21.00	107.80	
98 Percentile	590.00	273.36	17.56	21.56	113.60	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Belpahar OCP
Monitoring Station: Quarry 3 junction (tiffin point)

Table 41

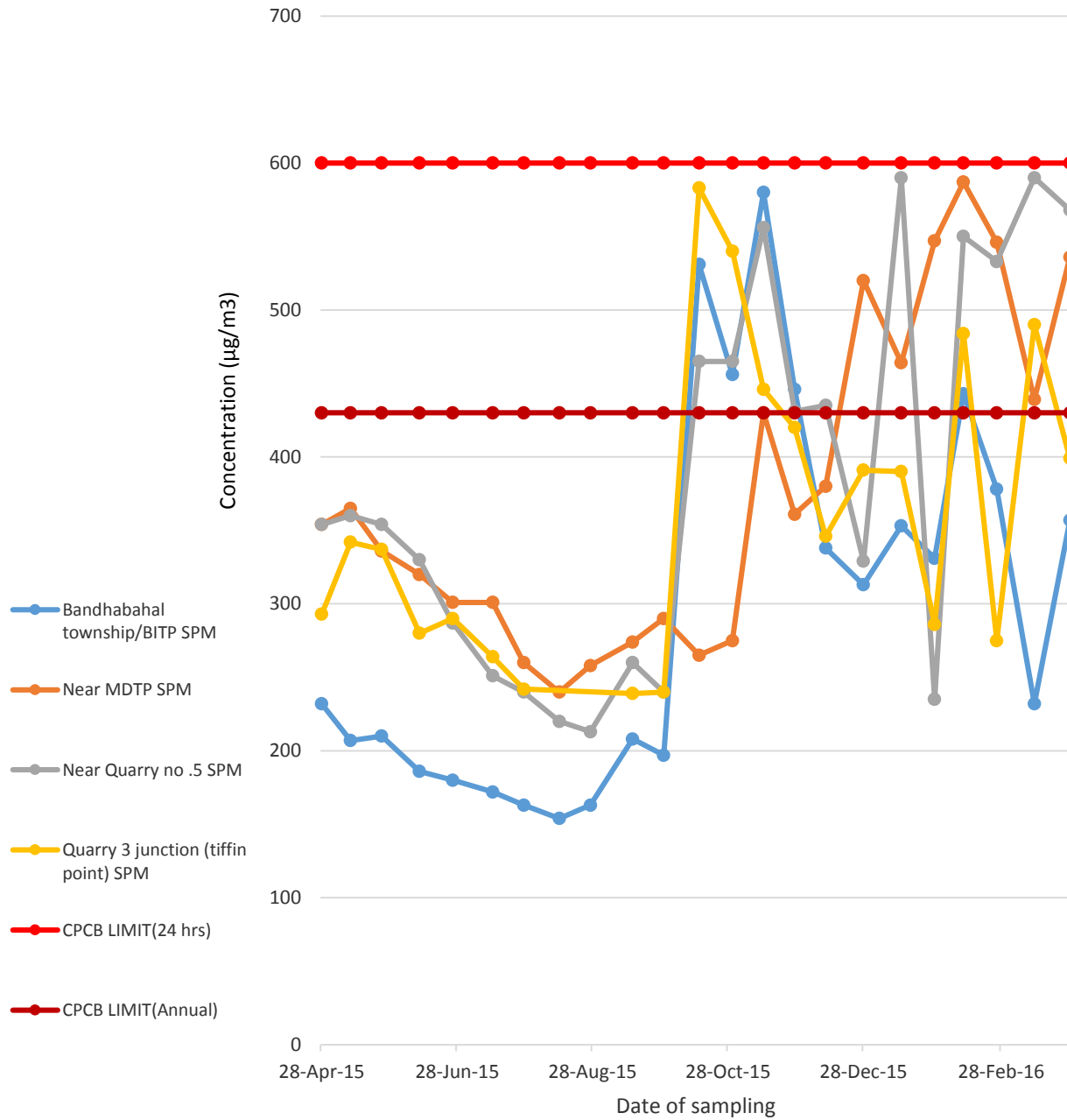
Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
28-Apr-15	293	109	15	20	40	West to East hot & sunny
14-May-15	342	123	16	19	48	East to west hot & sunny
28-May-15	337	138	16	19	57	East to west hot & sunny
11-Jun-15	280	125	14	18	53	West to east hot & sunny
26-Jun-15	290	121	16	19	50	East to west hot & sunny evening rainfall
14-Jul-15	264	114	14	17	44	East to west cloudy & rainfall
28-Jul-15	242	107	13	16	46	East to west hot & sunny heavy rainfall
13-Aug-15	Not to be Monitored as per Env officer BOCM					
27-Aug-15	Not to be Monitored as per Env officer BOCM					
15-Sep-15	239	84	11	16	38	East to west hot & sunny evening rainfall
29-Sep-15	240	102	14	17	36	East to west hot & sunny evening rainfall
15-Oct-15	583	343	17	20	167	East to west hot & sunny
30-Oct-15	540	229	17	23	118	East to west hot & sunny
13-Nov-15	446	210	13	17	95	East to west hot & sunny
27-Nov-15	420	240	14	19	135	East to west hot & sunny
11-Dec-15	346	132	16	19	101	East to west hot & sunny & Cloudy
28-Dec-15	391	230	14	18	136	West to east sunny
14-Jan-16	390	210	14	18	76	East to west sunny
29-Jan-16	286	126	12	16	103	East to west sunny
11-Feb-16	484	240	13	16	123	West to east sunny
26-Feb-16	275	93	13	17	59	East to west Cloudy Evening Rainfall
14-Mar-16	490	220	12	15	62	East to west sunny evening rainfall
30-Mar-16	399	246	12	15	56	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	583.00	343.00	17.00	23.00	167.00	
Minimum	239.00	84.00	11.00	15.00	36.00	
Mean	360.81	168.67	14.10	17.81	78.24	
95 Percentile	540.00	246.00	17.00	20.00	136.00	
98 Percentile	565.80	304.20	17.00	21.80	154.60	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

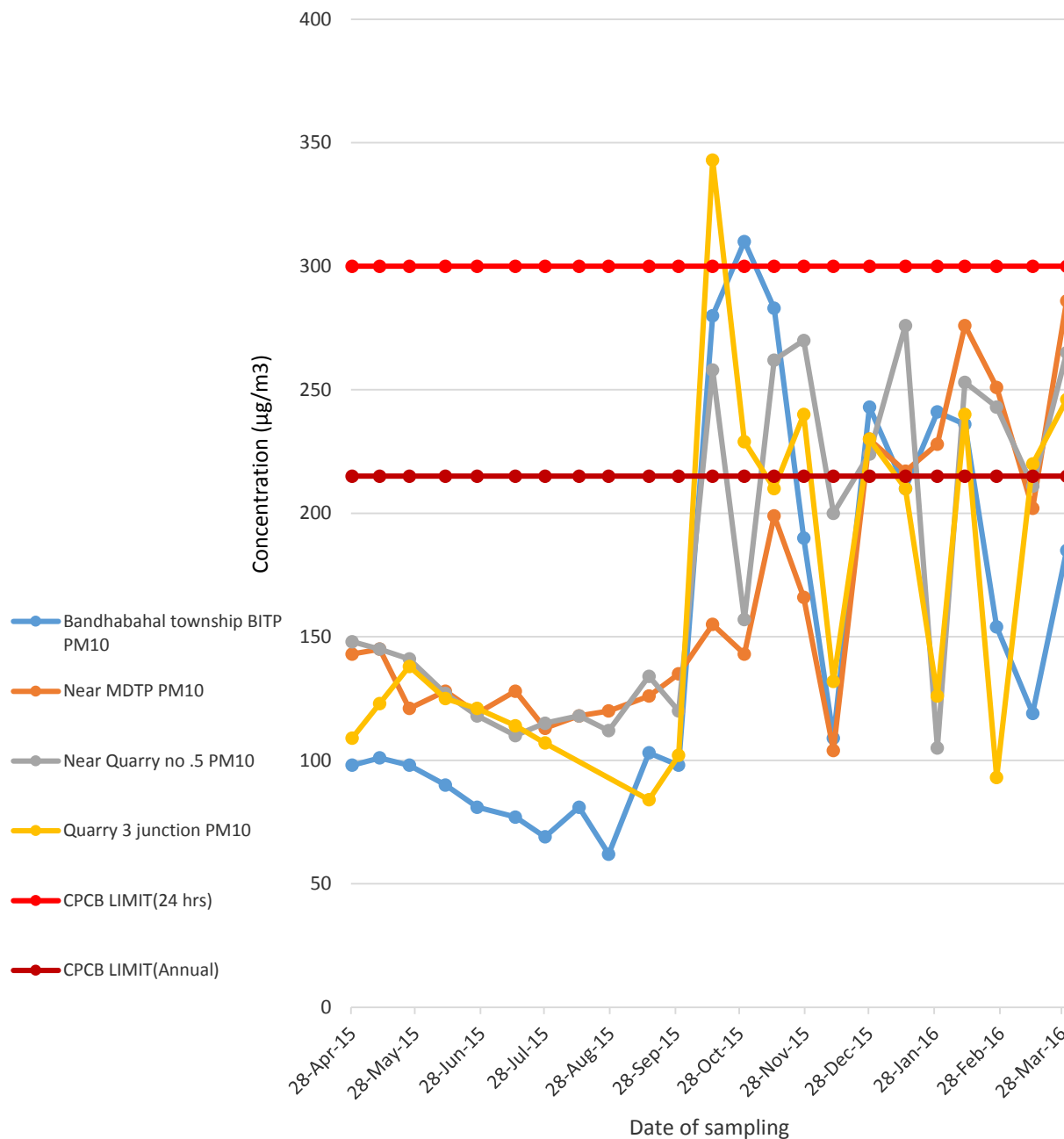
Table 42 : Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Near MDTP	30-03-16	21.5	9.7	<0.07	<1.0	<1.0	<1.0	<0.02	0.821	<1.0	<1.0	<0.5
Bandbahal Township/ BITP	30-03-16	20.6	9.61	<0.07	<1.0	<1.0	<1.0	<0.02	0.798	<1.0	<1.0	<0.5
Quarry 3 Junction (tiffin point)	30-03-16	18.2	10.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.916	<1.0	<1.0	<0.5
Near Quarry NO.5	30-03-16	19.6	9.52	<0.07	<1.0	<1.0	<1.0	<0.02	0.892	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

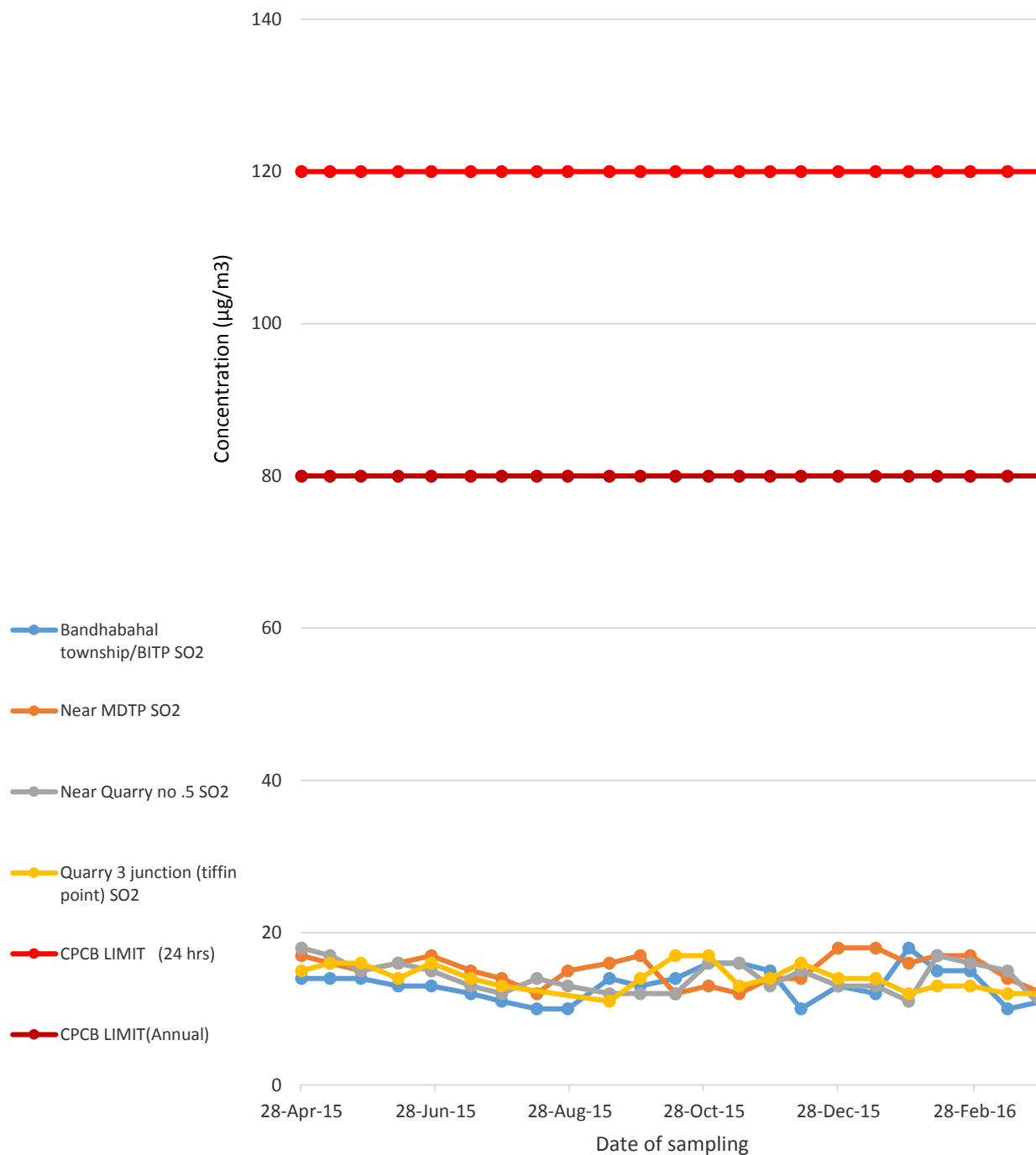
Graph showing SPM of Belpahar OCP



Graph showing PM₁₀ of Belpahar OCP



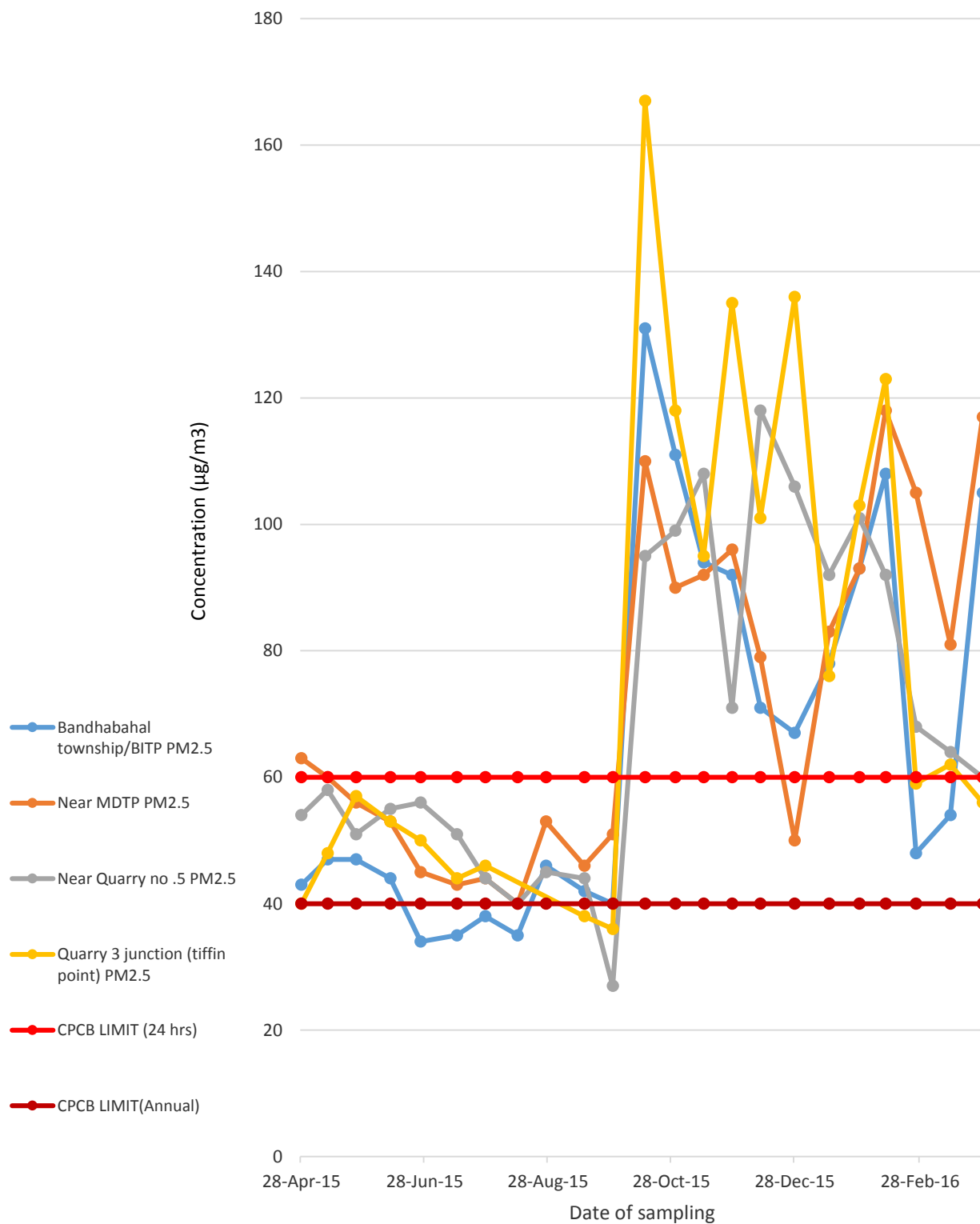
Graph showing SO₂ of Belpahar OCP



Graph showing NO_x of Belpahar OCP



Graph showing PM_{2.5} of Belpahar OCP



Project: Kulda OCP
Monitoring Station: Balinga Market
Table 43

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	232	106	14	14	50	West to east hot & sunny.
04-May-15	221	110	16	16	47	West to east hot & sunny.
18-May-15	203	106	15	15	45	East to west hot & sunny
01-Jun-15	210	101	13	13	43	West to east hot & sunny
17-Jun-15	236	114	15	15	36	West to east hot & sunny
03-Jul-15	240	118	14	14	39	East to west hot & sunny
17-Jul-15	213	104	14	14	35	West to east hot & sunny evening rainfall
04-Aug-15	210	101	13	13	36	West to east hot & sunny evening rainfall
18-Aug-15	250	107	14	17	35	West to east hot & sunny evening rainfall
04-Sep-15	270	128	15	15	36	West to east hot & sunny evening rainfall
16-Sep-15	263	123	16	16	43	West to east hot & sunny evening rainfall
06-Oct-15	529	281	19	22	161	West to east hot & sunny
19-Oct-15	445	298	18	23	145	West to east hot & sunny
03-Nov-15	441	206	14	17	93	West to east hot & sunny
17-Nov-15	328	145	11	15	80	West to east hot & sunny
02-Dec-15	180	86	10	13	58	West to east hot & sunny
17-Dec-15	447	191	15	20	122	West to east hot & sunny
05-Jan-16	388	187	13	16	87	West to east sunny
19-Jan-16	503	215	12	16	49	West to east sunny
02-Feb-16	520	272	16	19	118	West to east sunny
17-Feb-16	566	261	19	22	119	West to east sunny
03-Mar-16	409	227	12	15	138	West to east sunny
17-Mar-16	376	183	14	18	55	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	566.00	298.00	19.00	23.00	161.00	
Minimum	180.00	86.00	10.00	13.00	35.00	
Mean	333.91	163.91	14.43	16.43	72.61	
95 Percentile	528.10	280.10	18.90	22.00	144.30	
98 Percentile	549.72	290.52	19.00	22.56	153.96	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Kulda OCP
Monitoring Station: Karlikachhar village

Table 44

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	218	103	15	15	42	East to west hot & sunny
04-May-15	190	102	13	13	39	West to East hot & sunny
18-May-15	196	84	14	14	37	East to west hot & sunny
01-Jun-15	178	82	14	14	41	West to east hot & sunny
17-Jun-15	173	74	12	12	37	West to east hot & sunny
03-Jul-15	180	78	12	12	39	East to west hot & sunny
17-Jul-15	158	71	12	12	29	West to east hot & sunny evening rainfall
04-Aug-15	132	44	10	10	19	West to east hot & sunny evening rainfall
18-Aug-15	177	71	10	13	29	West to east hot & sunny evening rainfall
03-Sep-15	147	68	12	12	43	West to east hot & sunny evening rainfall
16-Sep-15	170	76	11	11	28	West to east hot & sunny evening rainfall
06-Oct-15	221	147	12	16	123	West to east hot & sunny
19-Oct-15	246	155	12	15	140	West to east hot & sunny
03-Nov-15	532	258	16	19	104	West to east hot & sunny
17-Nov-15	335	156	11	16	92	West to east hot & sunny
02-Dec-15	470	190	16	20	102	West to east hot & sunny
17-Dec-15	239	191	14	19	127	West to east hot & sunny
05-Jan-16	577	272	17	20	118	West to east sunny
19-Jan-16	340	253	12	17	103	West to east sunny
02-Feb-16	357	178	14	18	72	West to east sunny
17-Feb-16	479	124	14	17	65	West to east sunny
03-Mar-16	564	268	14	17	99	West to east sunny
17-Mar-16	550	175	16	19	41	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	577.00	272.00	17.00	20.00	140.00	
Minimum	132.00	44.00	10.00	10.00	19.00	
Mean	296.91	140.00	13.17	15.26	68.22	
95 Percentile	562.60	267.00	16.00	19.90	126.60	
98 Percentile	571.28	270.24	16.56	20.00	134.28	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

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

Project: Kulda OCP
Monitoring Station: Farakbahal village
Table 45

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	230	110	14	14	44	East to west hot & sunny
05-May-15	193	90	14	14	36	West to East hot & sunny
18-May-15	187	91	13	13	39	East to west hot & sunny
01-Jun-15	201	90	14	14	40	West to east hot & sunny
17-Jun-15	174	78	13	13	38	West to east hot & sunny
03-Jul-15	201	86	13	13	42	East to west hot & sunny
17-Jul-15	145	66	11	11	26	West to east hot & sunny evening rainfall
04-Aug-15	133	58	10	10	21	West to east hot & sunny evening rainfall
18-Aug-15	180	73	11	15	32	West to east hot & sunny evening rainfall
04-Sep-15	141	74	11	11	35	West to east hot & sunny evening rainfall
16-Sep-15	180	83	10	10	25	West to east hot & sunny evening rainfall
05-Oct-15	191	105	11	15	82	West to east hot & sunny
16-Oct-15	348	192	15	21	92	West to east hot & sunny
03-Nov-15	301	130	11	15	111	West to east hot & sunny
17-Nov-15	338	158	12	16	117	West to east hot & sunny
02-Dec-15	473	163	18	21	58	West to east hot & sunny
17-Dec-15	216	139	12	16	97	West to east hot & sunny
05-Jan-16	217	81	12	15	75	West to east sunny
19-Jan-16	302	163	14	18	65	West to east sunny
02-Feb-16	535	261	15	19	118	West to east sunny
17-Feb-16	497	193	17	20	92	West to east sunny
03-Mar-16	427	281	13	16	137	West to east sunny
17-Mar-16	543	170	15	17	53	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	543.00	281.00	18.00	21.00	137.00	
Minimum	133.00	58.00	10.00	10.00	21.00	
Mean	276.22	127.61	13.00	15.09	64.13	
95 Percentile	531.20	254.20	16.80	20.90	117.90	
98 Percentile	539.48	272.20	17.56	21.00	128.64	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Kulda OCP
Monitoring Station: Near Tumulia
Table 46

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	194	75	13	13	38	East to west hot & sunny
04-May-15	218	112	14	14	48	West to East hot & sunny
18-May-15	240	117	16	16	43	East to west hot & sunny
02-Jun-15	232	108	14	14	46	West to east hot & sunny
17-Jun-15	248	107	13	13	41	West to east hot & sunny
03-Jul-15	270	119	15	15	49	East to west hot & sunny
17-Jul-15	230	107	14	14	43	West to east hot & sunny evening rainfall
04-Aug-15	215	79	12	12	40	West to east hot & sunny evening rainfall
18-Aug-15	190	91	12	15	41	West to east hot & sunny evening rainfall
03-Sep-15	240	116	14	14	42	West to east hot & sunny evening rainfall
18-Sep-15	248	84	14	14	28	West to east hot & sunny evening rainfall
06-Oct-15	222	84	13	16	66	West to east hot & sunny
19-Oct-15	346	199	15	19	67	West to east hot & sunny
03-Nov-15	453	162	15	19	78	West to east hot & sunny
17-Nov-15	353	126	14	18	92	West to east hot & sunny
02-Dec-15	297	183	13	17	111	West to east hot & sunny
17-Dec-15	357	214	13	16	45	West to east hot & sunny
05-Jan-16	473	213	15	18	78	West to east sunny
19-Jan-16	548	247	15	20	103	West to east sunny
02-Feb-16	430	136	12	15	76	West to east sunny
17-Feb-16	311	190	13	16	79	West to east sunny
03-Mar-16	397	197	13	17	135	West to east sunny
17-Mar-16	353	174	12	16	41	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	548.00	247.00	16.00	20.00	135.00	
Minimum	190.00	75.00	12.00	12.00	28.00	
Mean	307.17	140.87	13.65	15.70	62.17	
95 Percentile	471.00	213.90	15.00	19.00	110.20	
98 Percentile	515.00	232.48	15.56	19.56	124.44	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

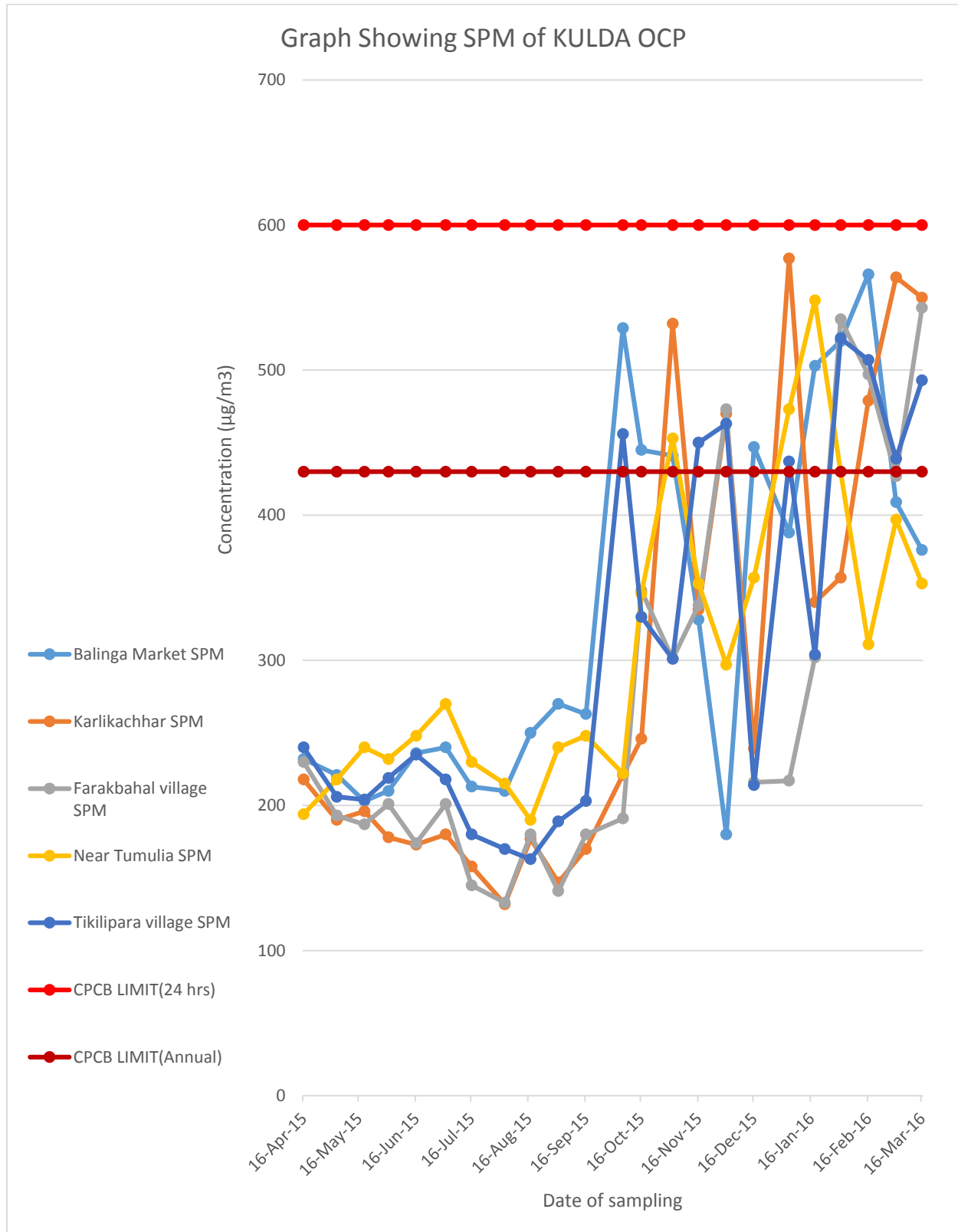
Project: Kulda OCP
Monitoring Station: Tikilipara village
Table 47

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
16-Apr-15	240	110	16	16	46	East to west hot & sunny
04-May-15	206	97	15	15	43	West to East hot & sunny
19-May-15	204	98	14	14	41	East to west hot & sunny
01-Jun-15	219	98	15	15	44	West to east hot & sunny
16-Jun-15	235	83	14	14	40	West to east hot & sunny
02-Jul-15	218	94	13	13	41	East to west hot & sunny
16-Jul-15	180	82	13	13	33	West to east hot & sunny
03-Aug-15	170	83	12	12	18	West to east hot & sunny evening rainfall
17-Aug-15	163	59	11	14	24	West to east hot & sunny evening rainfall
01-Sep-15	189	81	10	10	28	West to east hot & sunny evening rainfall
16-Sep-15	203	91	12	12	30	West to east hot & sunny evening rainfall
06-Oct-15	456	291	16	20	140	West to east hot & sunny
16-Oct-15	330	191	17	20	84	West to east hot & sunny
02-Nov-15	301	122	11	14	75	West to east hot & sunny
16-Nov-15	450	221	17	20	65	West to east hot & sunny
01-Dec-15	463	210	15	19	126	West to east hot & sunny
16-Dec-15	214	149	11	16	58	West to east hot & sunny
04-Jan-16	437	253	17	21	49	East to west sunny
18-Jan-16	304	208	11	15	26	West to east sunny
01-Feb-16	522	232	17	20	103	West to east sunny
16-Feb-16	507	191	18	21	69	West to east sunny
02-Mar-16	439	261	13	16	126	West to east sunny
16-Mar-16	493	240	13	16	104	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	522.00	291.00	18.00	21.00	140.00	
Minimum	163.00	59.00	10.00	10.00	18.00	
Mean	310.57	154.13	13.96	15.91	61.43	
95 Percentile	505.60	260.20	17.00	20.90	126.00	
98 Percentile	515.40	277.80	17.56	21.00	133.84	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

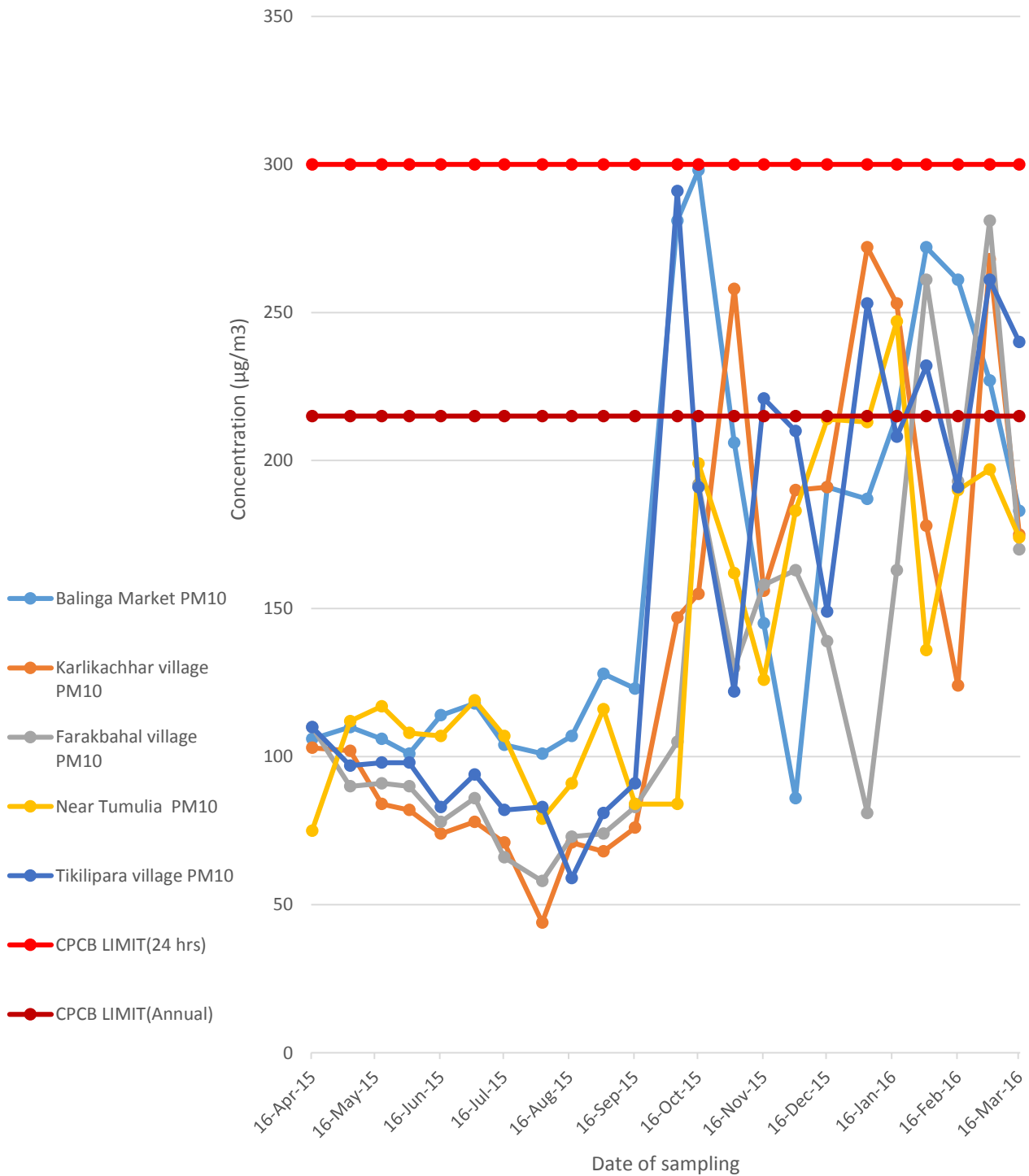
All values are in µg/m³

Table 48: Analysis of Heavy Metals & NAAQS Parameters

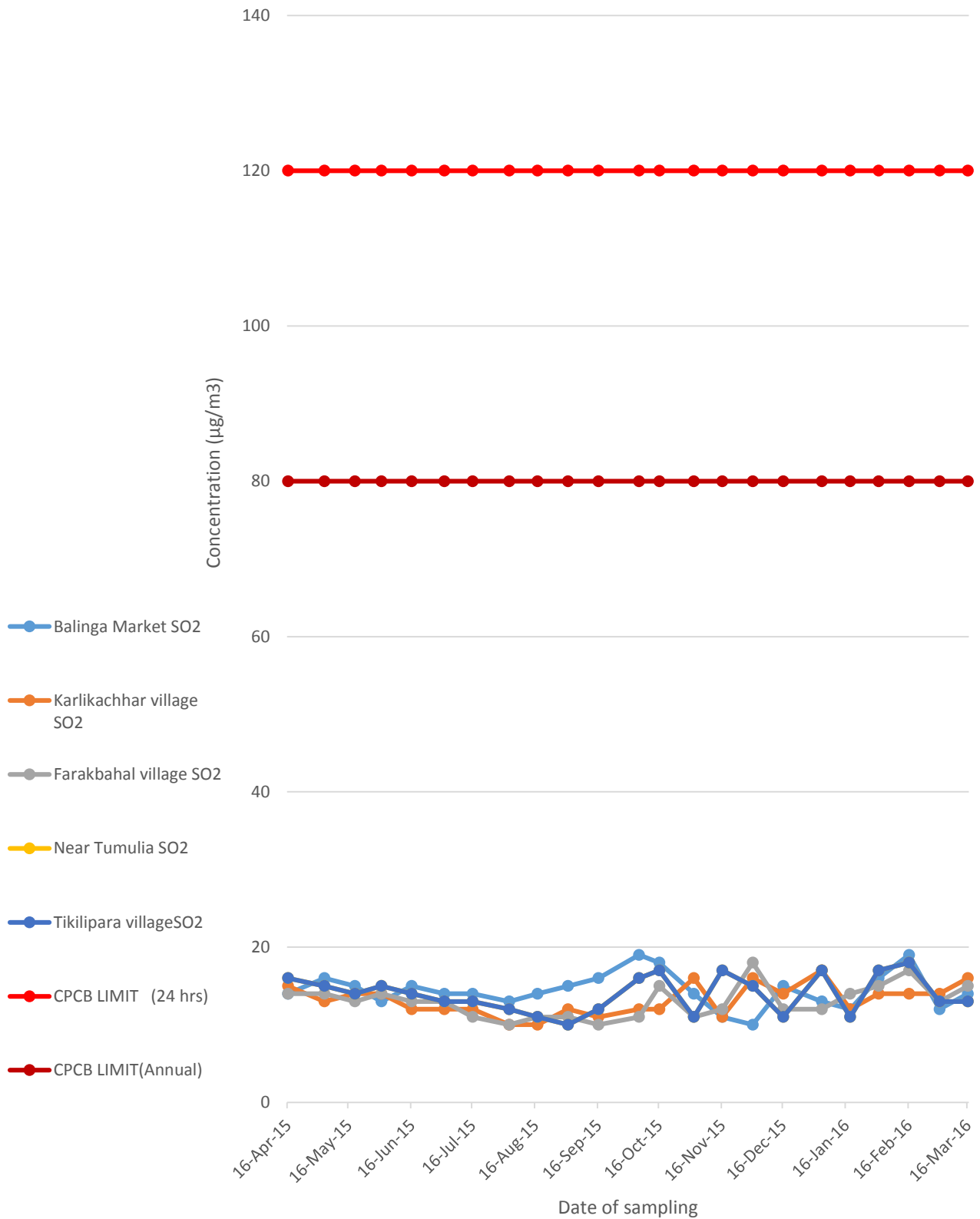
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Farakbahal village	17-03-16	20.5	9.63	<0.07	<1.0	<1.0	<1.0	<0.02	0.753	<1.0	<1.0	<0.5
Karlikachhar village	17-03-16	19.6	9.52	<0.07	<1.0	<1.0	<1.0	<0.02	0.523	<1.0	<1.0	<0.5
Tiklipara village	16-03-16	18.5	8.65	<0.07	<1.0	<1.0	<1.0	<0.02	0.618	<1.0	<1.0	<0.5
Balinga market	17-03-16	19.8	8.6	<0.07	<1.0	<1.0	<1.0	<0.02	0.826	<1.0	<1.0	<0.5
Near Tumlia	17-03-16	15.9	9.42	<0.07	<1.0	<1.0	<1.0	<0.02	0.872	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			



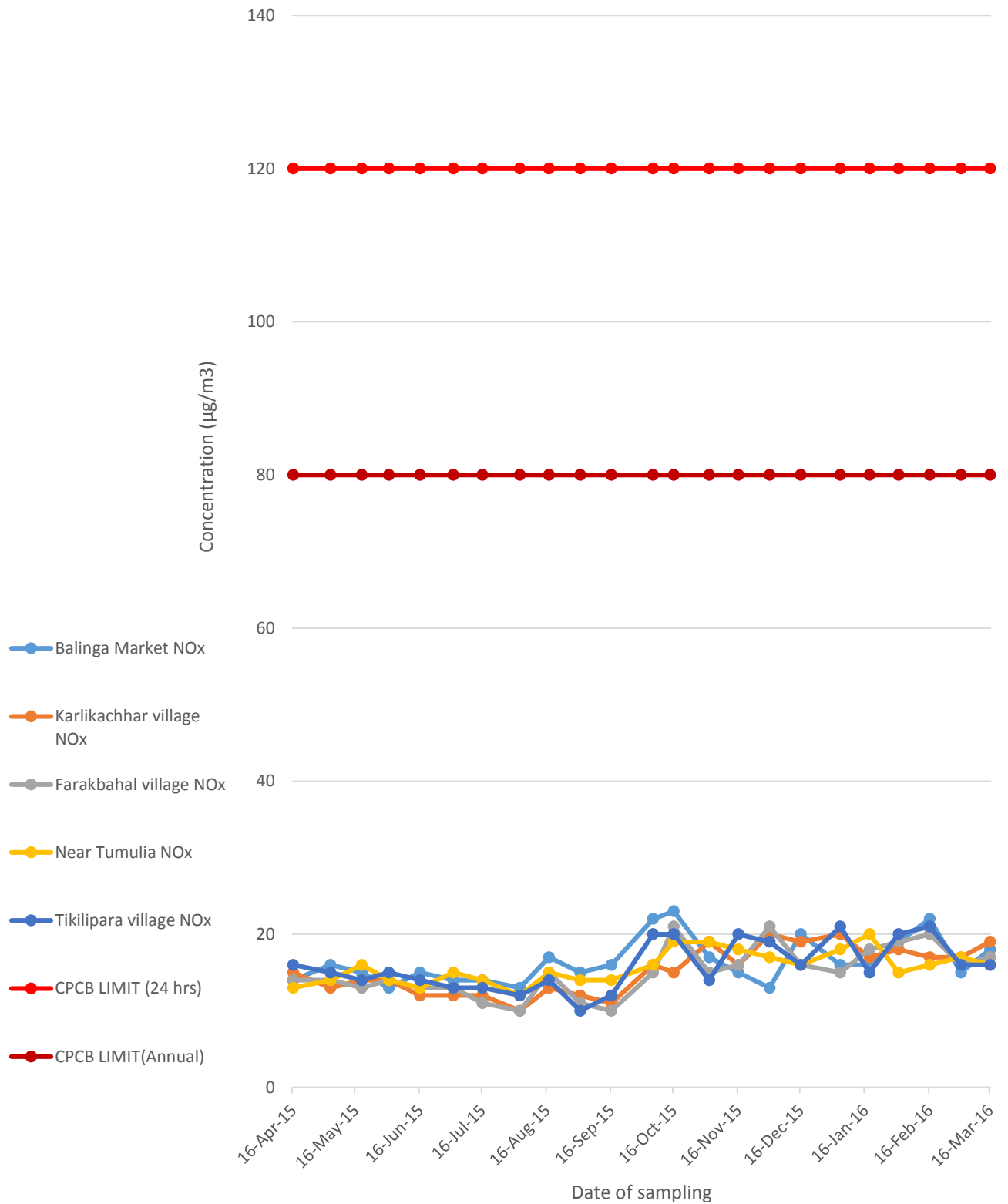
Graph Showing PM₁₀ of KULDA OCP



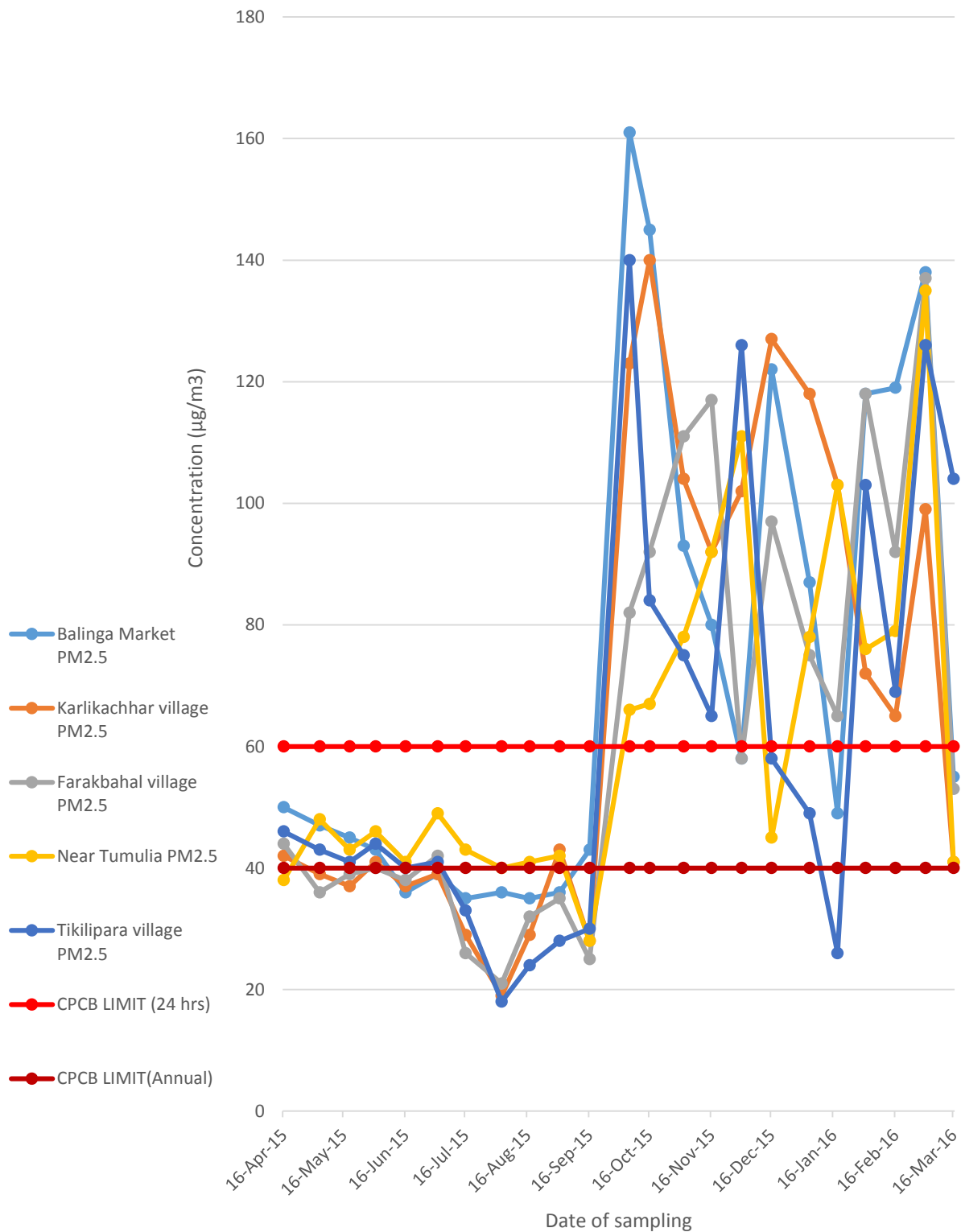
Graph Showing SO₂ of KULDA OCP



Graph Showing NO_x of KULDA OCP



Graph Showing PM_{2.5} of KULDA OCP



Project: Basundhara OCP
Monitoring Station: Khamarpara

Table 49

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	201	96	15	18	43	West to East hot & sunny
05-May-15	295	120	16	20	58	West to East hot & sunny
19-May-15	340	137	17	21	62	East to west hot & sunny
02-Jun-15	320	129	16	19	52	West to east hot & sunny
16-Jun-15	304	118	15	18	46	West to east hot & sunny
02-Jul-15	321	122	16	19	55	East to west hot & sunny
16-Jul-15	298	115	15	18	48	West to east hot & sunny
03-Aug-15	223	107	14	17	42	West to east hot & sunny evening rainfall
17-Aug-15	170	79	12	15	39	West to east hot & sunny evening rainfall
01-Sep-15	215	105	13	16	36	West to east hot & sunny evening rainfall
18-Sep-15	205	68	13	16	36	West to east hot & sunny evening rainfall
05-Oct-15	232	57	10	13	36	West to east hot & sunny
19-Oct-15	266	100	12	17	86	West to east hot & sunny
02-Nov-15	480	239	14	18	88	West to east hot & sunny
16-Nov-15	413	140	19	22	104	West to east hot & sunny
01-Dec-15	517	270	19	22	134	West to east hot & sunny
16-Dec-15	216	188	11	14	66	West to east hot & sunny
04-Jan-16	459	244	17	21	74	East to west sunny
18-Jan-16	244	148	18	22	78	West to east sunny
01-Feb-16	598	234	18	21	111	West to east sunny
16-Feb-16	350	147	14	17	77	West to east sunny
02-Mar-16	292	182	13	16	85	West to east sunny
16-Mar-16	251	146	13	15	88	West to east sunny
Brief Statistic	SPM	PM10	SO2	NOx	PM2.5	
Maximum	598.00	270.00	19.00	22.00	134.00	
Minimum	170.00	57.00	10.00	13.00	36.00	
Mean	313.48	143.09	14.78	18.04	67.13	
95 Percentile	513.30	243.50	18.90	22.00	110.30	
98 Percentile	562.36	258.56	19.00	22.00	123.88	
Standard (Annual)	600	300	120	120	60	

All values are in µg/m³

Project: Basundhara OCP
Monitoring Station: Near CHP

Table 50

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	355	138	17	21	63	West to East hot & sunny
05-May-15	359	151	17	22	64	West to East hot & sunny
19-May-15	355	154	16	20	53	East to west hot & sunny
02-Jun-15	340	138	15	19	50	West to east hot & sunny
16-Jun-15	345	143	17	21	51	West to east hot & sunny
02-Jul-15	347	136	15	20	53	East to west hot & sunny
16-Jul-15	323	132	15	20	46	West to east hot & sunny
03-Aug-15	250	116	15	18	55	West to east hot & sunny evening rainfall
17-Aug-15	230	107	11	14	53	West to east hot & sunny evening rainfall
01-Sep-15	230	103	15	18	50	West to east hot & sunny evening rainfall
18-Sep-15	201	83	12	15	40	West to east hot & sunny evening rainfall
05-Oct-15	228	106	11	14	87	West to east hot & sunny
16-Oct-15	295	197	13	18	88	West to east hot & sunny
02-Nov-15	501	240	16	19	80	West to east hot & sunny
16-Nov-15	545	261	12	18	121	West to east hot & sunny
01-Dec-15	277	149	11	15	39	West to east hot & sunny
16-Dec-15	298	208	10	15	117	West to east hot & sunny
04-Jan-16	452	276	18	23	92	East to west sunny
18-Jan-16	375	233	11	16	81	West to east sunny
01-Feb-16	587	289	19	22	73	West to east sunny
16-Feb-16	503	298	15	19	127	West to east sunny
02-Mar-16	531	220	17	19	97	West to east sunny
16-Mar-16	558	222	15	19	115	West to east sunny
Brief Statistic	SPM	PM10	SO2	NOx	PM2.5	
Maximum	587.00	298.00	19.00	23.00	127.00	
Minimum	201.00	83.00	10.00	14.00	39.00	
Mean	368.91	178.26	14.48	18.48	73.70	
95 Percentile	556.70	287.70	17.90	22.00	120.60	
98 Percentile	574.24	294.04	18.56	22.56	124.36	
Standard (Annual)	600	300	120	120	60	

All values are in µg/m³

Project: Basundhara OCP
Monitoring Station: Near Embankment

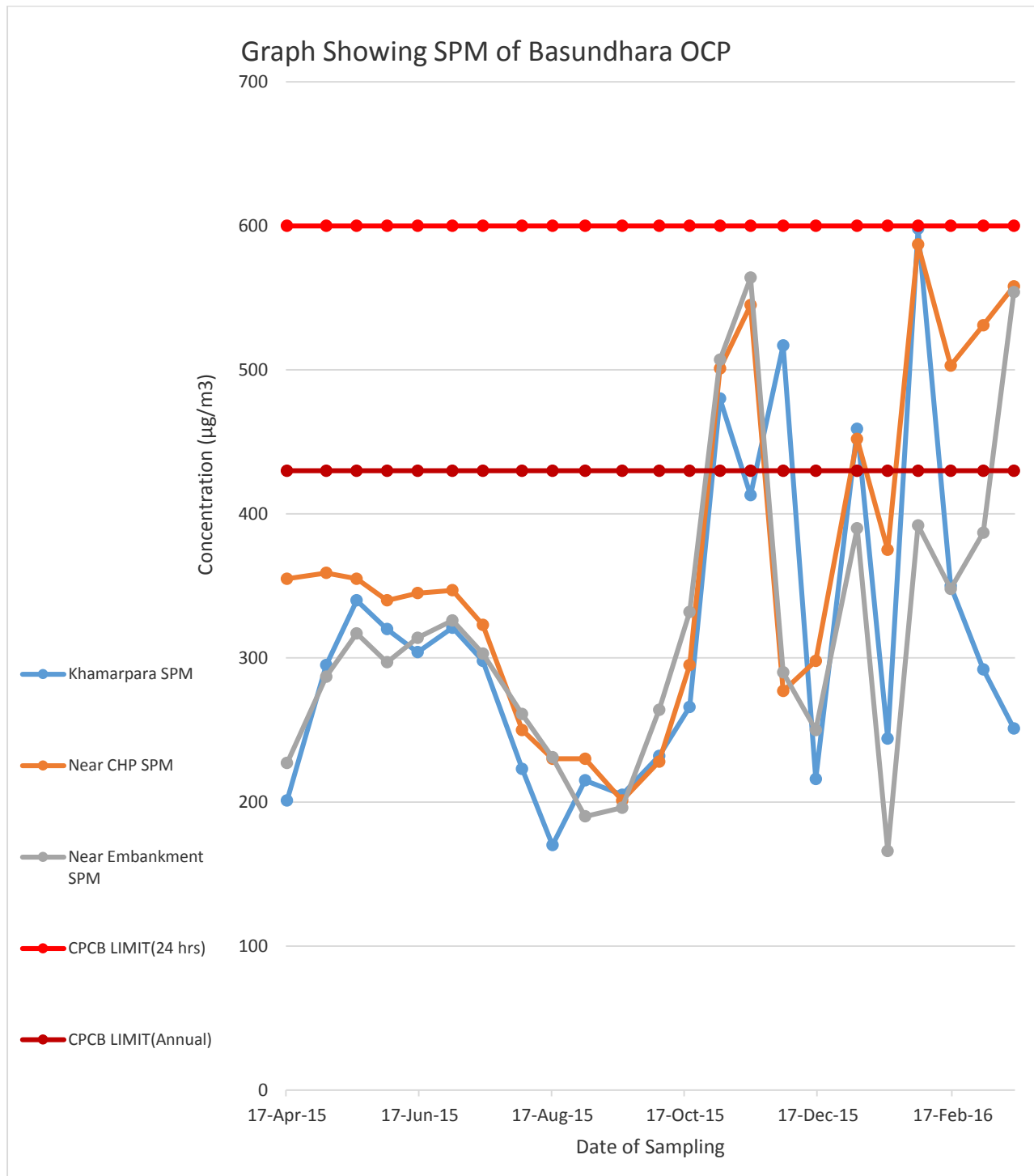
Table 51

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
17-Apr-15	227	94	16	19	48	West to East hot & sunny
05-May-15	287	118	15	19	52	West to East hot & sunny
19-May-15	317	145	18	21	50	East to west hot & sunny
02-Jun-15	297	120	15	20	53	West to east hot & sunny
16-Jun-15	314	129	16	20	45	West to east hot & sunny
02-Jul-15	326	131	15	18	48	East to west hot & sunny
16-Jul-15	303	124	16	19	51	West to east hot & sunny
03-Aug-15	261	111	14	17	48	West to east hot & sunny evening rainfall
17-Aug-15	231	120	13	17	32	West to east hot & sunny evening rainfall
03-Sep-15	190	71	11	14	30	West to east hot & sunny evening rainfall
18-Sep-15	196	92	13	17	35	West to east hot & sunny evening rainfall
05-Oct-15	264	107	13	17	62	West to east hot & sunny
16-Oct-15	332	187	16	19	98	West to east hot & sunny
02-Nov-15	507	243	15	18	123	West to east hot & sunny
16-Nov-15	564	266	13	19	115	West to east hot & sunny
01-Dec-15	290	205	14	17	107	West to east hot & sunny
16-Dec-15	250	162	12	16	48	West to east hot & sunny
04-Jan-16	390	194	14	19	96	East to west sunny
18-Jan-16	166	104	10	14	66	West to east sunny
01-Feb-16	392	208	15	18	65	West to east sunny
16-Feb-16	348	248	16	18	60	West to east sunny
02-Mar-16	387	240	13	17	107	West to east sunny
16-Mar-16	554	263	14	18	103	West to east sunny
Brief Statistic	SPM	PM10	SO2	NOx	PM2.5	
Maximum	564.00	266.00	18.00	21.00	123.00	
Minimum	166.00	71.00	10.00	14.00	30.00	
Mean	321.43	160.09	14.22	17.87	67.04	
95 Percentile	549.30	261.50	16.00	20.00	114.20	
98 Percentile	559.60	264.68	17.12	20.56	119.48	
Standard (Annual)	600	300	120	120	60	

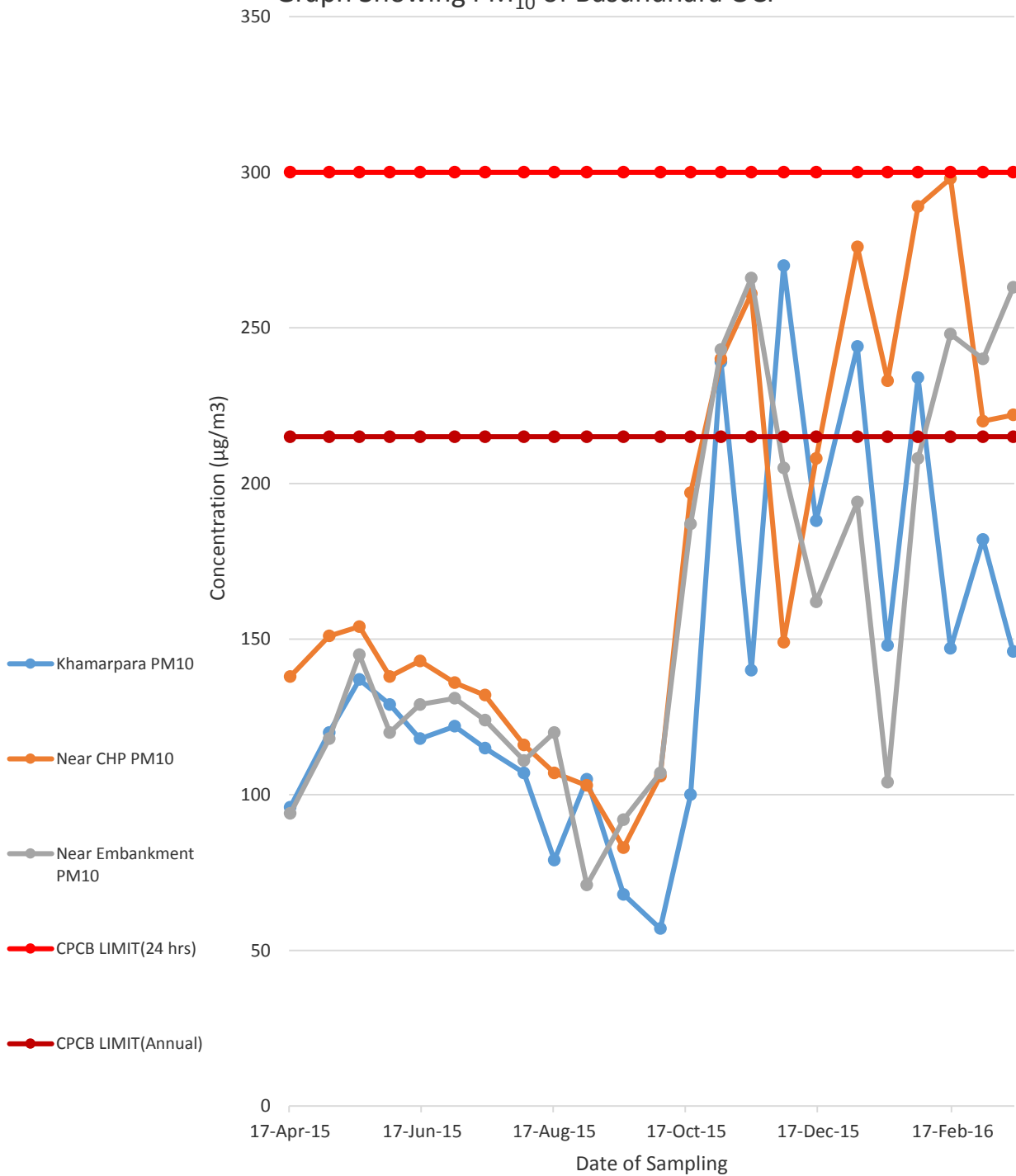
All values are in $\mu\text{g}/\text{m}^3$

Table 52: Analysis of Heavy Metals & NAAQS Parameters

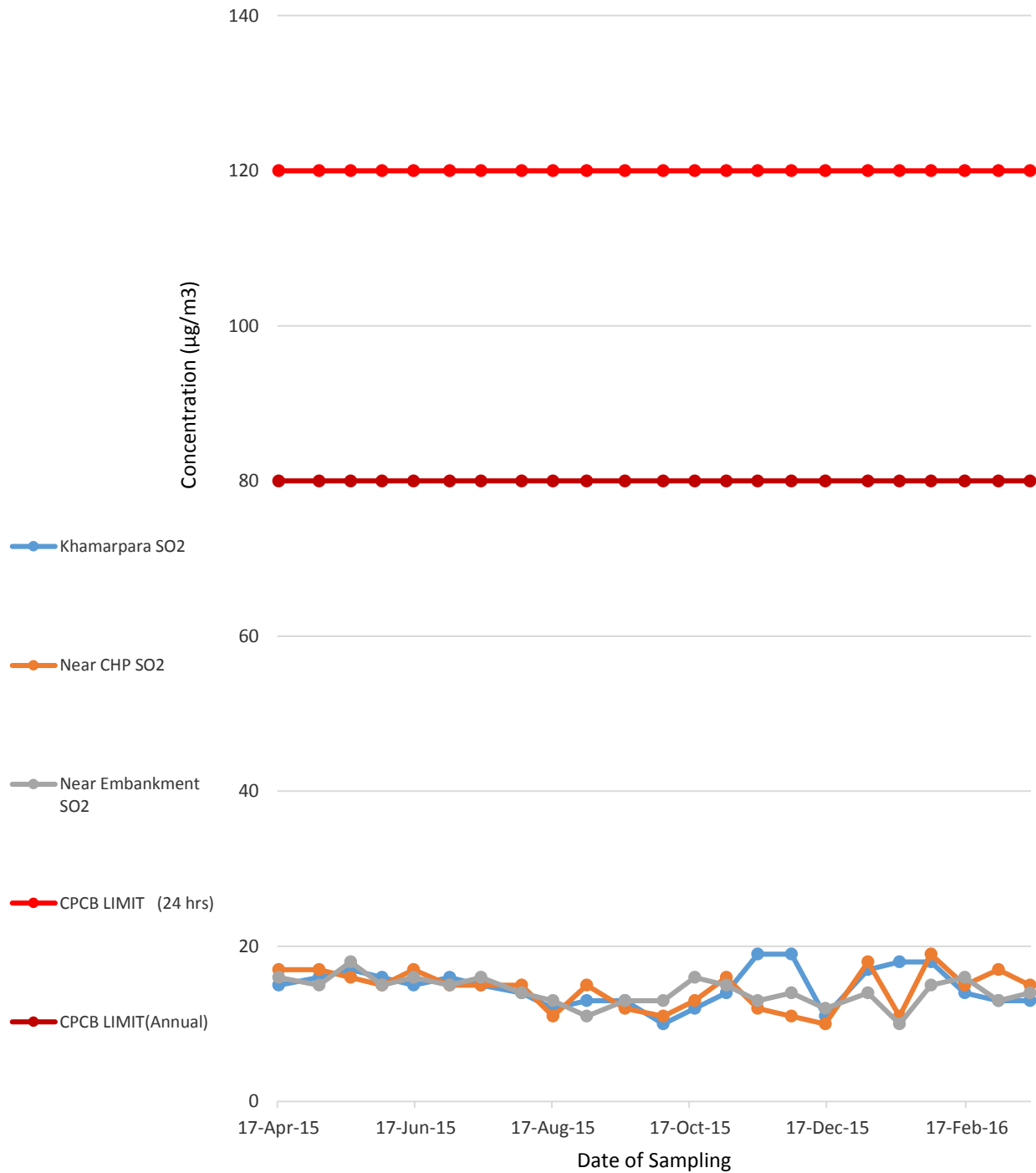
Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
Khamarpara	01-12-15	44.5	6.8	<0.07	<1.0	<1.0	<1.0	<0.01	0.601	<1.0	<1.0	<0.5
Khamarpara	16-12-15	45.8	7.3	<0.07	<1.0	<1.0	<1.0	<0.01	0.69	<1.0	<1.0	<0.5
Khamarpara	04-01-16	48	7.3	<0.07	<1.0	<1.0	<1.0	<0.02	0.672	<1.0	<1.0	<0.5
Khamarpara	18-01-16	50	8.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.624	<1.0	<1.0	<0.5
Khamarpara	01-02-16	42.6	6.4	<0.07	<1.0	<1.0	<1.0	<0.02	0.601	<1.0	<1.0	<0.5
Khamarpara	16-02-16	44.5	7.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.601	<1.0	<1.0	<0.5
Khamarpara	02-03-16	18.6	9.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.863	<1.0	<1.0	<0.5
Khamarpara	16-03-16	20.6	9.8	<0.07	<1.0	<1.0	<1.0	<0.02	0.852	<1.0	<1.0	<0.5
Near CHP	16-03-16	19.8	9.61	<0.07	<1.0	<1.0	<1.0	<0.02	0.823	<1.0	<1.0	<0.5
Near Embankment	16-03-16	20.2	9.54	<0.07	<1.0	<1.0	<1.0	<0.02	0.9	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8 Hours)			



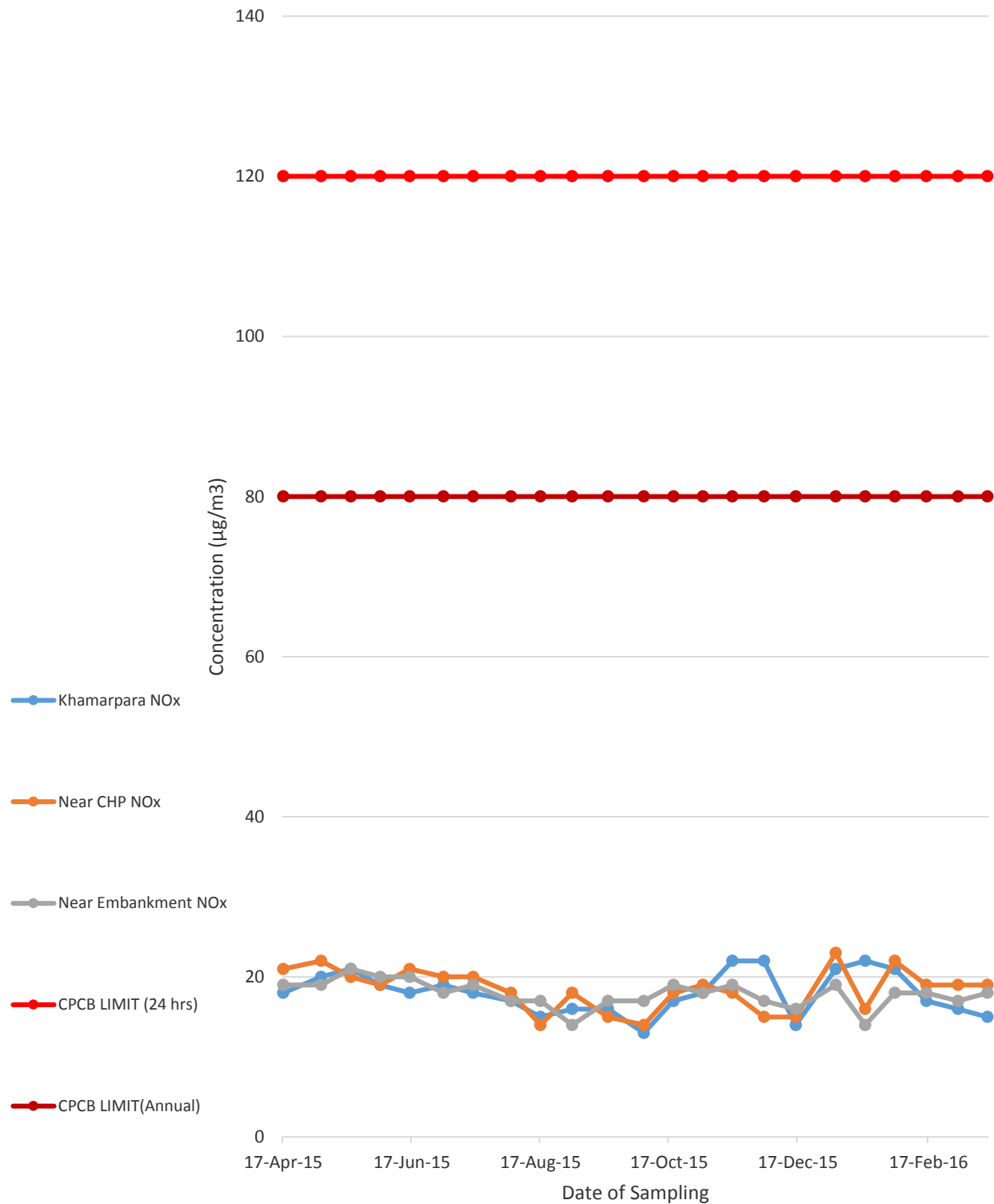
Graph Showing PM₁₀ of Basundhara OCP



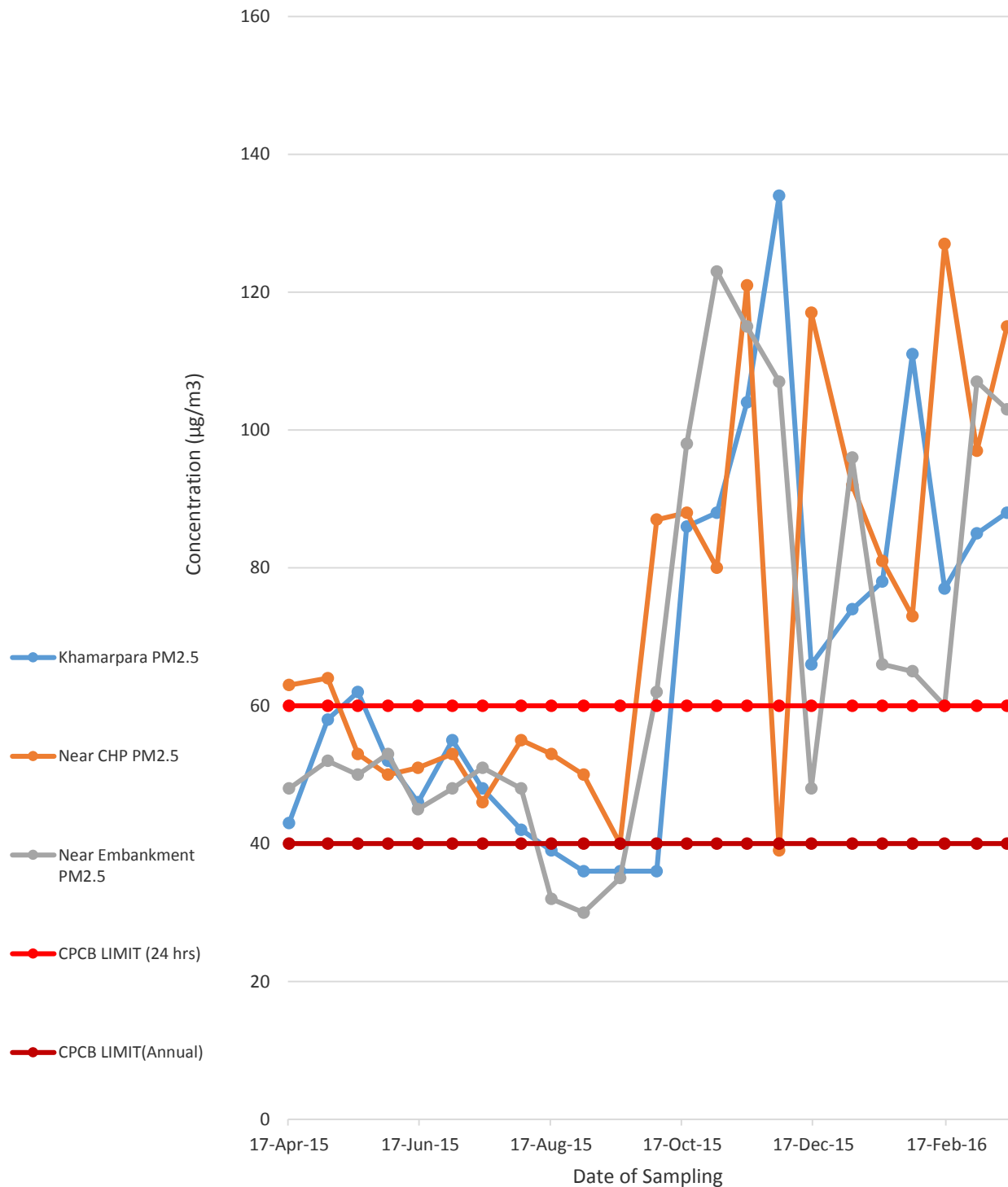
Graph Showing SO₂ of Basundhara OCP



Graph Showing NO_x of Basundhara OCP



Graph Showing PM_{2.5} of Basundhara OCP



Project: Orient
Monitoring Station: HBI Mine

Table 53

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
22-Apr-15	340	147	19	22	63	West to east hot & sunny
11-May-15	360	144	18	21	65	West to east hot & sunny
25-May-15	336	138	17	20	48	East to west hot & sunny
08-Jun-15	260	124	16	19	46	East to west hot & sunny
23-Jun-15	231	127	14	17	25	East to west hot & sunny evening rainfall
09-Jul-15	217	120	14	18	29	west to east sunny
23-Jul-15	204	108	11	14	34	west to east hot & sunny heavy rainfall
10-Aug-15	180	78	12	15	42	West to east hot & sunny evening rainfall
10-Sep-15	210	103	12	16	37	West to east hot & sunny evening rainfall
24-Sep-15	187	83	10	13	47	West to east hot & sunny evening rainfall
12-Oct-15	295	230	15	19	124	West to east hot & sunny
27-Oct-15	252	196	12	17	89	West to east hot & sunny
09-Nov-15	305	171	13	16	92	West to east hot & sunny
24-Nov-15	328	143	15	19	81	West to east hot & sunny
08-Dec-15	284	207	15	18	116	West to east hot & sunny
18-Dec-15	133	111	10	13	46	East to west hot & sunny
11-Jan-16	358	200	15	20	81	West to east sunny
25-Jan-16	256	130	10	14	58	West to east sunny
08-Feb-16	427	220	16	18	73	West to east sunny
23-Feb-16	559	282	15	18	80	West to east sunny
09-Mar-16	363	137	10	13	103	West to east sunny
25-Mar-16	502	234	13	16	79	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	559.00	282.00	19.00	22.00	124.00	
Minimum	133.00	78.00	10.00	13.00	25.00	
Mean	299.41	156.05	13.73	17.09	66.27	
95 Percentile	498.25	233.80	17.95	20.95	115.35	
98 Percentile	535.06	261.84	17.60	21.58	120.64	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: HRC Mine

Table 54

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	266	126	15	18	54	East to west hot & sunny
06-May-15	275	107	14	17	46	West to East hot & sunny
20-May-15	280	119	14	19	46	East to west hot & sunny
04-Jun-15	244	117	13	17	38	East to west hot & sunny
19-Jun-15	199	101	13	16	40	East to west hot & sunny
07-Jul-15	206	103	12	16	38	west to east hot & sunny evening rainfall
21-Jul-15	210	106	13	16	35	west to east hot & sunny heavy rainfall
06-Aug-15	203	94	13	16	29	West to east hot & sunny evening rainfall
08-Sep-15	176	83	10	14	27	West to east hot & sunny evening rainfall
22-Sep-15	196	91	12	16	31	West to east hot & sunny evening rainfall
08-Oct-15	273	162	14	18	83	West to east hot & sunny
21-Oct-15	332	123	15	21	88	West to east hot & sunny
05-Nov-15	353	162	14	17	101	West to east hot & sunny
20-Nov-15	500	218	16	20	132	West to east hot & sunny
04-Dec-15	266	190	13	18	75	West to east hot & sunny
21-Dec-15	293	222	14	18	120	West to east hot & sunny Evening Rainfall
07-Jan-16	403	253	16	21	96	West to east sunny
21-Jan-16	457	257	10	14	117	West to east sunny
04-Feb-16	386	290	12	15	52	West to east sunny
19-Feb-16	400	233	16	19	92	East to west sunny
07-Mar-16	398	241	12	15	129	West to east sunny
21-Mar-16	532	203	14	18	95	West to east sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	532.00	290.00	16.00	21.00	132.00	
Minimum	176.00	83.00	10.00	14.00	27.00	
Mean	311.27	163.68	13.41	17.23	71.09	
95 Percentile	497.85	256.80	16.00	20.95	128.55	
98 Percentile	518.56	276.14	16.00	21.00	130.74	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: Near Adarsh nagar colony

Table 55

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
21-Apr-15	230	109	16	19	48	East to west hot & sunny
07-May-15	198	97	14	18	43	East to west hot & sunny
21-May-15	208	99	15	18	46	East to west hot & sunny
03-Jun-15	148	81	12	15	30	East to west hot & sunny
18-Jun-15	148	71	12	16	29	East to west hot & sunny
06-Jul-15	163	78	12	15	32	East to west hot & sunny evening rainfall
20-Jul-15	160	73	11	14	35	East to west hot & sunny heavy rainfall
05-Aug-15	140	58	11	14	24	East to west hot & sunny evening rainfall
07-Sep-15	143	83	11	14	29	East to west hot & sunny evening rainfall
19-Sep-15	147	77	10	13	27	East to west hot & sunny evening rainfall
07-Oct-15	163	92	11	14	68	East to west hot & sunny
20-Oct-15	120	93	10	13	68	East to west hot & sunny
04-Nov-15	530	267	15	20	123	East to west hot & sunny
19-Nov-15	464	214	17	22	115	East to west hot & sunny
03-Dec-15	165	80	11	14	51	East to west hot & sunny
18-Dec-15	169	100	11	14	77	East to west hot & sunny
06-Jan-16	437	276	16	21	94	East to west cloudy & sunny
20-Jan-16	418	245	11	15	63	East to west sunny
03-Feb-16	311	147	12	15	79	East to west sunny
18-Feb-16	432	232	13	15	117	East to west sunny
04-Mar-16	270	101	13	15	83	East to west sunny
18-Mar-16	204	136	10	13	69	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	530.00	276.00	17.00	22.00	123.00	
Minimum	120.00	58.00	10.00	13.00	24.00	
Mean	244.00	127.68	12.45	15.77	61.36	
95 Percentile	462.65	265.90	16.00	20.95	116.90	
98 Percentile	502.28	272.22	16.58	21.58	120.48	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: Orient Mine No-2

Table 56

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	268	124	15	20	53	East to west hot & sunny
06-May-15	251	120	14	18	50	East to west hot & sunny
20-May-15	270	128	15	18	46	East to west hot & sunny
03-Jun-15	220	115	14	17	45	East to west hot & sunny
18-Jun-15	293	130	15	19	31	East to west hot & sunny
06-Jul-15	241	108	14	17	33	East to west hot & sunny evening rainfall
20-Jul-15	230	98	14	16	35	East to west hot & sunny heavy rainfall
05-Aug-15	210	97	13	16	28	East to west hot & sunny evening rainfall
07-Sep-15	216	106	13	17	36	East to west hot & sunny evening rainfall
19-Sep-15	193	84	12	15	30	East to west hot & sunny evening rainfall
07-Oct-15	275	155	15	19	72	East to west hot & sunny
20-Oct-15	311	156	14	20	77	East to west hot & sunny
04-Nov-15	220	102	11	14	70	East to west hot & sunny
19-Nov-15	340	150	11	17	90	East to west hot & sunny
03-Dec-15	281	132	12	15	105	East to west hot & sunny
18-Dec-15	318	223	16	19	43	East to west hot & sunny
06-Jan-16	424	197	15	20	82	East to west cloudy & sunny
20-Jan-16	212	104	12	15	54	East to west sunny
03-Feb-16	332	172	14	17	81	East to west sunny
18-Feb-16	371	232	16	19	85	East to west sunny
04-Mar-16	530	215	16	19	143	East to west sunny
18-Mar-16	421	203	10	13	87	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	530.00	232.00	16.00	20.00	143.00	
Minimum	193.00	84.00	10.00	13.00	28.00	
Mean	292.14	143.23	13.68	17.27	62.55	
95 Percentile	423.85	222.60	16.00	20.00	104.25	
98 Percentile	485.48	228.22	16.00	20.00	127.04	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: Orient Mine No-3

Table 57

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	289	133	16	21	55	East to west hot & sunny
06-May-15	294	132	15	19	56	East to west hot & sunny
20-May-15	283	127	16	20	62	East to west hot & sunny
03-Jun-15	245	130	15	18	51	East to west hot & sunny
18-Jun-15	249	121	14	17	36	East to west hot & sunny
06-Jul-15	236	98	12	15	35	East to west hot & sunny evening rainfall
20-Jul-15	218	93	11	16	32	East to west hot & sunny heavy rainfall
05-Aug-15	217	86	10	14	32	East to west hot & sunny evening rainfall
07-Sep-15	220	96	12	16	38	East to west hot & sunny evening rainfall
19-Sep-15	201	89	13	17	31	East to west hot & sunny evening rainfall
07-Oct-15	180	120	10	15	61	East to west hot & sunny
20-Oct-15	143	60	10	13	53	East to west hot & sunny
04-Nov-15	320	142	12	15	74	East to west hot & sunny
19-Nov-15	463	153	12	17	92	East to west hot & sunny
03-Dec-15	172	116	10	14	98	East to west hot & sunny
18-Dec-15	327	205	13	17	115	East to west hot & sunny
06-Jan-16	492	228	14	19	79	East to west cloudy & sunny
20-Jan-16	573	206	13	17	57	East to west sunny.
03-Feb-16	316	213	12	15	66	East to west sunny.
18-Feb-16	418	225	15	19	77	East to west sunny.
04-Mar-16	508	291	15	18	112	East to west sunny.
18-Mar-16	428	280	14	16	72	East to west sunny.
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	573.00	291.00	16.00	21.00	115.00	
Minimum	143.00	60.00	10.00	13.00	31.00	
Mean	308.73	152.00	12.91	16.73	62.91	
95 Percentile	507.20	277.40	15.95	19.95	111.30	
98 Percentile	545.70	286.38	16.00	20.58	113.74	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: Orient Mine No-4

Table 58

Date of Sampling	SPM	PM ₁₀	SO ₂	NO _x	PM _{2.5}	Remarks
20-Apr-15	341	132	16	19	62	East to west hot & sunny
06-May-15	320	118	14	18	52	East to west hot & sunny
20-May-15	307	122	15	18	52	East to west hot & sunny
03-Jun-15	251	113	14	18	47	East to west hot & sunny
18-Jun-15	220	106	13	18	33	East to west hot & sunny
06-Jul-15	218	101	13	16	38	East to west hot & sunny evening rainfall
20-Jul-15	203	100	12	15	36	East to west hot & sunny heavy rainfall
05-Aug-15	210	115	13	17	43	East to west hot & sunny evening rainfall
04-Sep-15	240	124	13	18	46	West to east hot & sunny evening rainfall
19-Sep-15	204	84	11	15	37	East to west hot & sunny evening rainfall
07-Oct-15	190	157	11	14	77	East to west hot & sunny
20-Oct-15	310	166	14	17	80	East to west hot & sunny
04-Nov-15	280	103	11	15	59	East to west hot & sunny
19-Nov-15	310	120	12	17	67	East to west hot & sunny
03-Dec-15	367	95	16	19	60	East to west hot & sunny
18-Dec-15	426	194	18	21	52	East to west hot & sunny
06-Jan-16	575	257	18	22	71	East to west cloudy & sunny
20-Jan-16	395	243	11	15	96	East to west sunny
03-Feb-16	259	139	11	14	59	East to west sunny
18-Feb-16	336	209	14	18	73	East to west sunny
04-Mar-16	564	266	14	18	89	East to west sunny
18-Mar-16	389	172	15	18	91	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NO_x	PM_{2.5}	
Maximum	575.00	266.00	18.00	22.00	96.00	
Minimum	190.00	84.00	11.00	14.00	33.00	
Mean	314.32	147.09	13.59	17.27	60.00	
95 Percentile	557.10	256.30	17.90	20.90	90.90	
98 Percentile	570.38	262.22	18.00	21.58	93.90	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

Project: Orient
Monitoring Station: Rampur colony

Table 59

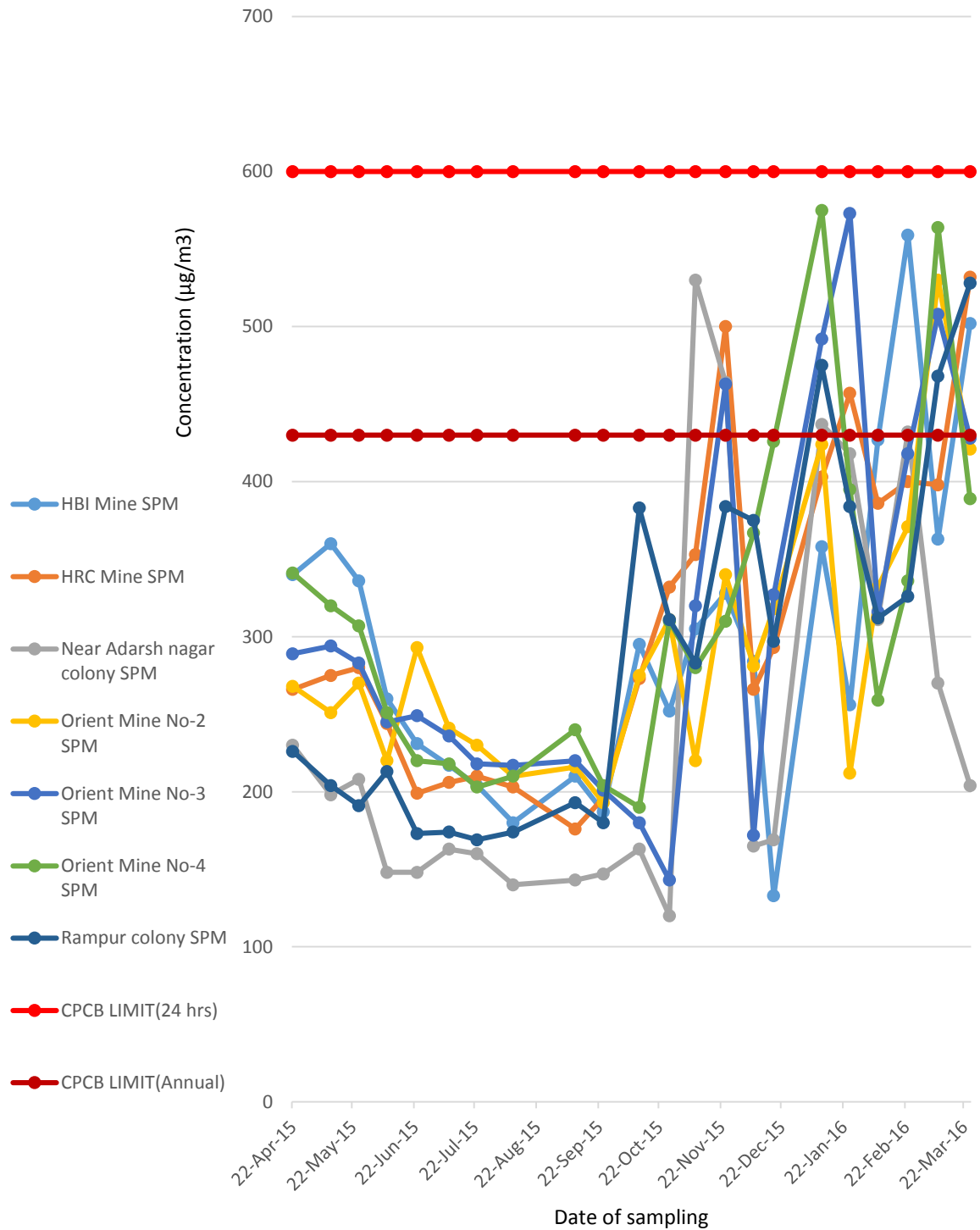
Date of Sampling	SPM	PM ₁₀	SO ₂	NOx	PM _{2.5}	Remarks
22-Apr-15	226	108	14	17	47	West to east hot & sunny
08-May-15	204	98	13	16	42	East to west hot & sunny
22-May-15	191	89	14	17	40	East to west hot & sunny
05-Jun-15	213	95	12	15	34	East to west hot & sunny
22-Jun-15	173	79	12	15	25	East to west hot & sunny evening rainfall
08-Jul-15	174	74	13	16	30	East to west sunny
22-Jul-15	169	68	11	14	38	East to west hot & sunny heavy rainfall
07-Aug-15	174	75	12	16	25	East to west hot & sunny evening rainfall
09-Sep-15	193	74	12	16	31	East to west hot & sunny evening rainfall
23-Sep-15	180	66	11	14	44	East to west hot & sunny evening rainfall
09-Oct-15	383	240	17	20	145	East to west hot & sunny
26-Oct-15	311	230	14	18	111	East to west hot & sunny
06-Nov-15	283	126	12	15	99	East to west hot & sunny
23-Nov-15	384	162	14	19	126	East to west hot & sunny
07-Dec-15	375	168	10	15	103	East to west hot & sunny
22-Dec-15	297	164	13	17	80	West to east hot & sunny Evening Rainfall
08-Jan-16	475	263	14	18	94	East to west cloudy
22-Jan-16	384	207	15	19	44	East to west sunny
05-Feb-16	312	204	16	19	59	East to west sunny
22-Feb-16	326	166	12	15	53	East to west sunny
08-Mar-16	468	280	11	14	128	East to west sunny
22-Mar-16	528	229	13	15	101	East to west sunny
Brief Statistic	SPM	PM₁₀	SO₂	NOx	PM_{2.5}	
Maximum	528.00	280.00	17.00	20.00	145.00	
Minimum	169.00	66.00	10.00	14.00	25.00	
Mean	291.95	148.41	12.95	16.36	68.14	
95 Percentile	474.65	261.85	15.95	19.00	127.90	
98 Percentile	505.74	272.86	16.58	19.58	137.86	
Standard (24 Hrs)	600	300	120	120	60	
Standard (Annual)	430	215	80	80	40	

All values are in µg/m³

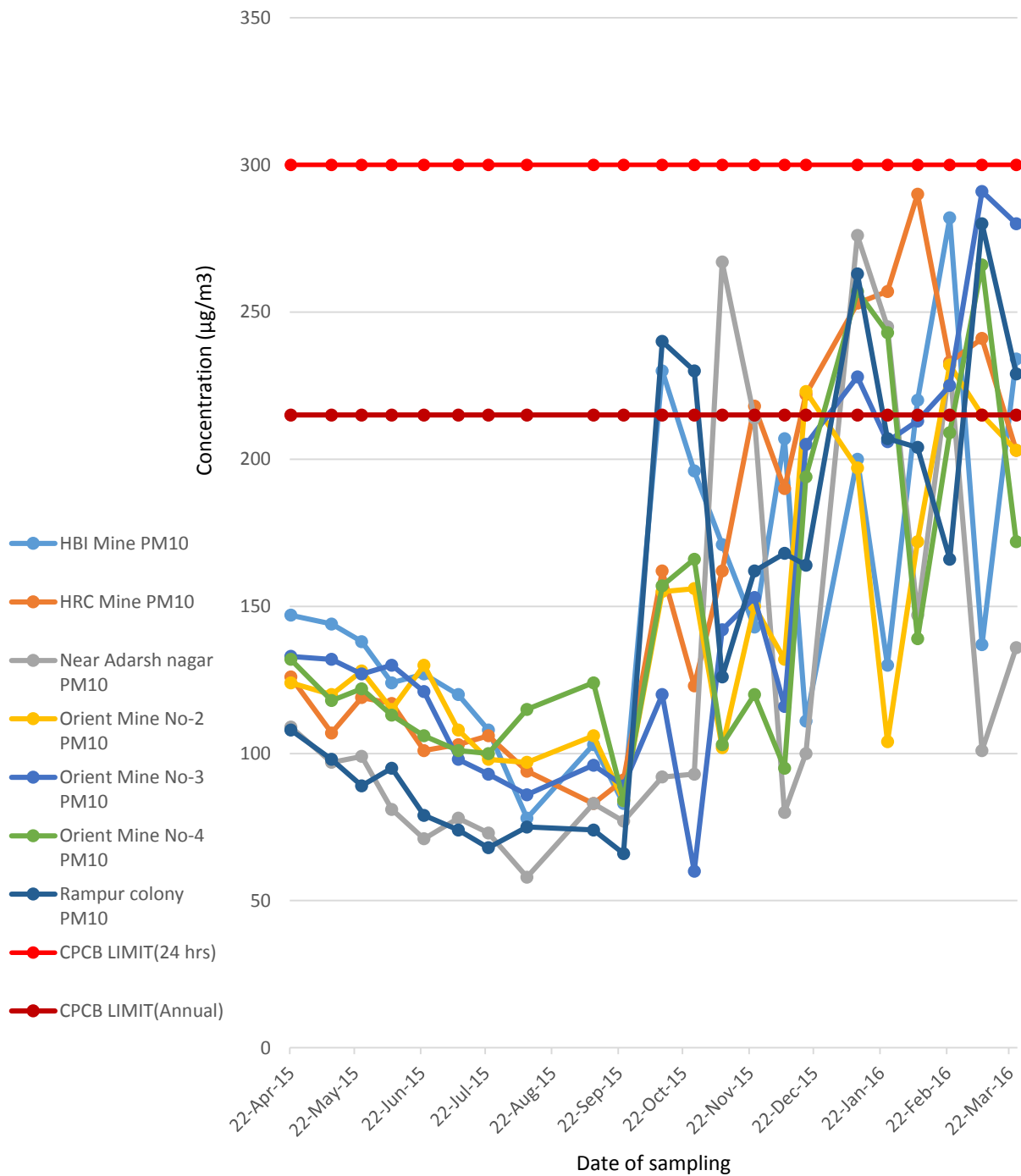
Table 60: Analysis of Heavy Metals & NAAQS Parameters

Name of Location	Date of Sampling	Ammonia (NH ₃)	Ozone (O ₃)	B(a)P	Lead (Pb)	Arsenic (As)	Nickle (Ni)	Benzene (C ₆ H ₆)	Carbon monoxide (CO)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
Units		(µg/m ³)	(µg/m ³)	(ng/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(mg/m ³)	(ng/m ³)	(ng/m ³)	(ng/m ³)
Orient mine no-2	18-03-16	21.6	9.83	<0.07	<1.0	<1.0	<1.0	<0.02	0.798	<1.0	<1.0	<0.5
Orient mine no-3	18-03-16	20.5	10.2	<0.07	<1.0	<1.0	<1.0	<0.02	0.856	<1.0	<1.0	<0.5
Orient mine no-4	18-03-16	19.8	9.68	<0.07	<1.0	<1.0	<1.0	<0.02	0.962	<1.0	<1.0	<0.5
HBI mine	25-03-16	21.3	10.5	<0.07	<1.0	<1.0	<1.0	<0.02	0.927	<1.0	<1.0	<0.5
HRC mine	21-03-16	21.5	8.56	<0.07	<1.0	<1.0	<1.0	<0.02	0.855	<1.0	<1.0	<0.5
Rampur colony	22-03-16	20.6	8.96	<0.07	<1.0	<1.0	<1.0	<0.02	0.796	<1.0	<1.0	<0.5
Standard		400 (24hours)	180 (1 hour)	1.0 (Annual)	1.0 (24hours)	6.0 (Annual)	20 (Annual)	5.0 (Annual)	2.0 (8Hours)			

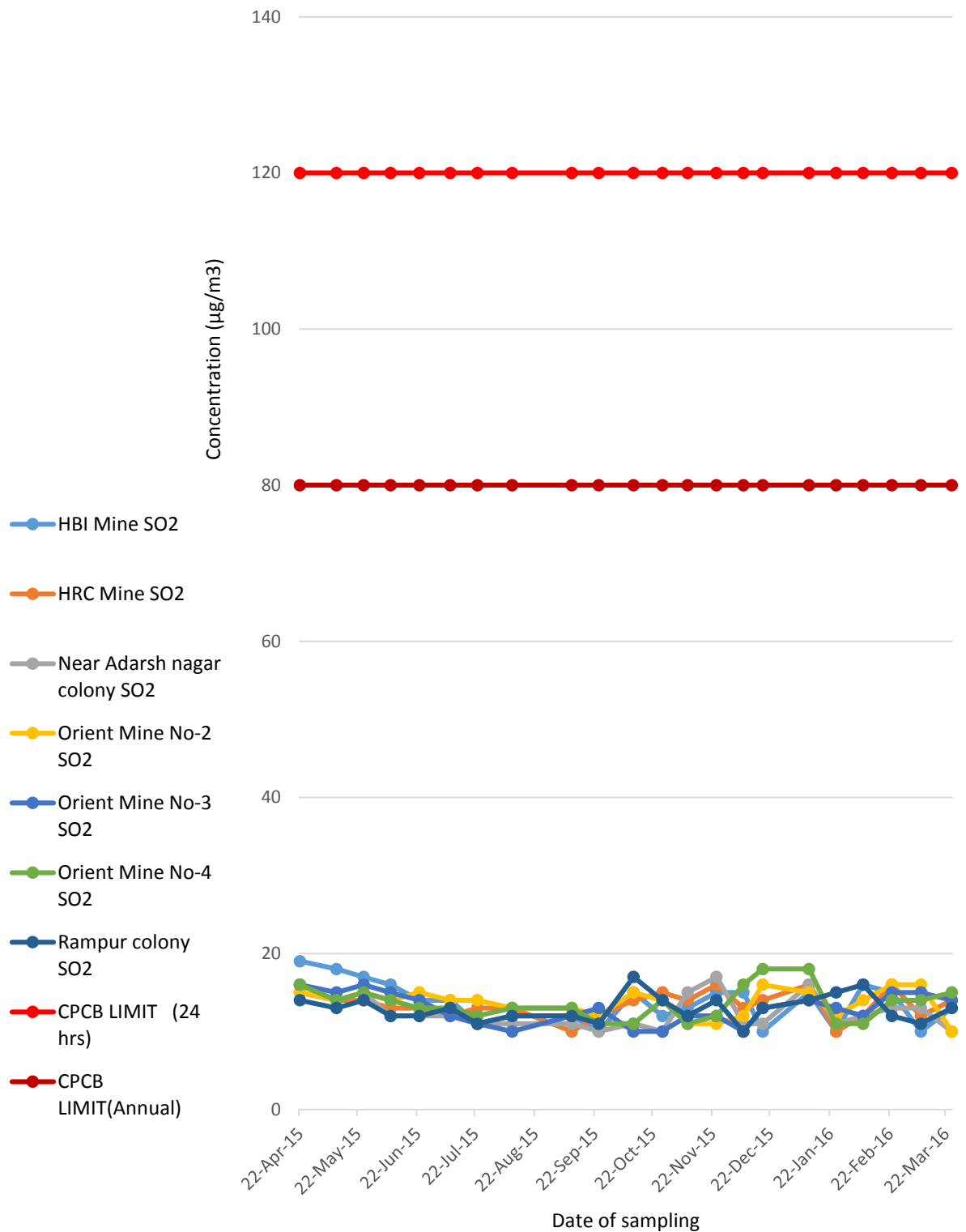
Graph showing SPM of Orient Area



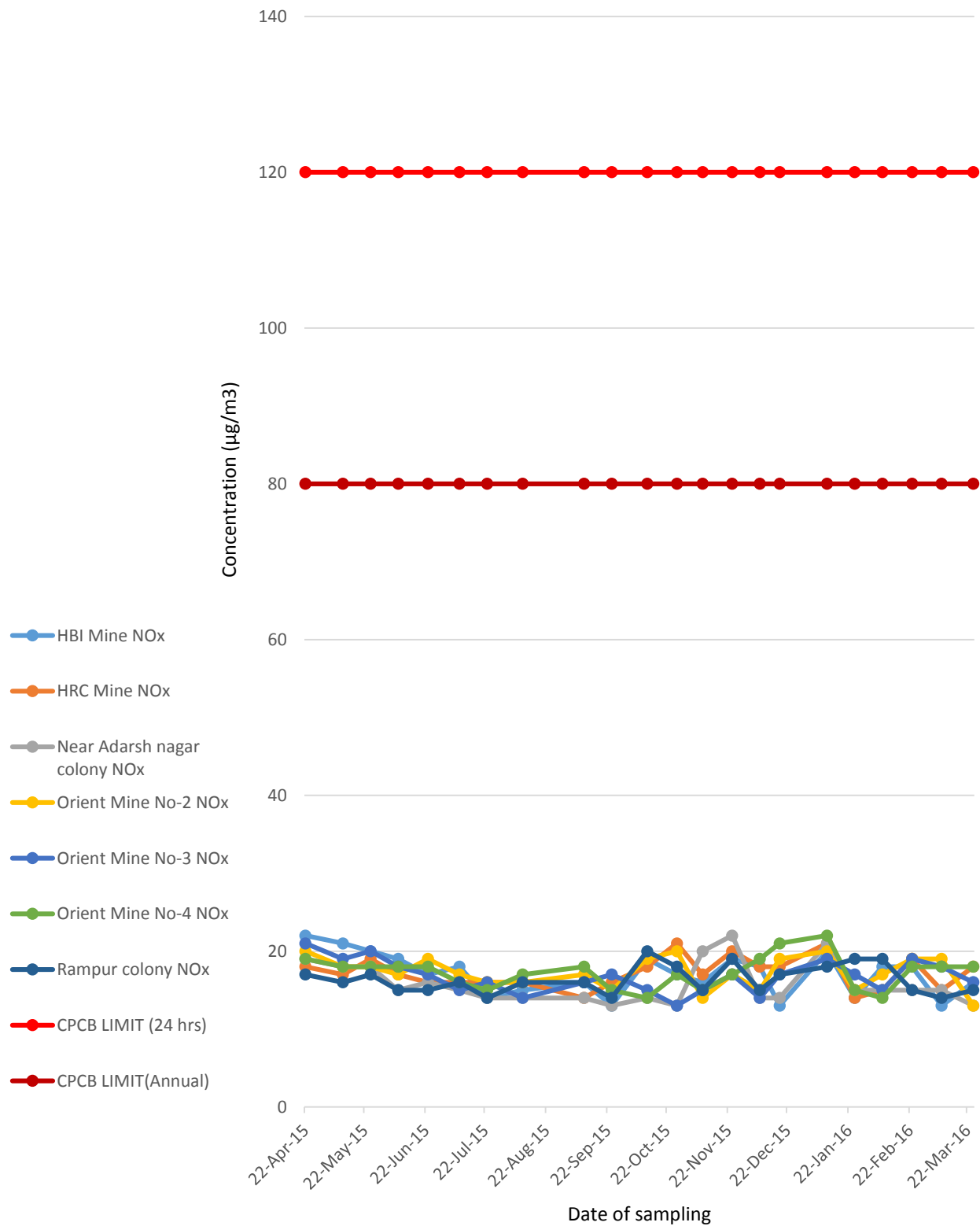
Graph showing PM₁₀ of Orient Area



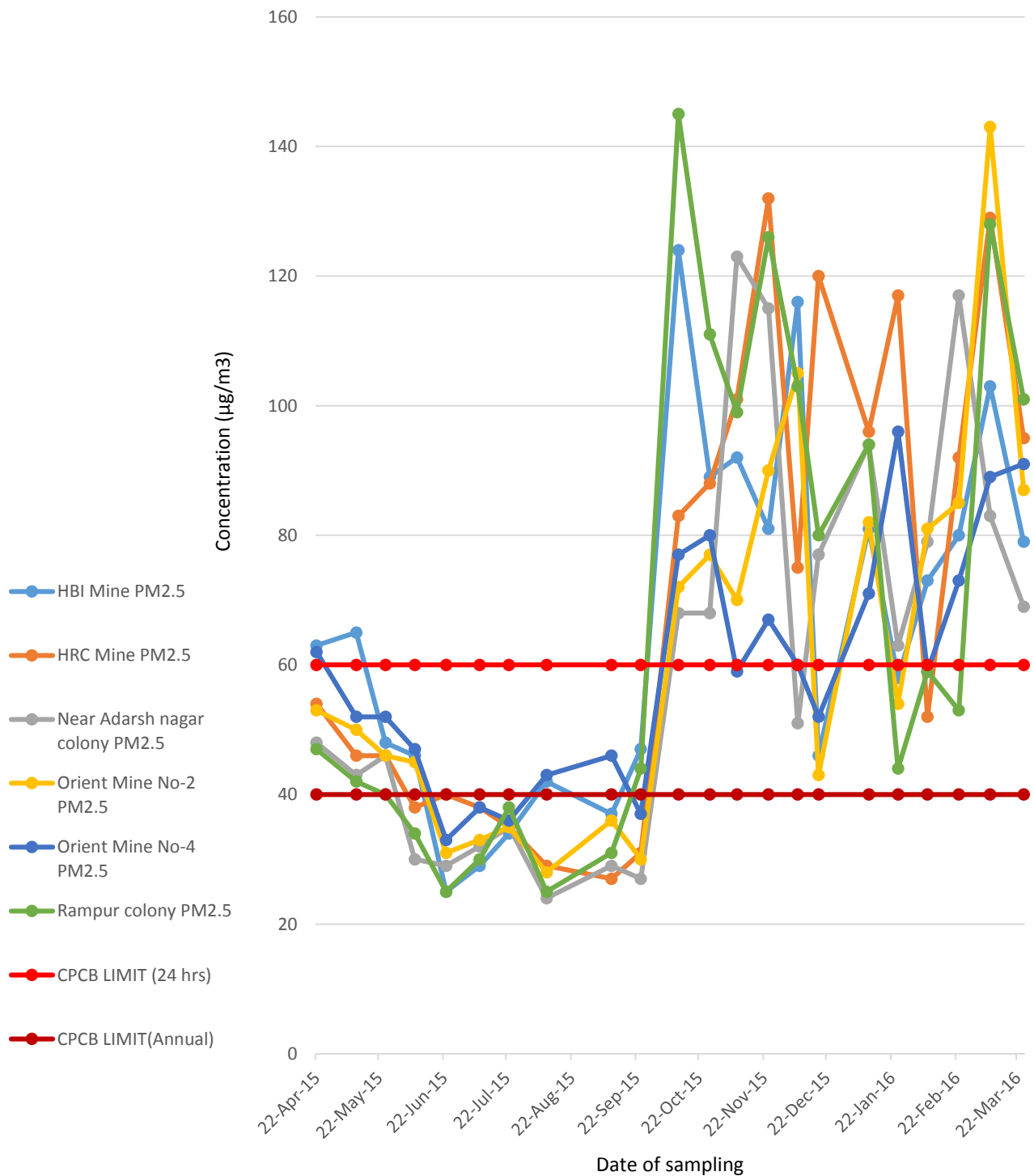
Graph showing SO₂ of Orient Area



Graph showing NO_x of Orient Area



Graph showing PM_{2.5} of Orient Area



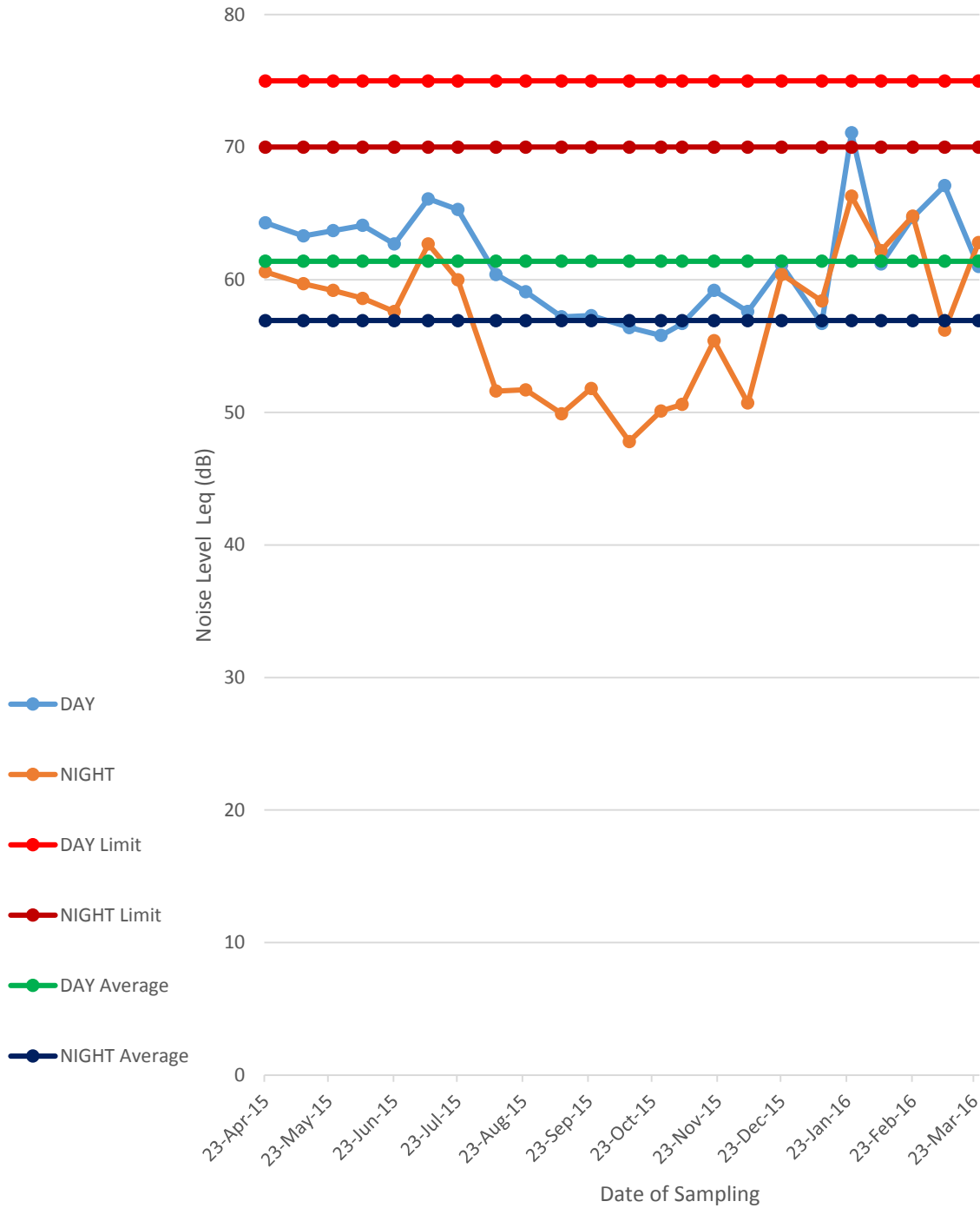
TABLES FOR NOISE LEVEL MONITORING DATA

Project: Samleswari OCP
Monitoring Station: Roof of New Project Office
Table 61

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	64.3	60.6
11-May-15	63.3	59.7
25-May-15	63.7	59.2
08-Jun-15	64.1	58.6
23-Jun-15	62.7	57.6
09-Jul-15	66.1	62.7
23-Jul-15	65.3	60
10-Aug-15	60.4	51.6
24-Aug-15	59.1	51.7
10-Sep-15	57.2	49.9
24-Sep-15	57.3	51.8
12-Oct-15	56.4	47.8
27-Oct-15	55.8	50.1
06-Nov-15	56.7	50.6
21-Nov-15	59.2	55.4
07-Dec-15	57.6	50.7
23-Dec-15	61.1	60.4
11-Jan-16	56.7	58.4
25-Jan-16	71.1	66.3
08-Feb-16	61.2	62.2
23-Feb-16	64.7	64.8
09-Mar-16	67.1	56.2
25-Mar-16	61	62.8
Brief Statistic	DAY	NIGHT
Maximum	71.10	66.30
Minimum	55.80	47.80
Average	61.40	56.92
Noise Standard	75	70

All values are in Leq (dB)

Graph Showing Noise in Roof of New Project Office

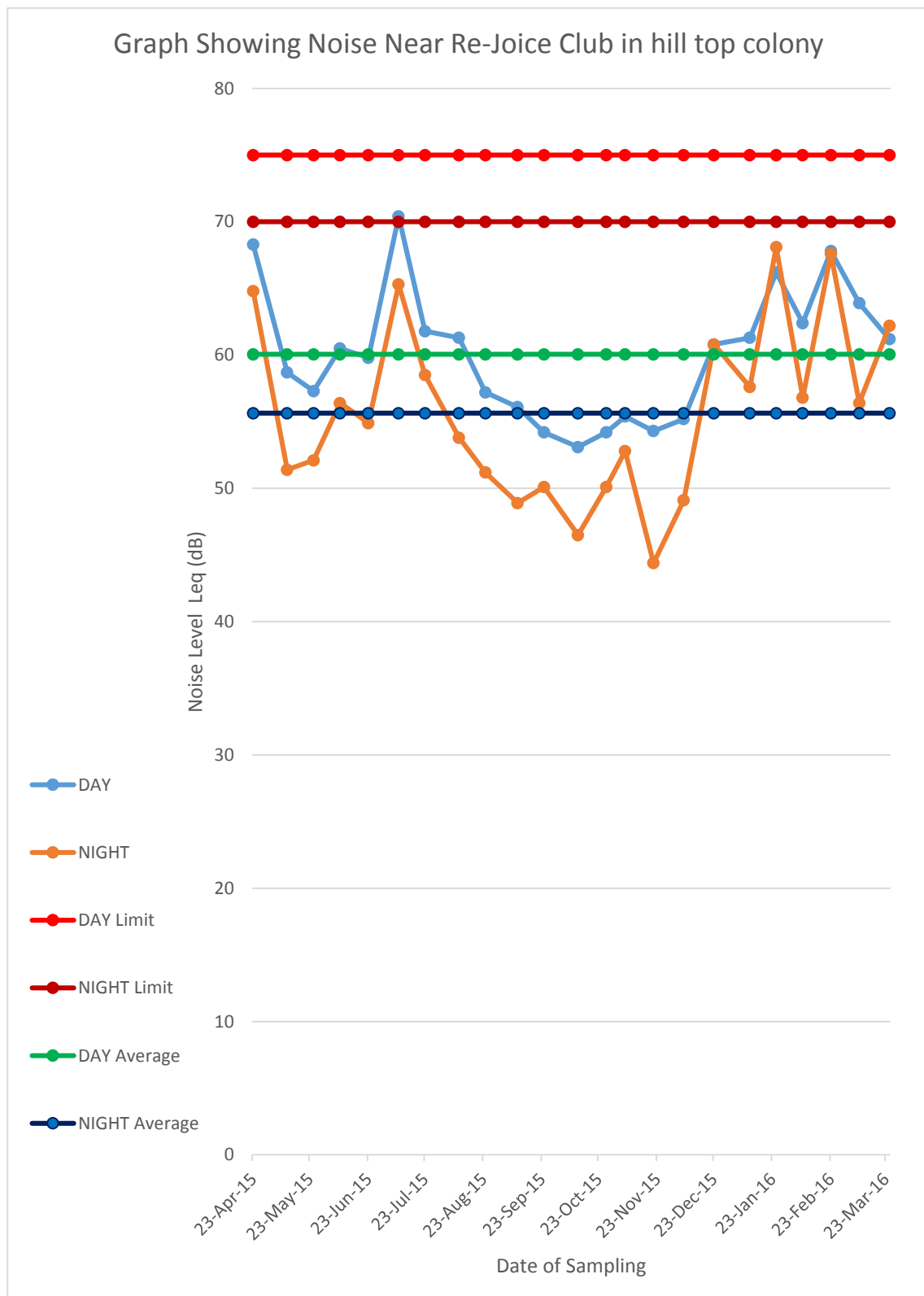


Project: Samleswari OCP
Monitoring Station: Near Re-Joice Club in hill top colony

Table 62

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	68.3	64.8
11-May-15	58.7	51.4
25-May-15	57.3	52.1
08-Jun-15	60.5	56.4
23-Jun-15	59.8	54.9
09-Jul-15	70.4	65.3
23-Jul-15	61.8	58.5
10-Aug-15	61.3	53.8
24-Aug-15	57.2	51.2
10-Sep-15	56.1	48.9
24-Sep-15	54.2	50.1
12-Oct-15	53.1	46.5
27-Oct-15	54.2	50.1
06-Nov-15	55.4	52.8
21-Nov-15	54.3	44.4
07-Dec-15	55.2	49.1
23-Dec-15	60.8	60.8
11-Jan-16	61.3	57.6
25-Jan-16	66.2	68.1
08-Feb-16	62.4	56.8
23-Feb-16	67.8	67.6
09-Mar-16	63.9	56.4
25-Mar-16	61.2	62.2
Brief Statistic	DAY	NIGHT
Maximum	70.40	68.10
Minimum	53.10	44.40
Average	60.06	55.64
Noise Standard	75	70

All values are in Leq (dB)

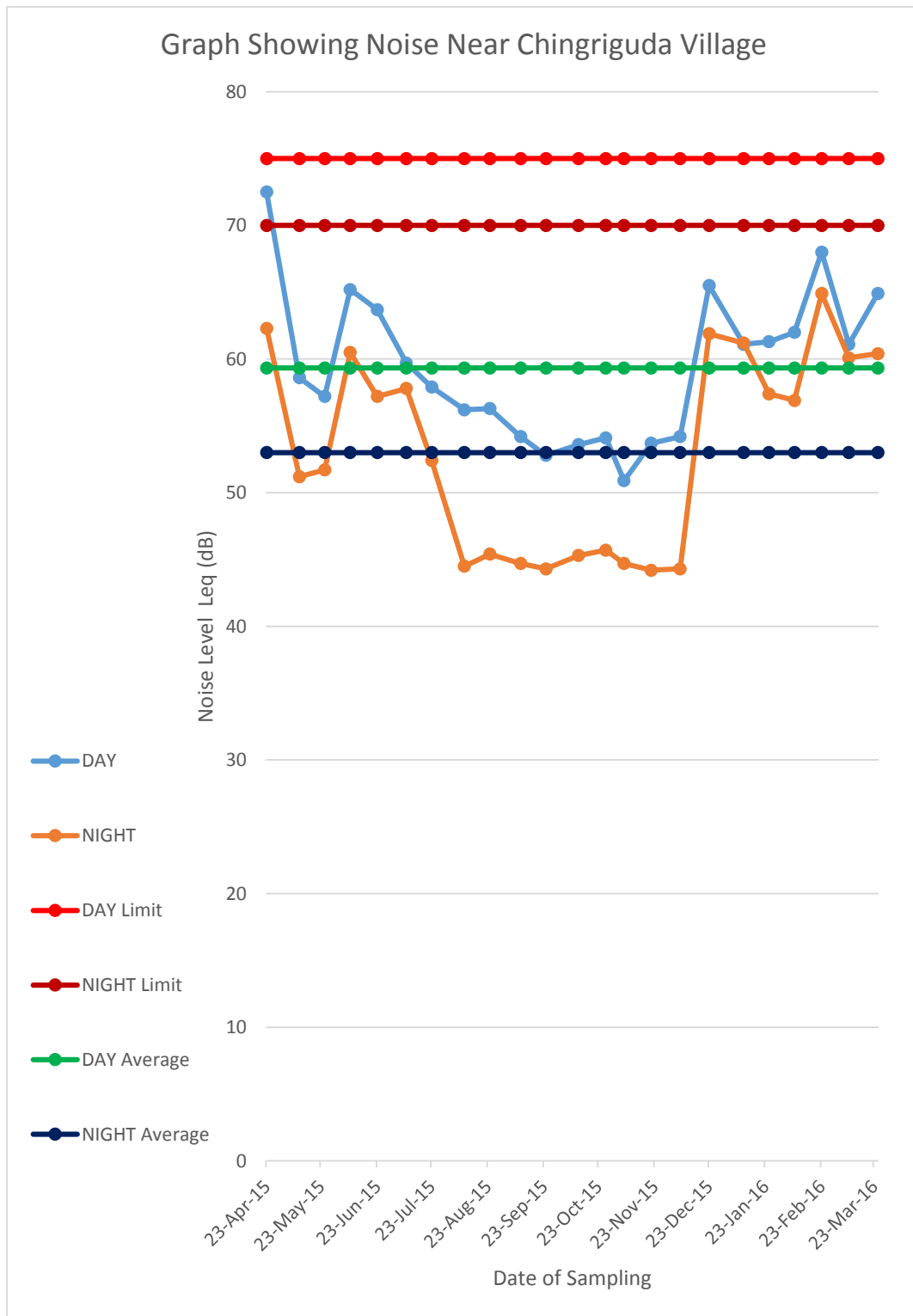


Project: Samleswari OCP
Monitoring Station: Near Chingriguda Village

Table 63

<i>DATE OF SAMPLING</i>	<i>DAY</i>	<i>NIGHT</i>
23-Apr-15	72.5	62.3
11-May-15	58.6	51.2
25-May-15	57.2	51.7
08-Jun-15	65.2	60.5
23-Jun-15	63.7	57.2
09-Jul-15	59.7	57.8
23-Jul-15	57.9	52.4
10-Aug-15	56.2	44.5
24-Aug-15	56.3	45.4
10-Sep-15	54.2	44.7
24-Sep-15	52.8	44.3
12-Oct-15	53.6	45.3
27-Oct-15	54.1	45.7
06-Nov-15	50.9	44.7
21-Nov-15	53.7	44.2
07-Dec-15	54.2	44.3
23-Dec-15	65.5	61.9
11-Jan-16	61.1	61.2
25-Jan-16	61.3	57.4
08-Feb-16	62	56.9
23-Feb-16	68	64.9
09-Mar-16	61.1	60.1
25-Mar-16	64.9	60.4
<i>Brief Statistic</i>	<i>DAY</i>	<i>NIGHT</i>
<i>Maximum</i>	72.50	64.90
<i>Minimum</i>	50.90	44.20
<i>Average</i>	59.33	53.00
<i>Noise Standard</i>	75	70

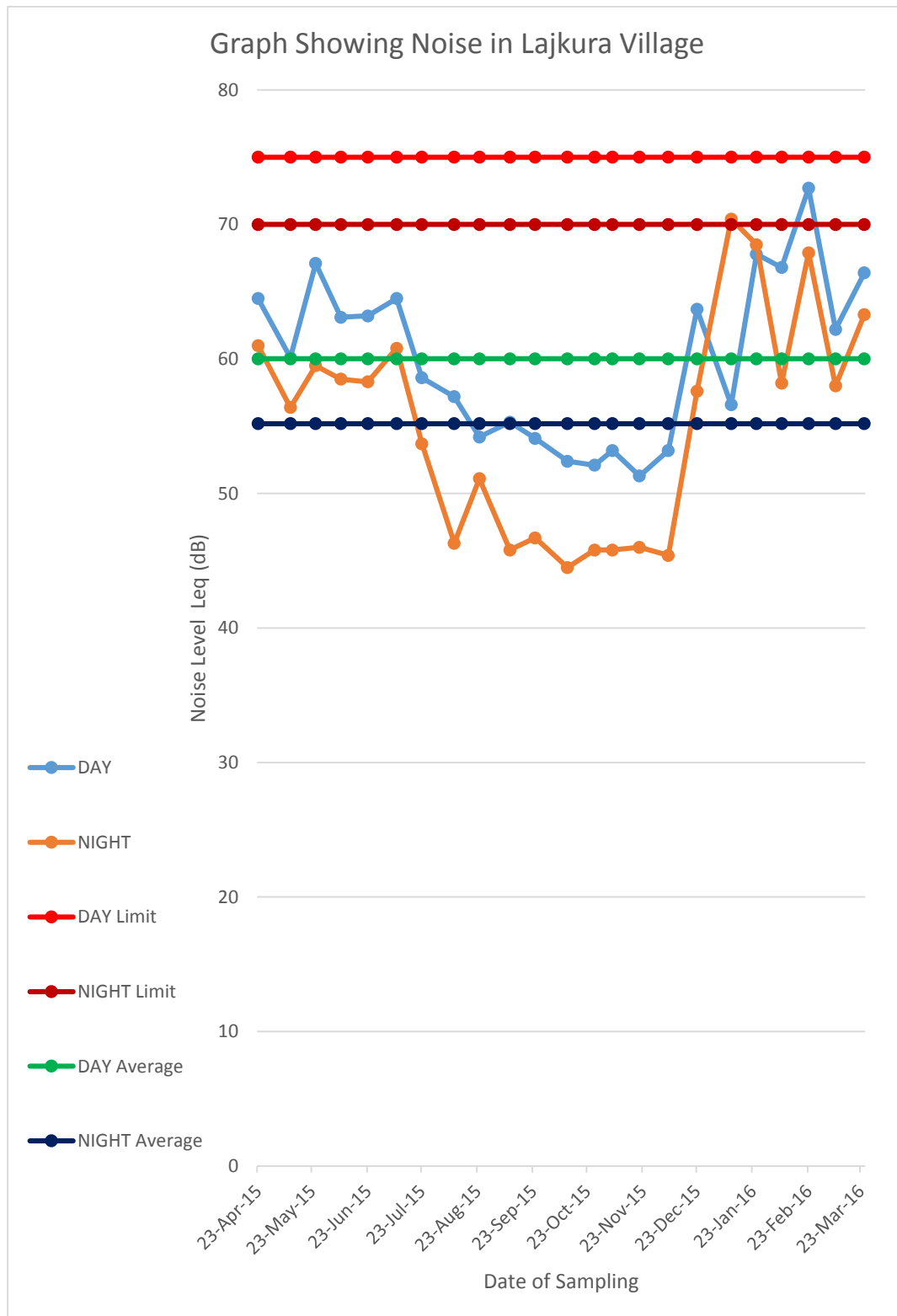
All values are in Leq (dB)



Project: Samleswari OCP
Monitoring Station: Lajkura Village
Table 64

<i>DATE OF SAMPLING</i>	<i>DAY</i>	<i>NIGHT</i>
23-Apr-15	64.5	61
11-May-15	60.1	56.4
25-May-15	67.1	59.5
08-Jun-15	63.1	58.5
23-Jun-15	63.2	58.3
09-Jul-15	64.5	60.8
23-Jul-15	58.6	53.7
10-Aug-15	57.2	46.3
24-Aug-15	54.2	51.1
10-Sep-15	55.3	45.8
24-Sep-15	54.1	46.7
12-Oct-15	52.4	44.5
27-Oct-15	52.1	45.8
06-Nov-15	53.2	45.8
21-Nov-15	51.3	46
07-Dec-15	53.2	45.4
23-Dec-15	63.7	57.6
11-Jan-16	56.6	70.4
25-Jan-16	67.8	68.5
08-Feb-16	66.8	58.2
23-Feb-16	72.7	67.9
09-Mar-16	62.2	58
25-Mar-16	66.4	63.3
<i>Brief Statistic</i>	<i>DAY</i>	<i>NIGHT</i>
<i>Maximum</i>	72.70	70.40
<i>Minimum</i>	51.30	44.50
<i>Average</i>	60.01	55.20
<i>Noise Standard</i>	75	70

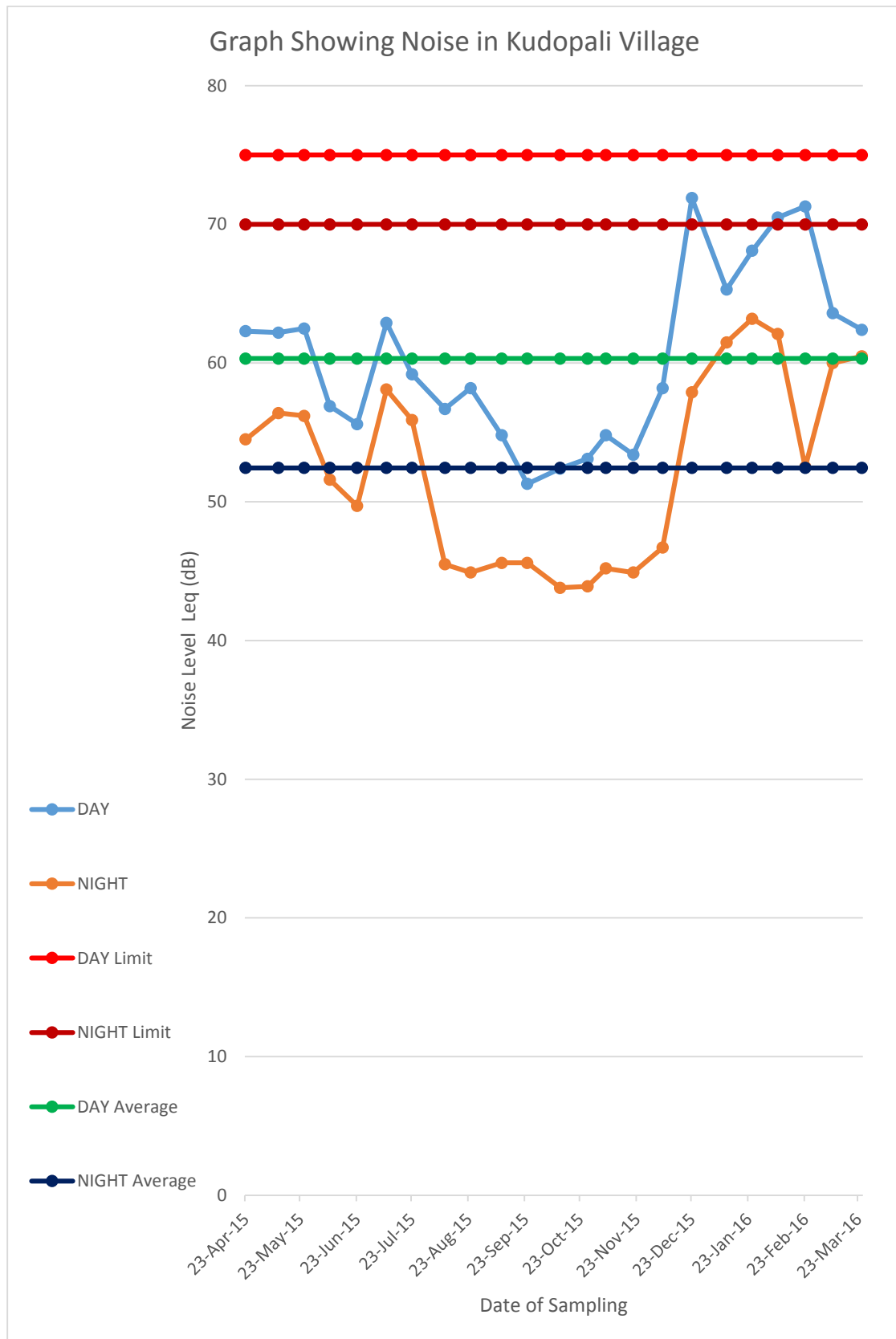
All values are in Leq (dB)



Project: Samleswari OCP
Monitoring Station: Kudopali Village
Table 65

<i>DATE OF SAMPLING</i>	<i>DAY</i>	<i>NIGHT</i>
23-Apr-15	62.3	54.5
11-May-15	62.2	56.4
25-May-15	62.5	56.2
08-Jun-15	56.9	51.6
23-Jun-15	55.6	49.7
09-Jul-15	62.9	58.1
23-Jul-15	59.2	55.9
10-Aug-15	56.7	45.5
24-Aug-15	58.2	44.9
10-Sep-15	54.8	45.6
24-Sep-15	51.3	45.6
12-Oct-15	52.4	43.8
27-Oct-15	53.1	43.9
06-Nov-15	54.8	45.2
21-Nov-15	53.4	44.9
07-Dec-15	58.2	46.7
23-Dec-15	71.9	57.9
11-Jan-16	65.3	
25-Jan-16	68.1	63.2
08-Feb-16	70.5	62.1
23-Feb-16	71.3	52.5
09-Mar-16	63.6	60
25-Mar-16	62.4	60.5
<i>Brief Statistic</i>	<i>DAY</i>	<i>NIGHT</i>
<i>Maximum</i>	<i>71.90</i>	<i>63.20</i>
<i>Minimum</i>	<i>51.30</i>	<i>43.80</i>
<i>Average</i>	<i>60.33</i>	<i>52.44</i>
<i>Noise Standard</i>	<i>75</i>	<i>70</i>

All values are in Leq (dB)

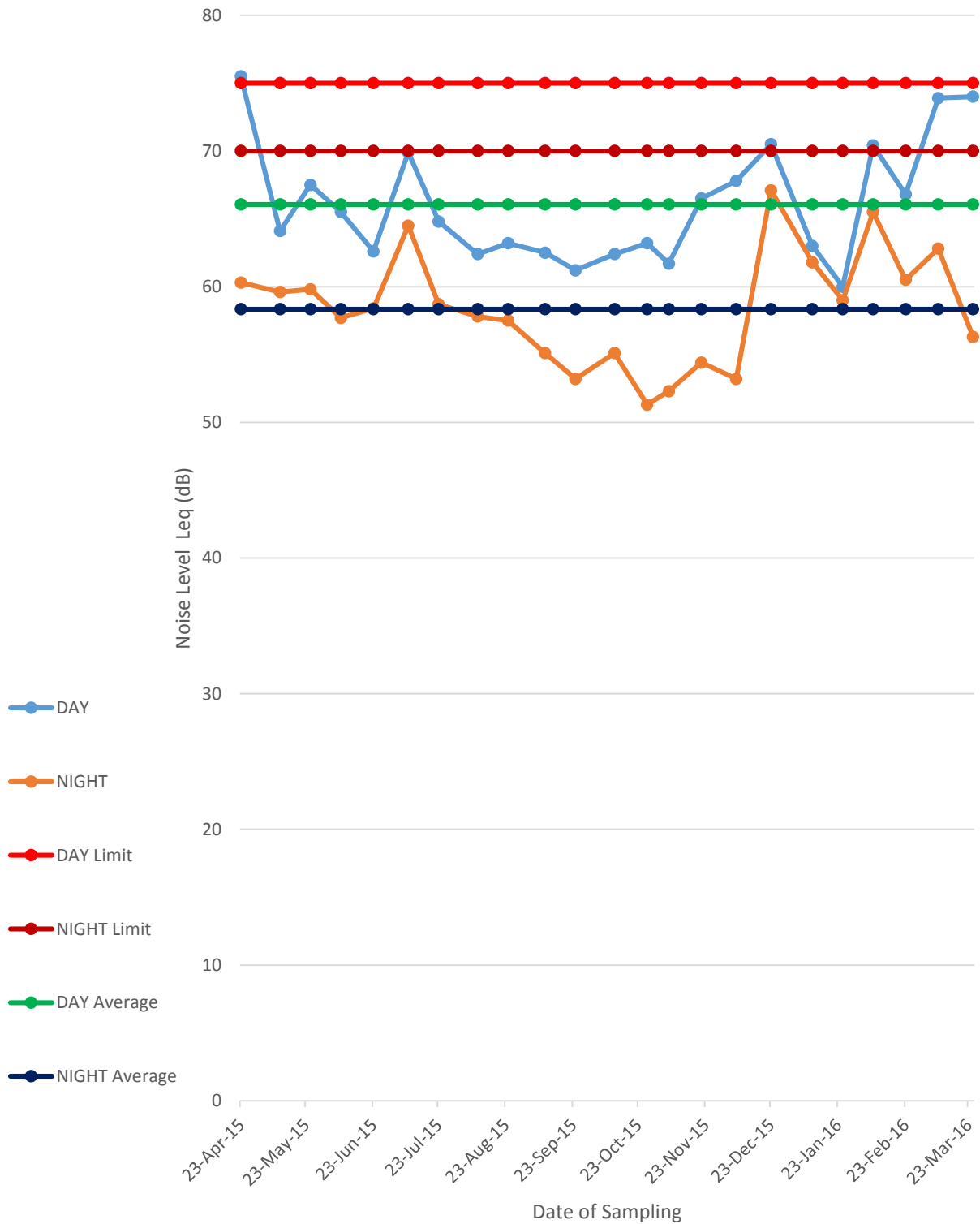


Project: Samleswari OCP
Monitoring Station: Inside sainik Mining Camp Premises
Table 66

DATE OF SAMPLING	DAY	NIGHT
23-Apr-15	75.5	60.3
11-May-15	64.1	59.6
25-May-15	67.5	59.8
08-Jun-15	65.5	57.7
23-Jun-15	62.6	58.4
09-Jul-15	69.9	64.5
23-Jul-15	64.8	58.7
10-Aug-15	62.4	57.8
24-Aug-15	63.2	57.5
10-Sep-15	62.5	55.1
24-Sep-15	61.2	53.2
12-Oct-15	62.4	55.1
27-Oct-15	63.2	51.3
06-Nov-15	61.7	52.3
21-Nov-15	66.5	54.4
07-Dec-15	67.8	53.2
23-Dec-15	70.5	67.1
11-Jan-16	63	61.8
25-Jan-16	60	59
08-Feb-16	70.4	65.5
23-Feb-16	66.8	60.5
09-Mar-16	73.9	62.8
25-Mar-16	74	56.3
Brief Statistic	DAY	NIGHT
Maximum	75.50	67.10
Minimum	60.00	51.30
Average	66.06	58.34
Noise Standard	75	70

All values are in Leq (dB)

Graph Showing Noise Inside sainik Mining Camp Premises



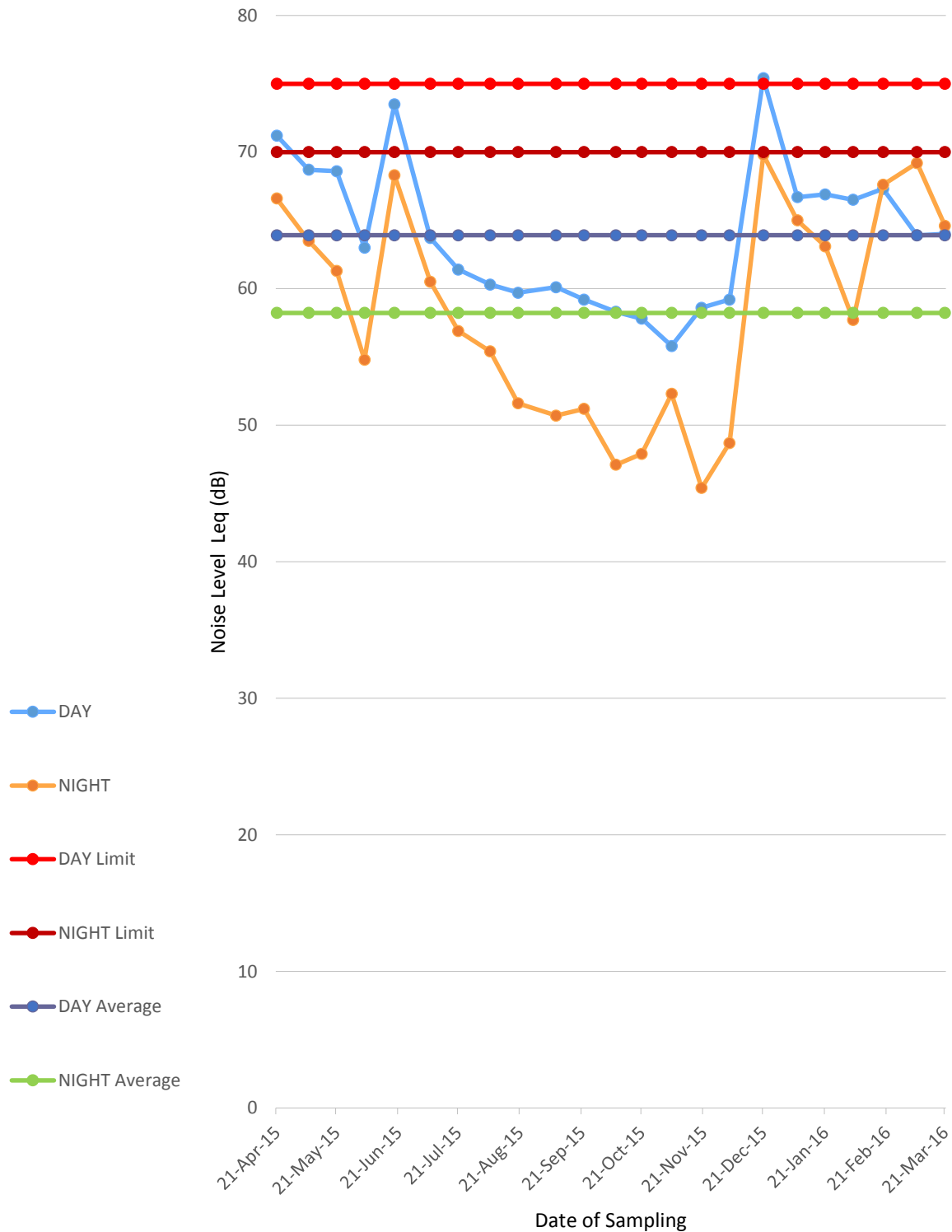
Project: Lajkura ocp
Monitoring Station: Near Project Office

Table 67

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	71.2	66.6
07-May-15	68.7	63.5
21-May-15	68.6	61.3
04-Jun-15	63	54.8
19-Jun-15	73.5	68.3
07-Jul-15	63.7	60.5
21-Jul-15	61.4	56.9
06-Aug-15	60.3	55.4
20-Aug-15	59.7	51.6
08-Sep-15	60.1	50.7
22-Sep-15	59.2	51.2
08-Oct-15	58.3	47.1
21-Oct-15	57.8	47.9
05-Nov-15	55.8	52.3
20-Nov-15	58.6	45.4
04-Dec-15	59.2	48.7
21-Dec-15	75.4	69.8
07-Jan-16	66.7	65
21-Jan-16	66.9	63.1
04-Feb-16	66.5	57.7
19-Feb-16	67.3	67.6
07-Mar-16	63.9	69.2
21-Mar-16	64	64.6
Brief Statistic	DAY	NIGHT
Maximum	75.40	69.80
Minimum	55.80	45.40
Average	63.90	58.23
Noise Standard	75	70

All values are in Leq (dB)

Graph Showing Noise in Near Project Office

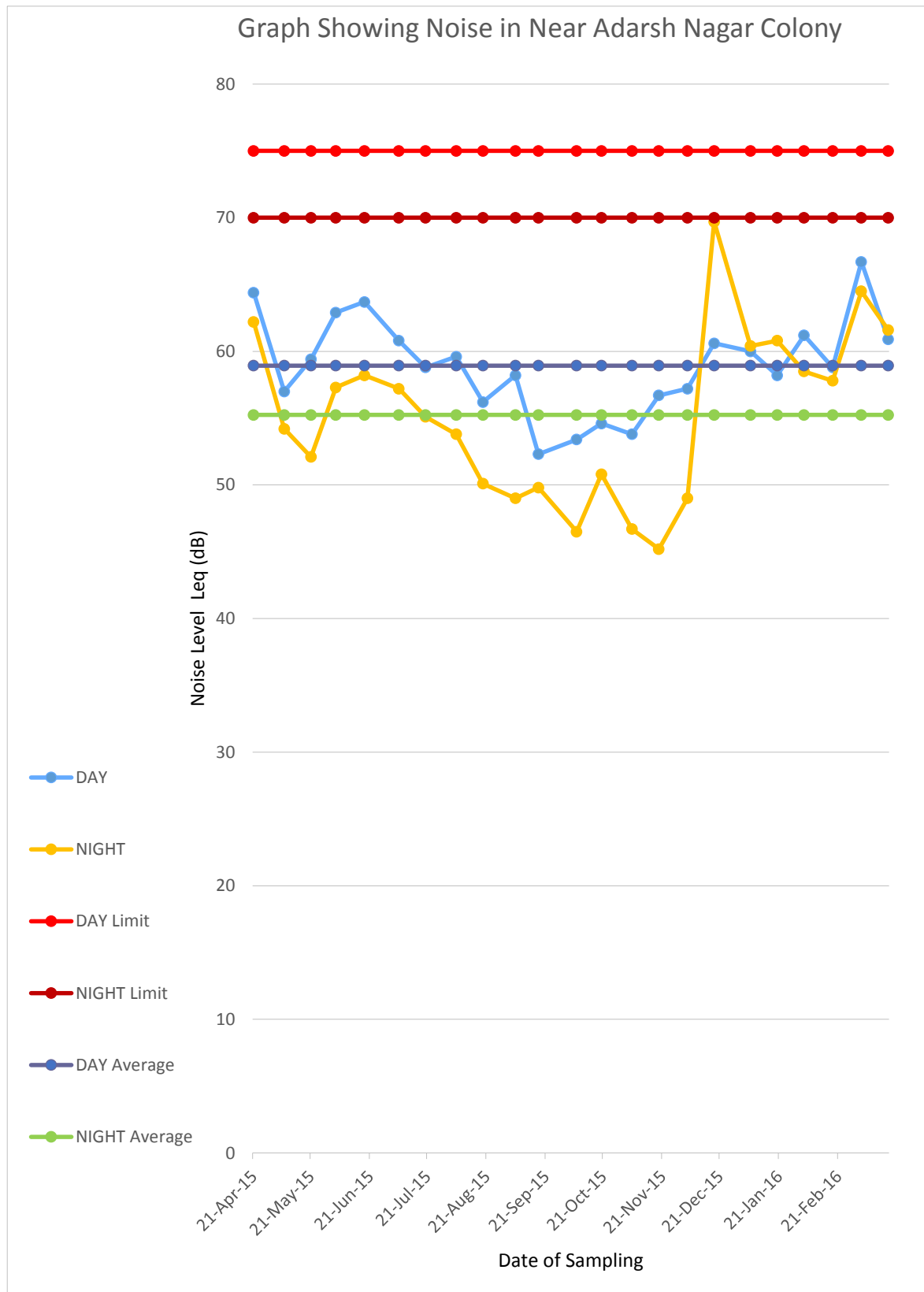


Project: Lajkura ocp
Monitoring Station: Near Adarsh Nagar Colony

Table 68

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	64.4	62.2
07-May-15	57	54.2
21-May-15	59.4	52.1
03-Jun-15	62.9	57.3
18-Jun-15	63.7	58.2
06-Jul-15	60.8	57.2
20-Jul-15	58.8	55.1
05-Aug-15	59.6	53.8
19-Aug-15	56.2	50.1
05-Sep-15	58.2	49
17-Sep-15	52.3	49.8
07-Oct-15	53.4	46.5
20-Oct-15	54.6	50.8
05-Nov-15	53.8	46.7
19-Nov-15	56.7	45.2
04-Dec-15	57.2	49
18-Dec-15	60.6	69.7
06-Jan-16	60	60.4
20-Jan-16	58.2	60.8
03-Feb-16	61.2	58.5
18-Feb-16	58.8	57.8
04-Mar-16	66.7	64.5
18-Mar-16	60.9	61.6
Brief Statistic	DAY	NIGHT
Maximum	66.70	69.70
Minimum	52.30	45.20
Average	58.93	55.24
Noise Standard	75	70

All values are in Leq (dB)

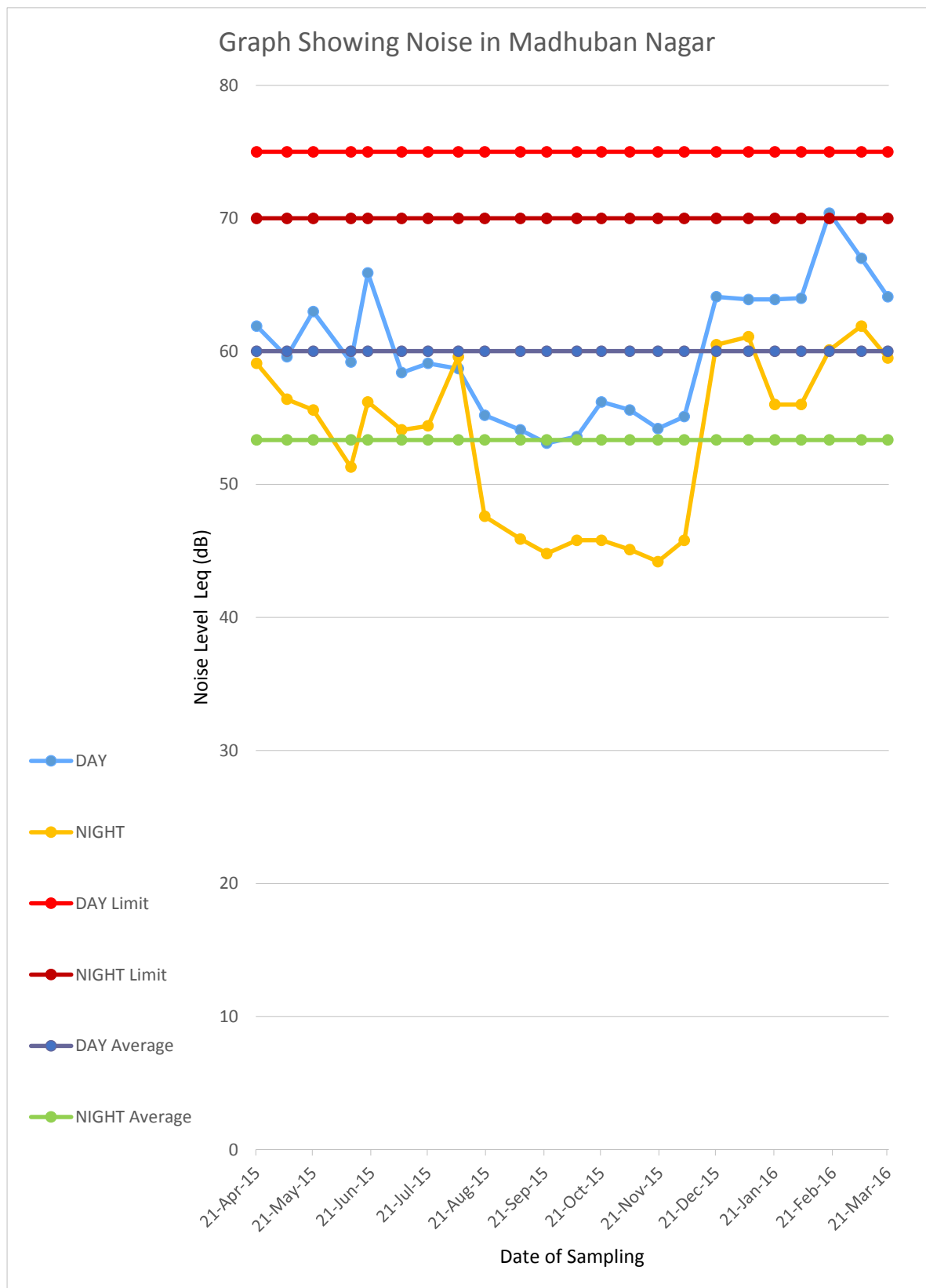


Project: Lajkura ocp
Monitoring Station: Madhuban Nagar

Table 69

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	61.9	59.1
07-May-15	59.6	56.4
21-May-15	63	55.6
10-Jun-15	59.2	51.3
19-Jun-15	65.9	56.2
07-Jul-15	58.4	54.1
21-Jul-15	59.1	54.4
06-Aug-15	58.7	59.6
20-Aug-15	55.2	47.6
08-Sep-15	54.1	45.9
22-Sep-15	53.1	44.8
08-Oct-15	53.6	45.8
21-Oct-15	56.2	45.8
05-Nov-15	55.6	45.1
20-Nov-15	54.2	44.2
04-Dec-15	55.1	45.8
21-Dec-15	64.1	60.5
07-Jan-16	63.9	61.1
21-Jan-16	63.9	56
04-Feb-16	64	56
19-Feb-16	70.4	60.1
07-Mar-16	67	61.9
21-Mar-16	64.1	59.5
Brief Statistic	DAY	NIGHT
Maximum	70.40	61.90
Minimum	53.10	44.20
Average	60.01	53.34
Noise Standard	75	70

All values are in Leq (dB)

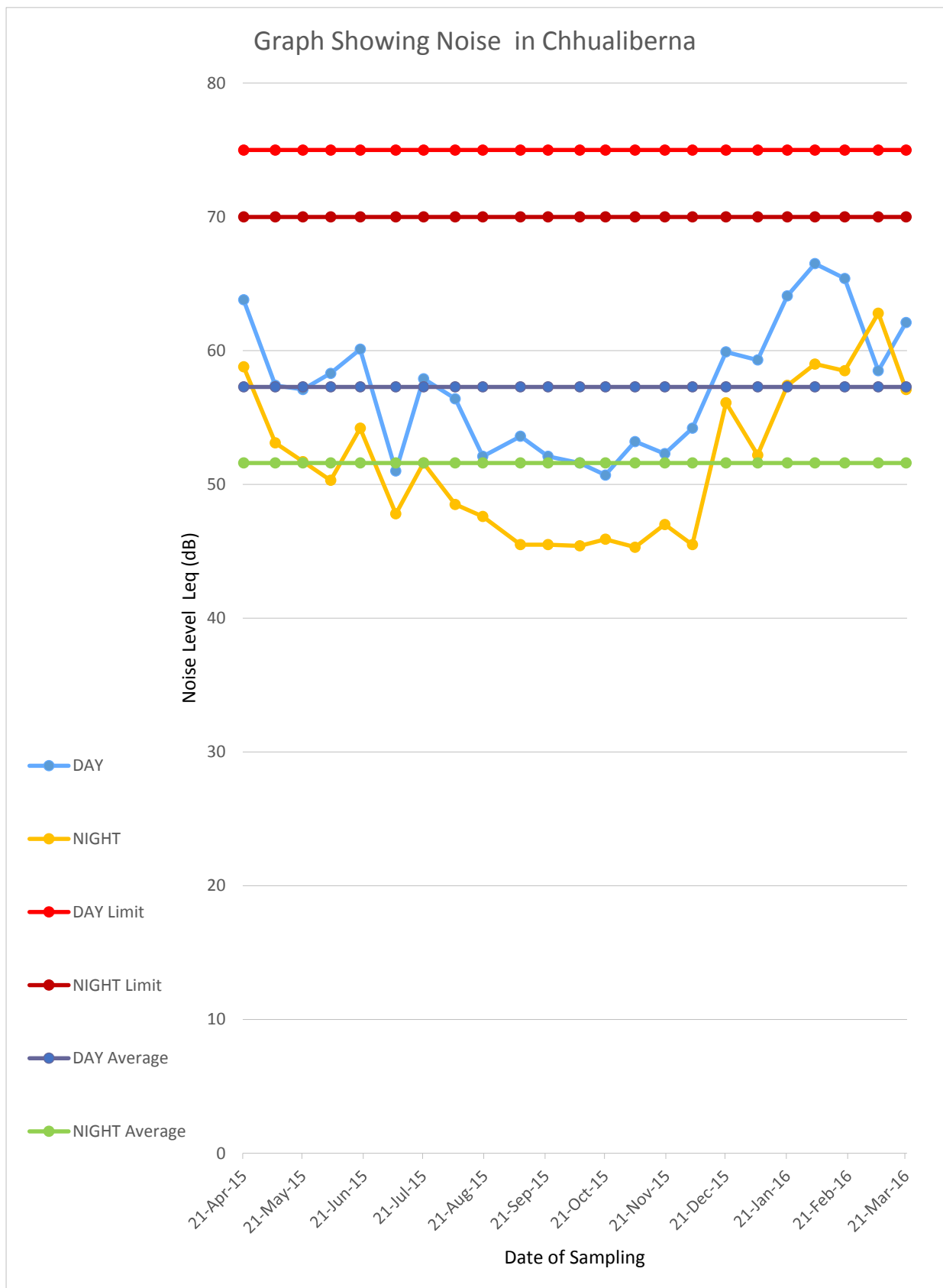


Project: Lajkura ocp
Monitoring Station: Chhualiberna

Table 70

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	63.8	58.8
07-May-15	57.4	53.1
21-May-15	57.1	51.7
04-Jun-15	58.3	50.3
19-Jun-15	60.1	54.2
07-Jul-15	51	47.8
21-Jul-15	57.9	51.6
06-Aug-15	56.4	48.5
20-Aug-15	52.1	47.6
08-Sep-15	53.6	45.5
22-Sep-15	52.1	45.5
08-Oct-15	51.6	45.4
21-Oct-15	50.7	45.9
05-Nov-15	53.2	45.3
20-Nov-15	52.3	47
04-Dec-15	54.2	45.5
21-Dec-15	59.9	56.1
06-Jan-16	59.3	52.2
21-Jan-16	64.1	57.4
04-Feb-16	66.5	59
19-Feb-16	65.4	58.5
07-Mar-16	58.5	62.8
21-Mar-16	62.1	57.1
Brief Statistic	DAY	NIGHT
Maximum	66.50	62.80
Minimum	50.70	45.30
Average	57.29	51.60
Noise Standard	75	70

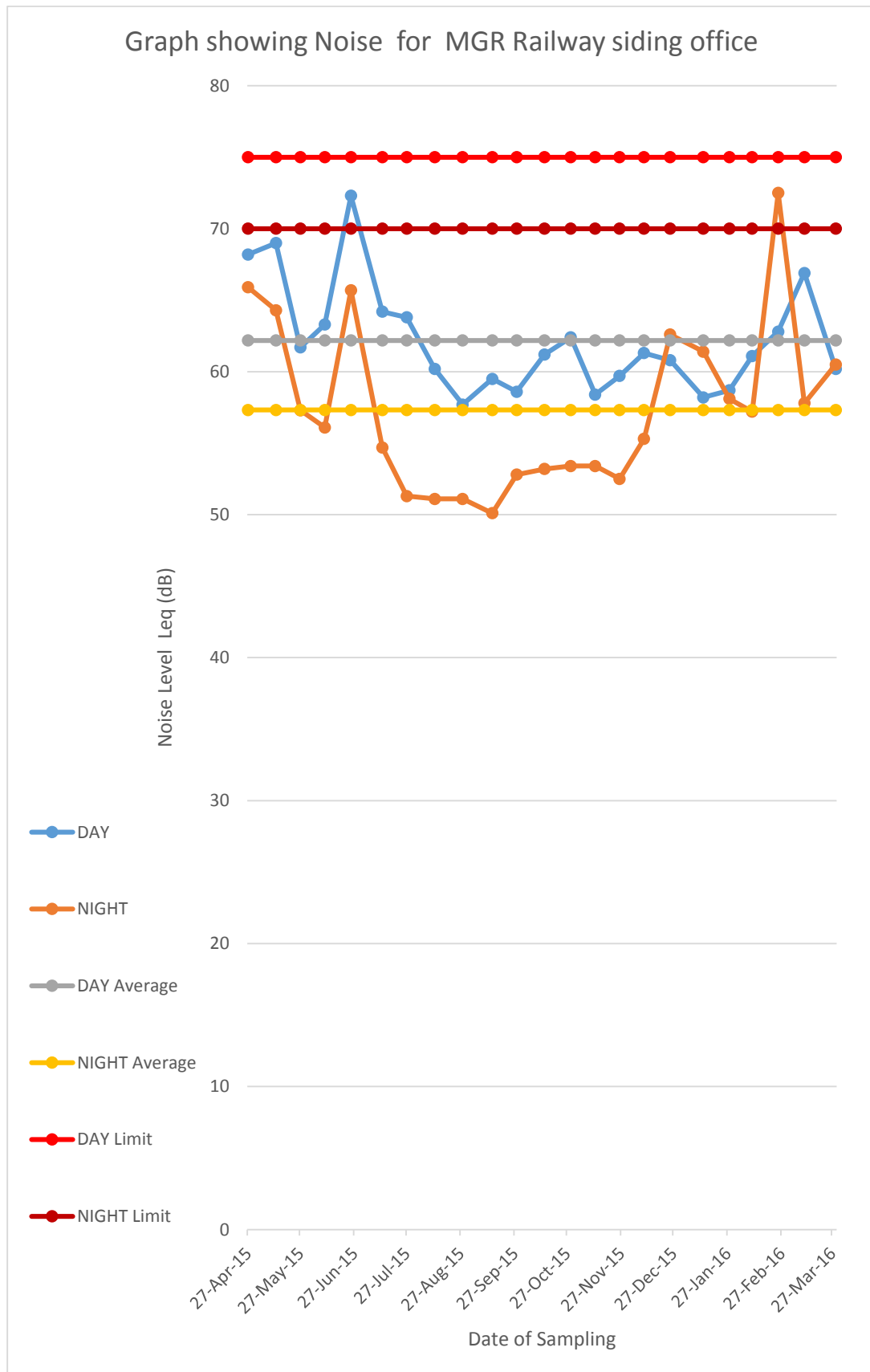
All values are in Leq (dB)



Project: Lakhanpur OCP
Monitoring Station: MGR Railway
Table 71

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	68.2	65.9
13-May-15	69	64.3
27-May-15	61.7	57.3
10-Jun-15	63.3	56.1
25-Jun-15	72.3	65.7
13-Jul-15	64.2	54.7
27-Jul-15	63.8	51.3
12-Aug-15	60.2	51.1
28-Aug-15	57.7	51.1
14-Sep-15	59.5	50.1
28-Sep-15	58.6	52.8
14-Oct-15	61.2	53.2
29-Oct-15	62.4	53.4
12-Nov-15	58.4	53.4
26-Nov-15	59.7	52.5
10-Dec-15	61.3	55.3
25-Dec-15	60.8	62.6
13-Jan-16	58.2	61.4
28-Jan-16	58.7	58.1
10-Feb-16	61.1	57.2
25-Feb-16	62.8	72.5
11-Mar-16	66.9	57.8
29-Mar-16	60.2	60.5
Brief Statistic	DAY	NIGHT
Maximum	72.30	72.50
Minimum	57.70	50.10
Average	62.18	57.32
Noise Standard	75	70

All values are in Leq (dB)

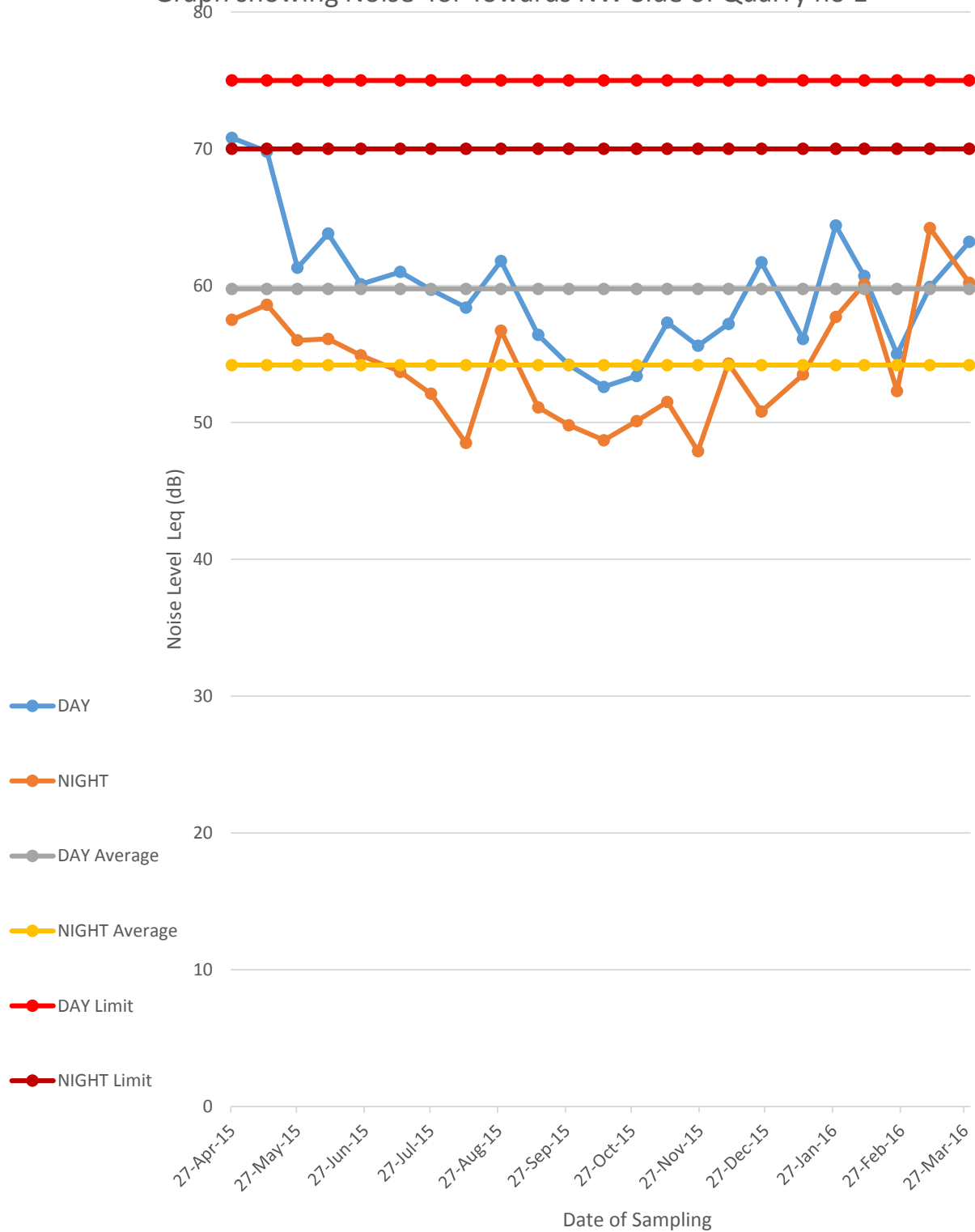


Project: Lakhanpur OCP
Monitoring Station: Towards N-W side of Quarry no 1
Table 72

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	70.8	57.5
13-May-15	69.8	58.6
27-May-15	61.3	56
10-Jun-15	63.8	56.1
25-Jun-15	60.1	54.9
13-Jul-15	61	53.7
27-Jul-15	59.7	52.1
12-Aug-15	58.4	48.5
28-Aug-15	61.8	56.7
14-Sep-15	56.4	51.1
28-Sep-15	54.2	49.8
14-Oct-15	52.6	48.7
29-Oct-15	53.4	50.1
12-Nov-15	57.3	51.5
26-Nov-15	55.6	47.9
10-Dec-15	57.2	54.3
25-Dec-15	61.7	50.8
13-Jan-16	56.1	53.5
28-Jan-16	64.4	57.7
10-Feb-16	60.7	60.1
25-Feb-16	55	52.3
11-Mar-16	59.9	64.2
29-Mar-16	63.2	60.2
Brief Statistic	DAY	NIGHT
Maximum	70.80	64.20
Minimum	52.60	47.90
Average	59.76	54.19
Noise Standard	75	70

All values are in Leq (dB)

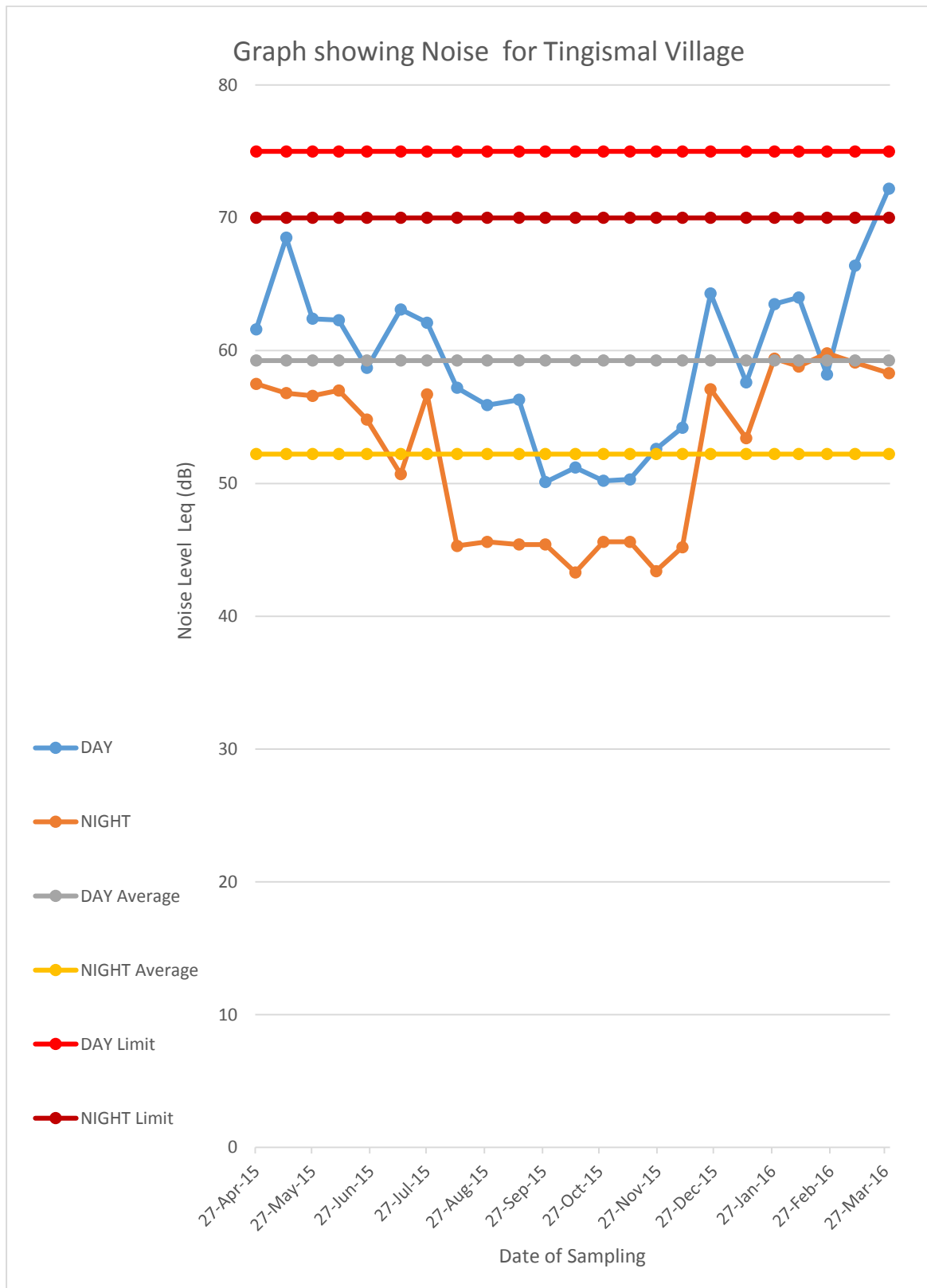
Graph showing Noise for Towards NW Side of Quarry no 1



Project: Lakhanpur OCP
Monitoring Station: Tingismal Village
Table 73

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	61.6	57.5
13-May-15	68.5	56.8
27-May-15	62.4	56.6
10-Jun-15	62.3	57
25-Jun-15	58.7	54.8
13-Jul-15	63.1	50.7
27-Jul-15	62.1	56.7
12-Aug-15	57.2	45.3
28-Aug-15	55.9	45.6
14-Sep-15	56.3	45.4
28-Sep-15	50.1	45.4
14-Oct-15	51.2	43.3
29-Oct-15	50.2	45.6
12-Nov-15	50.3	45.6
26-Nov-15	52.6	43.4
10-Dec-15	54.2	45.2
25-Dec-15	64.3	57.1
13-Jan-16	57.6	53.4
28-Jan-16	63.5	59.4
10-Feb-16	64	58.8
25-Feb-16	58.2	59.8
11-Mar-16	66.4	59.1
29-Mar-16	72.2	58.3
Brief Statistic	DAY	NIGHT
Maximum	72.20	59.80
Minimum	50.10	43.30
Average	59.26	52.21
Noise Standard	75	70

All values are in Leq (dB)

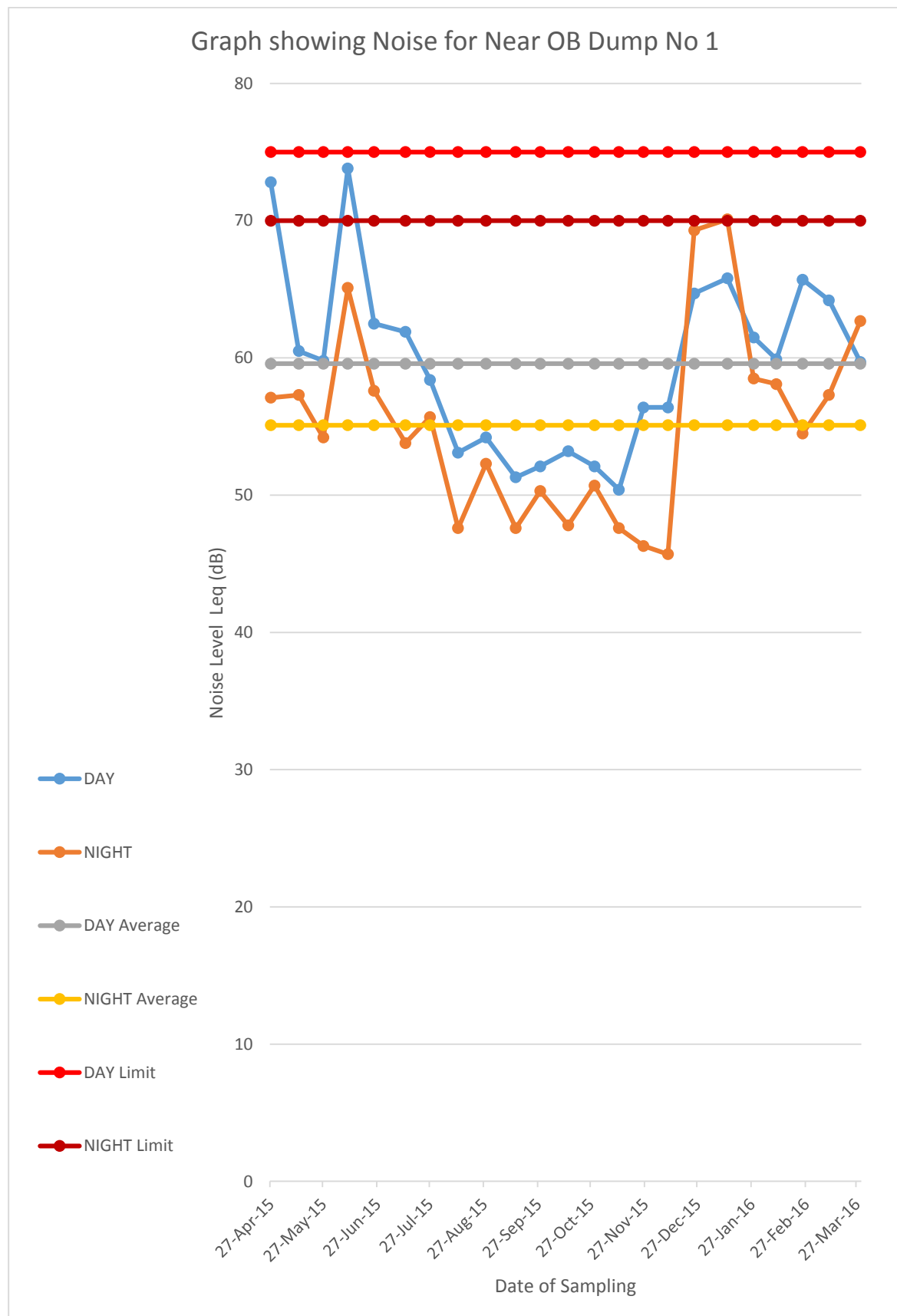


Project: Lakhanpur OCP
Monitoring Station: Near OB dump No.1
Table 74

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	72.8	57.1
13-May-15	60.5	57.3
27-May-15	59.8	54.2
10-Jun-15	73.8	65.1
25-Jun-15	62.5	57.6
13-Jul-15	61.9	53.8
27-Jul-15	58.4	55.7
12-Aug-15	53.1	47.6
28-Aug-15	54.2	52.3
14-Sep-15	51.3	47.6
28-Sep-15	52.1	50.3
14-Oct-15	53.2	47.8
29-Oct-15	52.1	50.7
12-Nov-15	50.4	47.6
26-Nov-15	56.4	46.3
10-Dec-15	56.4	45.7
25-Dec-15	64.7	69.3
13-Jan-16	65.8	70.1
28-Jan-16	61.5	58.5
10-Feb-16	59.9	58.1
25-Feb-16	65.7	54.5
11-Mar-16	64.2	57.3
29-Mar-16	59.7	62.7
Brief Statistic	DAY	NIGHT
Maximum	73.80	70.10
Minimum	50.40	45.70
Average	59.58	55.10
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near OB Dump No 1

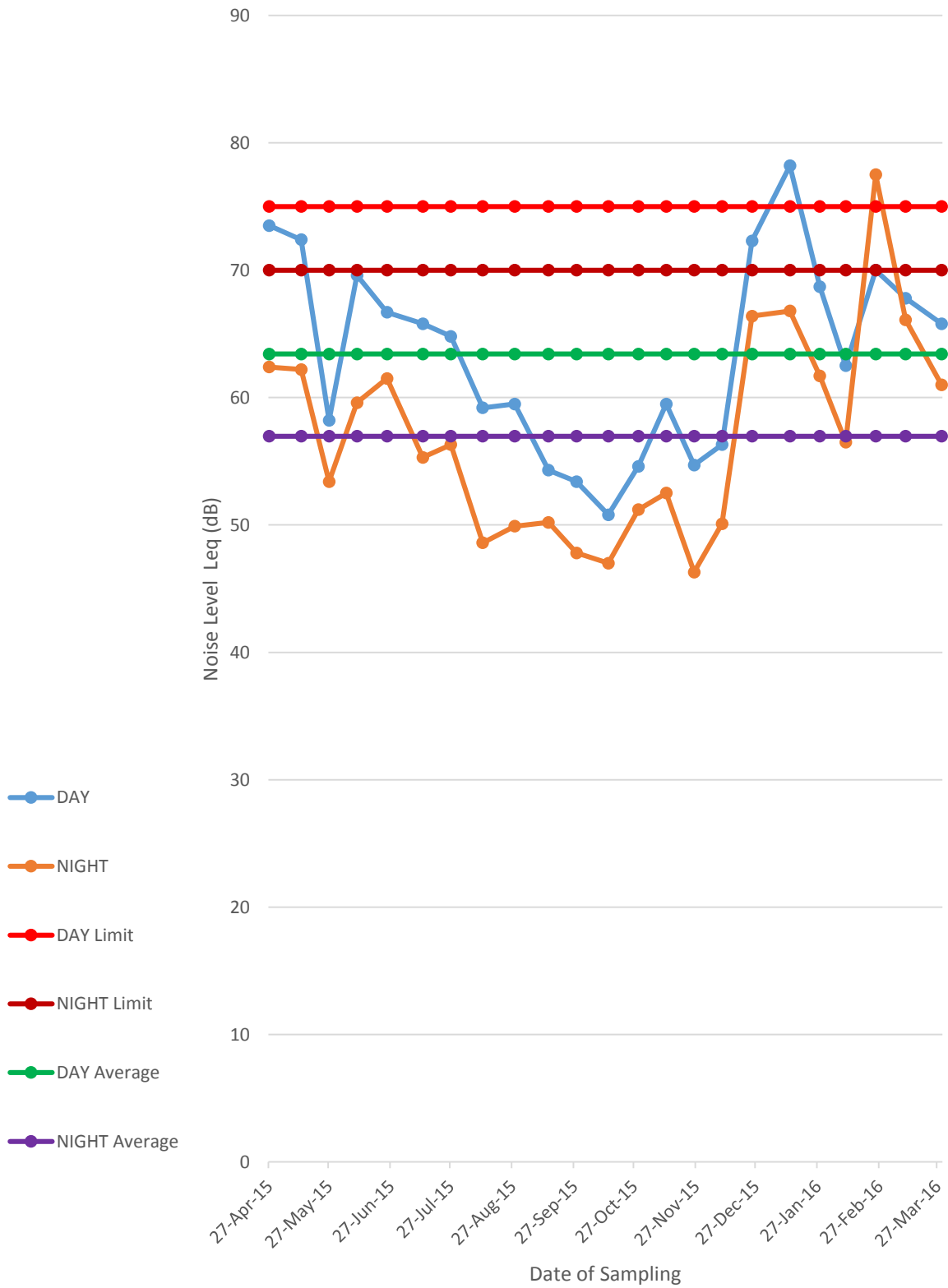


Project: Lakhanpur OCP
Monitoring Station: Quarry 3 sub station
Table 75

DATE OF SAMPLING	DAY	NIGHT
27-Apr-15	73.5	62.4
13-May-15	72.4	62.2
27-May-15	58.2	53.4
10-Jun-15	69.6	59.6
25-Jun-15	66.7	61.5
13-Jul-15	65.8	55.3
27-Jul-15	64.8	56.3
12-Aug-15	59.2	48.6
28-Aug-15	59.5	49.9
14-Sep-15	54.3	50.2
28-Sep-15	53.4	47.8
14-Oct-15	50.8	47
29-Oct-15	54.6	51.2
12-Nov-15	59.5	52.5
26-Nov-15	54.7	46.3
10-Dec-15	56.3	50.1
25-Dec-15	72.3	66.4
13-Jan-16	78.2	66.8
28-Jan-16	68.7	61.7
10-Feb-16	62.5	56.5
25-Feb-16	70	77.5
11-Mar-16	67.8	66.1
29-Mar-16	65.8	61
Brief Statistic	DAY	NIGHT
Maximum	78.20	77.50
Minimum	50.80	46.30
Average	63.42	56.97
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Quarry 3 Sub Station

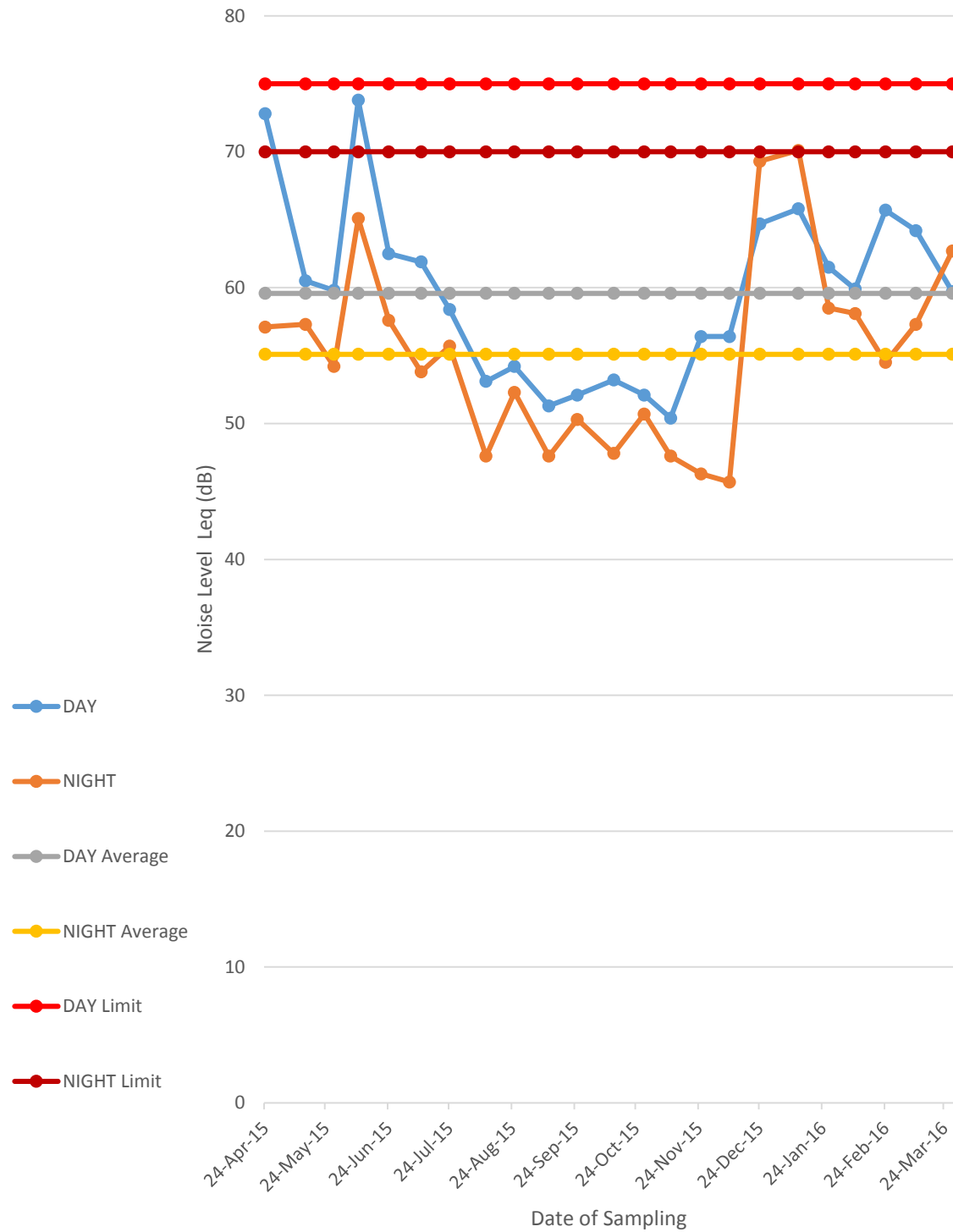


Project: Lilari OCP
Monitoring Station: Near Lilari Pump House
Table 76

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	72.8	57.1
14-May-15	60.5	57.3
28-May-15	59.8	54.2
09-Jun-15	73.8	65.1
24-Jun-15	62.5	57.6
10-Jul-15	61.9	53.8
24-Jul-15	58.4	55.7
11-Aug-15	53.1	47.6
25-Aug-15	54.2	52.3
11-Sep-15	51.3	47.6
25-Sep-15	52.1	50.3
13-Oct-15	53.2	47.8
28-Oct-15	52.1	50.7
10-Nov-15	50.4	47.6
25-Nov-15	56.4	46.3
09-Dec-15	56.4	45.7
24-Dec-15	64.7	69.3
12-Jan-16	65.8	70.1
27-Jan-16	61.5	58.5
09-Feb-16	59.9	58.1
24-Feb-16	65.7	54.5
10-Mar-16	64.2	57.3
28-Mar-16	59.7	62.7
Brief Statistic	DAY	NIGHT
Maximum	73.80	70.10
Minimum	50.40	45.70
Average	59.58	55.10
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Lilari Pump House

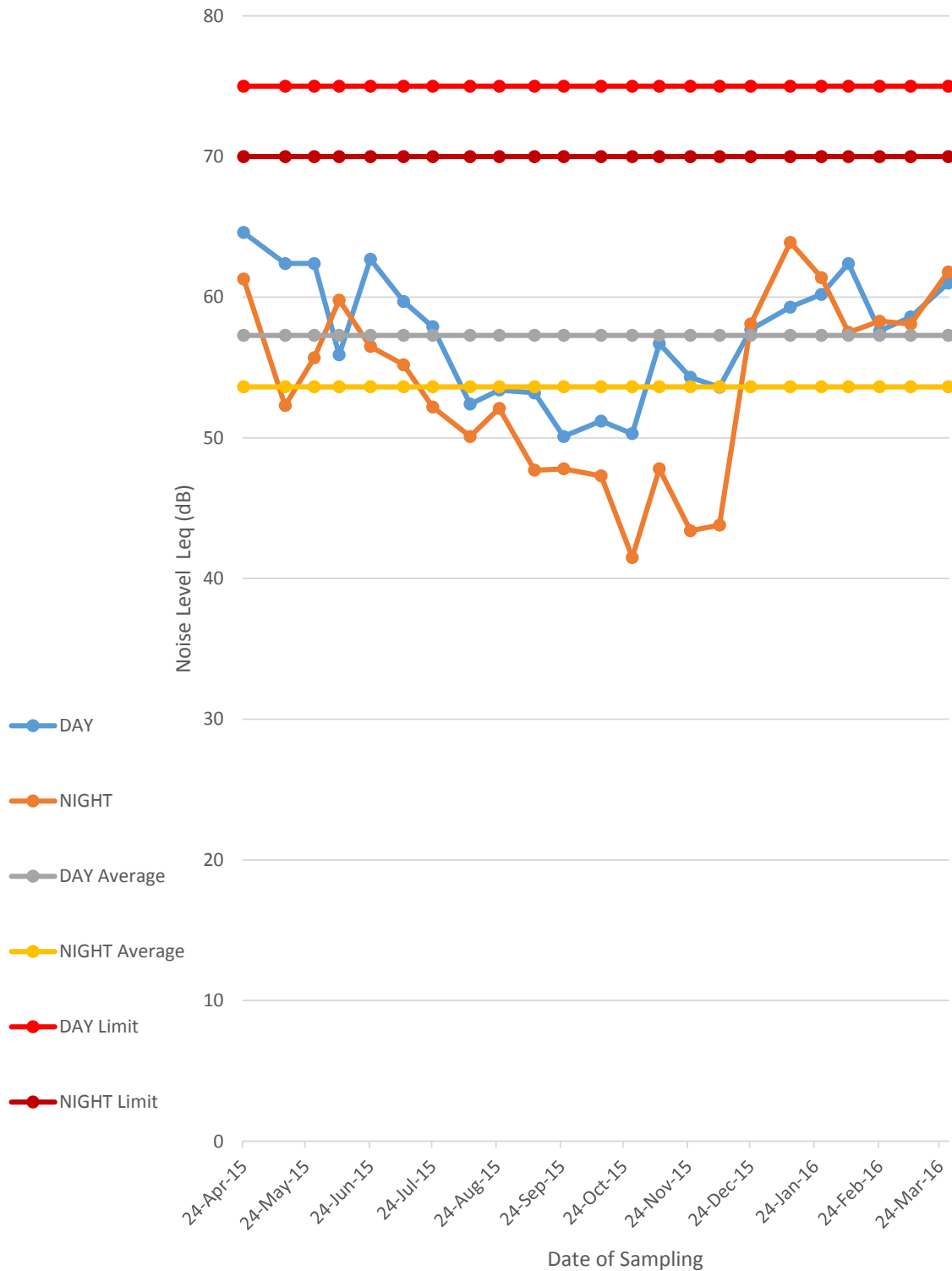


Project: Lilari OCP
Monitoring Station: Near Magazine House
Table 77

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	64.6	61.3
14-May-15	62.4	52.3
28-May-15	62.4	55.7
09-Jun-15	55.9	59.8
24-Jun-15	62.7	56.5
10-Jul-15	59.7	55.2
24-Jul-15	57.9	52.2
11-Aug-15	52.4	50.1
25-Aug-15	53.4	52.1
11-Sep-15	53.2	47.7
25-Sep-15	50.1	47.8
13-Oct-15	51.2	47.3
28-Oct-15	50.3	41.5
10-Nov-15	56.7	47.8
25-Nov-15	54.3	43.4
09-Dec-15	53.6	43.8
24-Dec-15	57.7	58.1
12-Jan-16	59.3	63.9
27-Jan-16	60.2	61.4
09-Feb-16	62.4	57.5
24-Feb-16	57.6	58.3
10-Mar-16	58.6	58.1
28-Mar-16	61	61.8
Brief Statistic	DAY	NIGHT
Maximum	64.60	63.90
Minimum	50.10	41.50
Average	57.29	53.63
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Magazine House

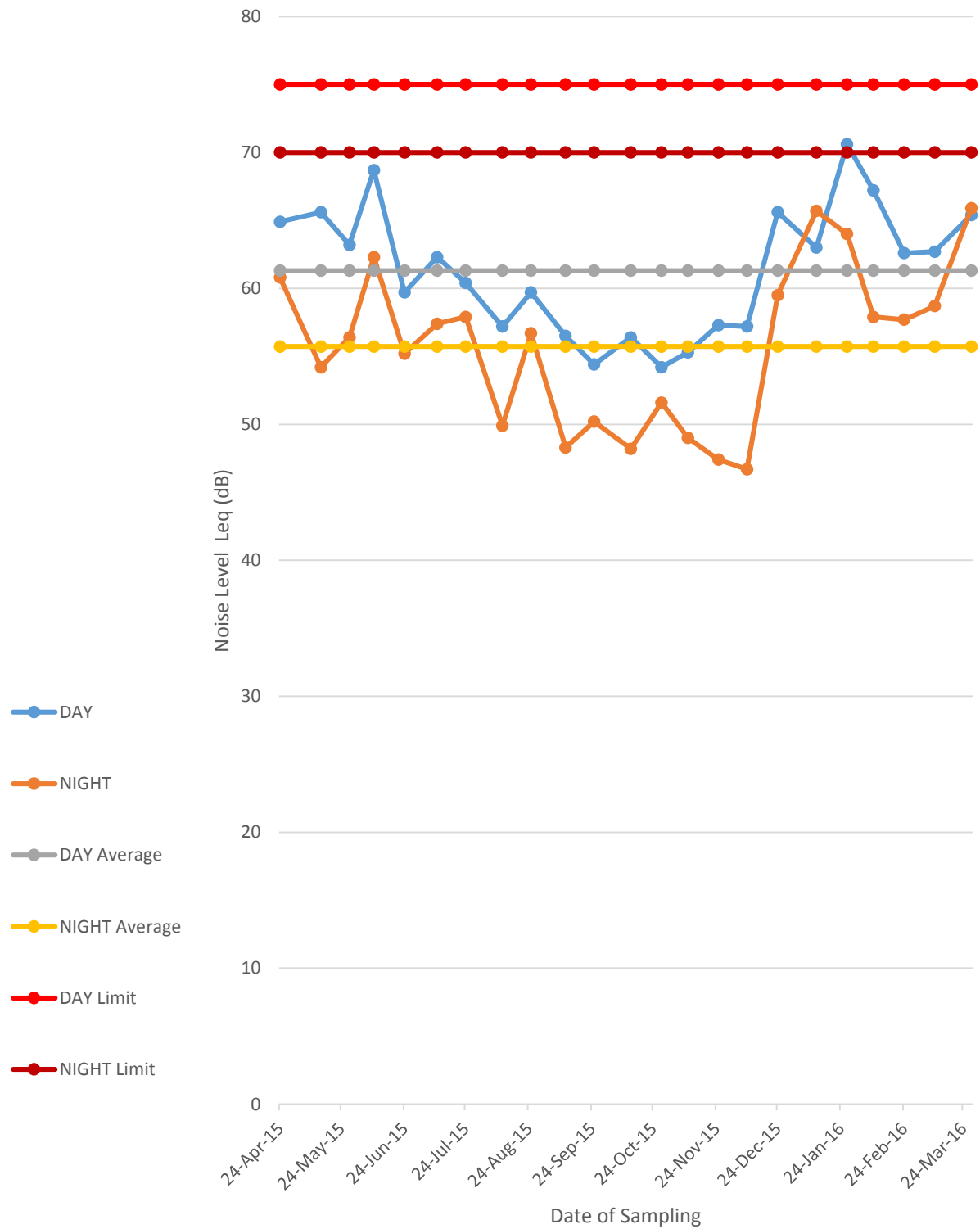


Project: Lilari OCP
Monitoring Station: Near Old Coal Stock Yard
Table 78

DATE OF SAMPLING	DAY	NIGHT
24-Apr-15	64.9	60.8
14-May-15	65.6	54.2
28-May-15	63.2	56.4
09-Jun-15	68.7	62.3
24-Jun-15	59.7	55.2
10-Jul-15	62.3	57.4
24-Jul-15	60.4	57.9
11-Aug-15	57.2	49.9
25-Aug-15	59.7	56.7
11-Sep-15	56.5	48.3
25-Sep-15	54.4	50.2
13-Oct-15	56.4	48.2
28-Oct-15	54.2	51.6
10-Nov-15	55.3	49
25-Nov-15	57.3	47.4
09-Dec-15	57.2	46.7
24-Dec-15	65.6	59.5
12-Jan-16	63	65.7
27-Jan-16	70.6	64
09-Feb-16	67.2	57.9
24-Feb-16	62.6	57.7
10-Mar-16	62.7	58.7
28-Mar-16	65.4	65.9
Brief Statistic	DAY	NIGHT
Maximum	70.60	65.90
Minimum	54.20	46.70
Average	61.31	55.72
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Old Coal Stock Yard

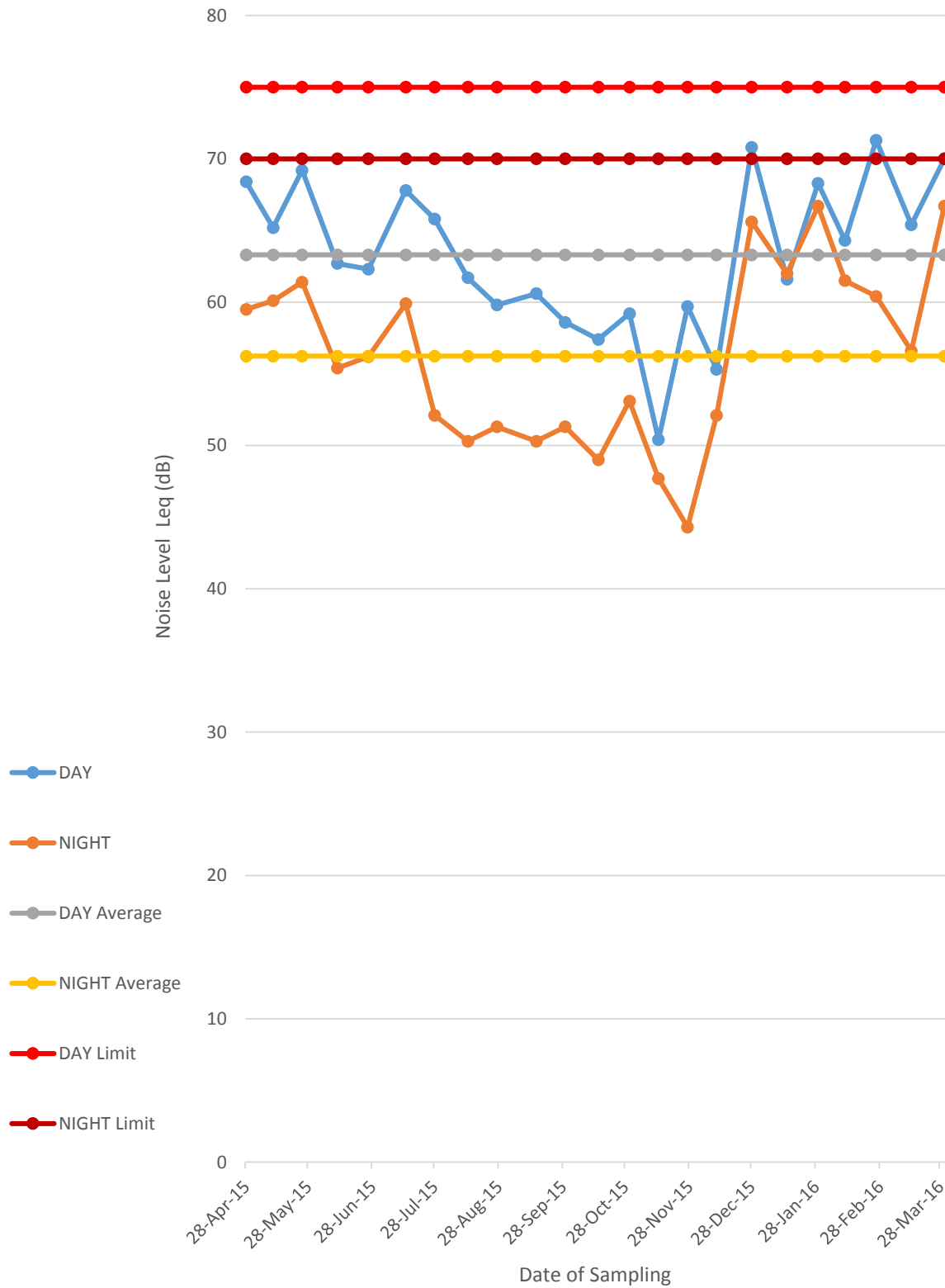


Project: Belpahar OCP
Monitoring Station: Bandabahal Township BIT
Table 79

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	68.4	59.5
11-May-15	65.2	60.1
25-May-15	69.2	61.4
11-Jun-15	62.7	55.4
26-Jun-15	62.3	56.2
14-Jul-15	67.8	59.9
28-Jul-15	65.8	52.1
13-Aug-15	61.7	50.3
27-Aug-15	59.8	51.3
15-Sep-15	60.6	50.3
29-Sep-15	58.6	51.3
15-Oct-15	57.4	49
30-Oct-15	59.2	53.1
13-Nov-15	50.4	47.7
27-Nov-15	59.7	44.3
11-Dec-15	55.3	52.1
28-Dec-15	70.8	65.6
14-Jan-16	61.6	62
29-Jan-16	68.3	66.7
11-Feb-16	64.3	61.5
26-Feb-16	71.3	60.4
14-Mar-16	65.4	56.6
30-Mar-16	70	66.7
Brief Statistic	DAY	NIGHT
Maximum	71.30	66.70
Minimum	50.40	44.30
Average	63.30	56.24
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Bandabahal Township BIT

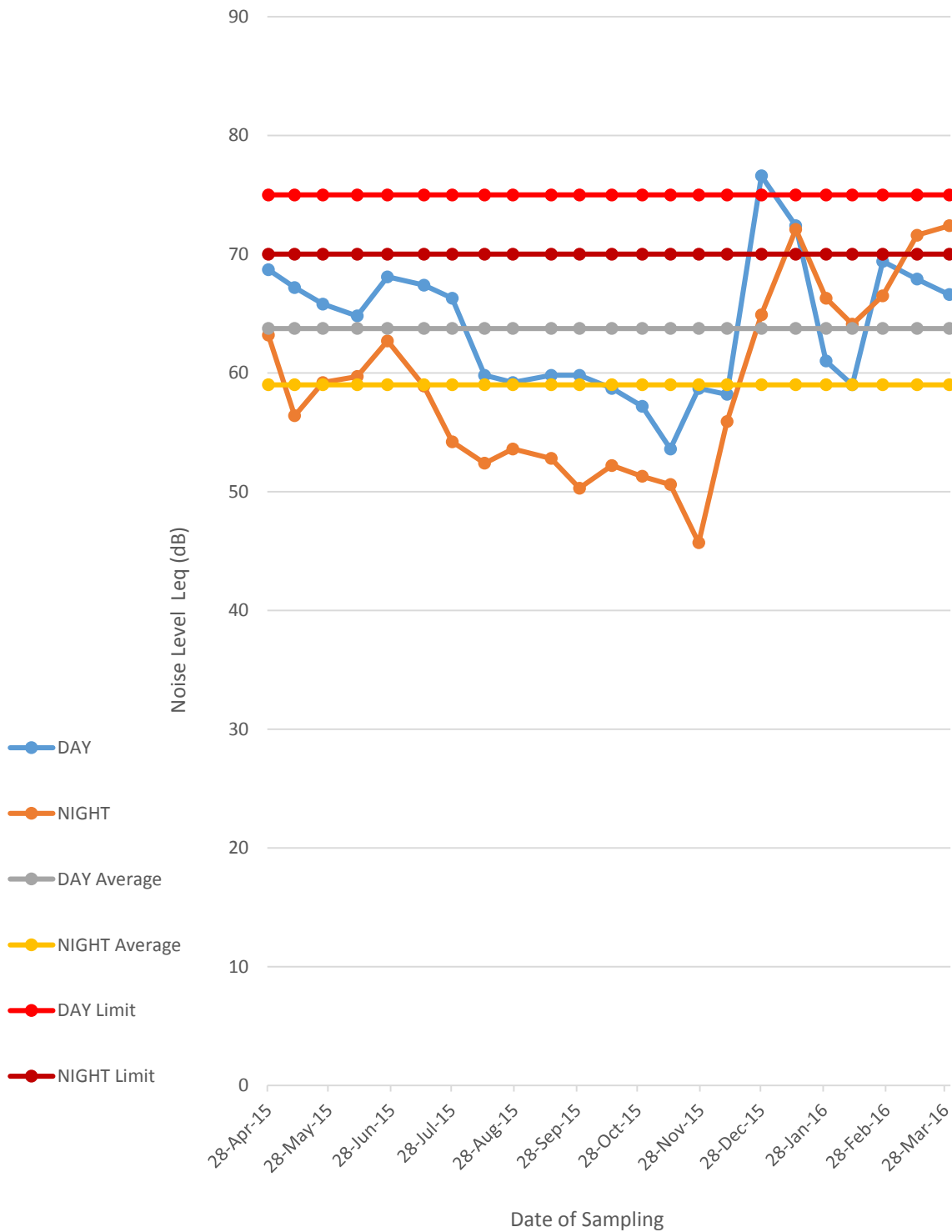


Project: Belpahar OCP
Monitoring Station: Quarry No.3 junction
Table 80

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	68.7	63.2
11-May-15	67.2	56.4
25-May-15	65.8	59.2
11-Jun-15	64.8	59.7
26-Jun-15	68.1	62.7
14-Jul-15	67.4	58.9
28-Jul-15	66.3	54.2
13-Aug-15	59.8	52.4
27-Aug-15	59.2	53.6
15-Sep-15	59.8	52.8
29-Sep-15	59.8	50.3
15-Oct-15	58.7	52.2
30-Oct-15	57.2	51.3
13-Nov-15	53.6	50.6
27-Nov-15	58.7	45.7
11-Dec-15	58.2	55.9
28-Dec-15	76.6	64.9
14-Jan-16	72.4	72.1
29-Jan-16	61	66.3
11-Feb-16	59	64.1
26-Feb-16	69.4	66.5
14-Mar-16	67.9	71.6
30-Mar-16	66.6	72.4
Brief Statistic	DAY	NIGHT
Maximum	76.60	72.40
Minimum	53.60	45.70
Average	63.75	59.00
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Quarry No.3 junction

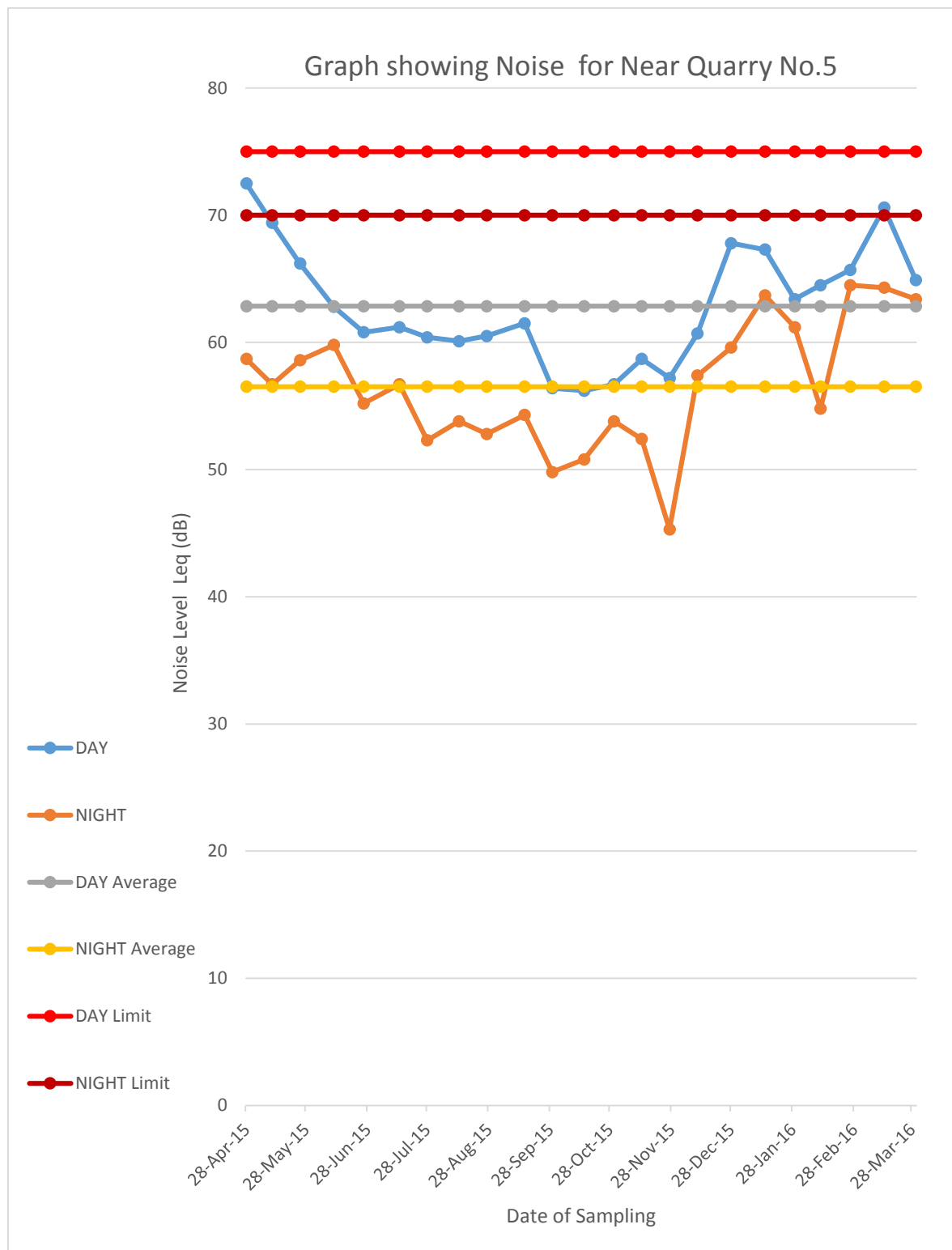


Project: Belpahar OCP
Monitoring Station: Near Quarry No.5

Table 81

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	72.5	58.7
11-May-15	69.4	56.7
25-May-15	66.2	58.6
11-Jun-15	62.8	59.8
26-Jun-15	60.8	55.2
14-Jul-15	61.2	56.7
28-Jul-15	60.4	52.3
13-Aug-15	60.1	53.8
27-Aug-15	60.5	52.8
15-Sep-15	61.5	54.3
29-Sep-15	56.4	49.8
15-Oct-15	56.2	50.8
30-Oct-15	56.7	53.8
13-Nov-15	58.7	52.4
27-Nov-15	57.2	45.3
11-Dec-15	60.7	57.4
28-Dec-15	67.8	59.6
14-Jan-16	67.3	63.7
29-Jan-16	63.4	61.2
11-Feb-16	64.5	54.8
26-Feb-16	65.7	64.5
14-Mar-16	70.6	64.3
30-Mar-16	64.9	63.4
Brief Statistic	DAY	NIGHT
Maximum	72.50	64.50
Minimum	56.20	45.30
Average	62.85	56.52
Noise Standard	75	70

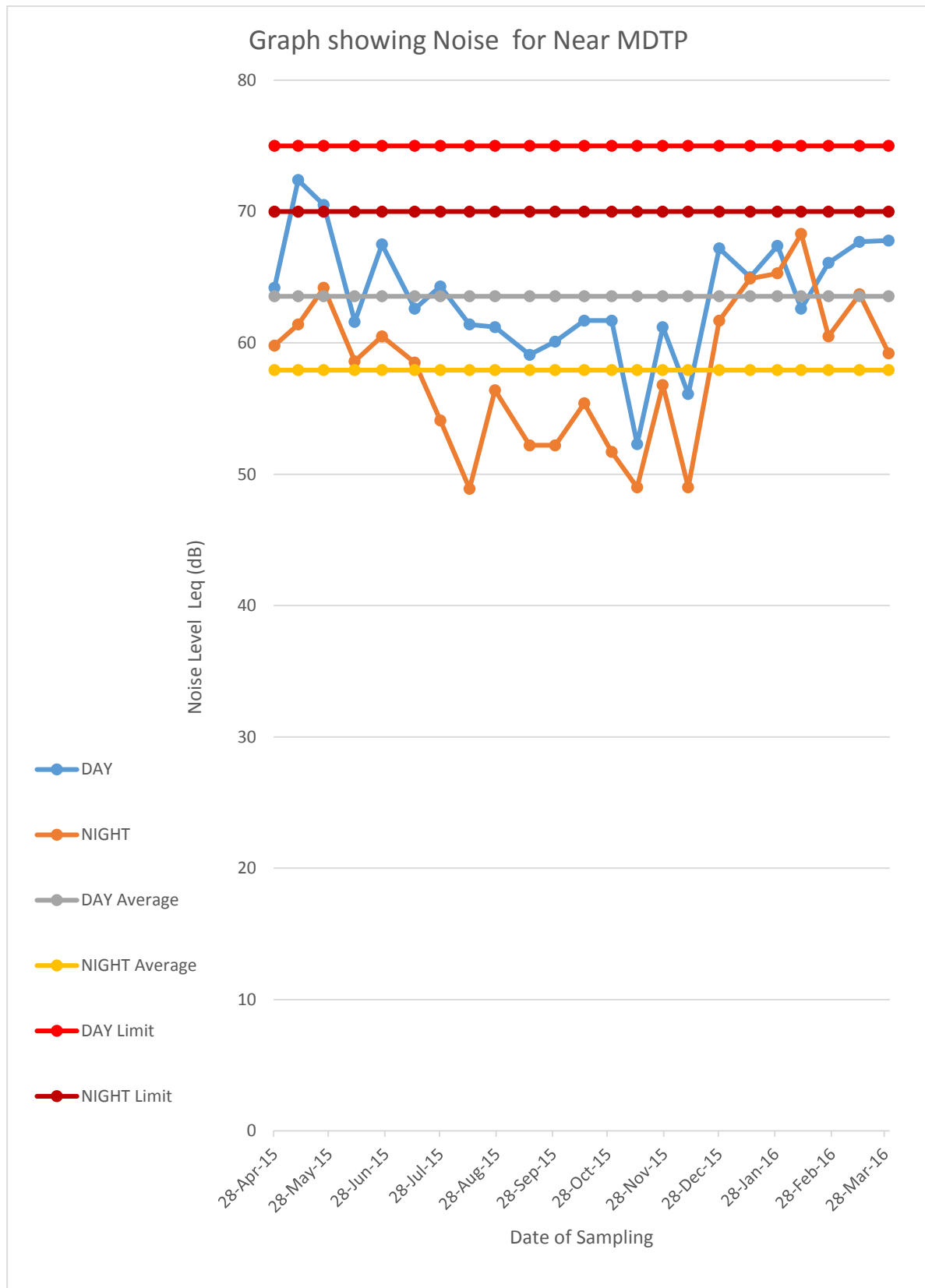
All values are in Leq (dB)



Project: Belpahar OCP
Monitoring Station: Near MDTP
Table 82

DATE OF SAMPLING	DAY	NIGHT
28-Apr-15	64.2	59.8
11-May-15	72.4	61.4
25-May-15	70.5	64.2
11-Jun-15	61.6	58.6
26-Jun-15	67.5	60.5
14-Jul-15	62.6	58.5
28-Jul-15	64.3	54.1
13-Aug-15	61.4	48.9
27-Aug-15	61.2	56.4
15-Sep-15	59.1	52.2
29-Sep-15	60.1	52.2
15-Oct-15	61.7	55.4
30-Oct-15	61.7	51.7
13-Nov-15	52.3	49
27-Nov-15	61.2	56.8
11-Dec-15	56.1	49
28-Dec-15	67.2	61.7
14-Jan-16	65	64.9
29-Jan-16	67.4	65.3
11-Feb-16	62.6	68.3
26-Feb-16	66.1	60.5
14-Mar-16	67.7	63.7
30-Mar-16	67.8	59.2
Brief Statistic	DAY	NIGHT
Maximum	72.40	68.30
Minimum	52.30	48.90
Average	63.55	57.93
Noise Standard	75	70

All values are in Leq (dB)



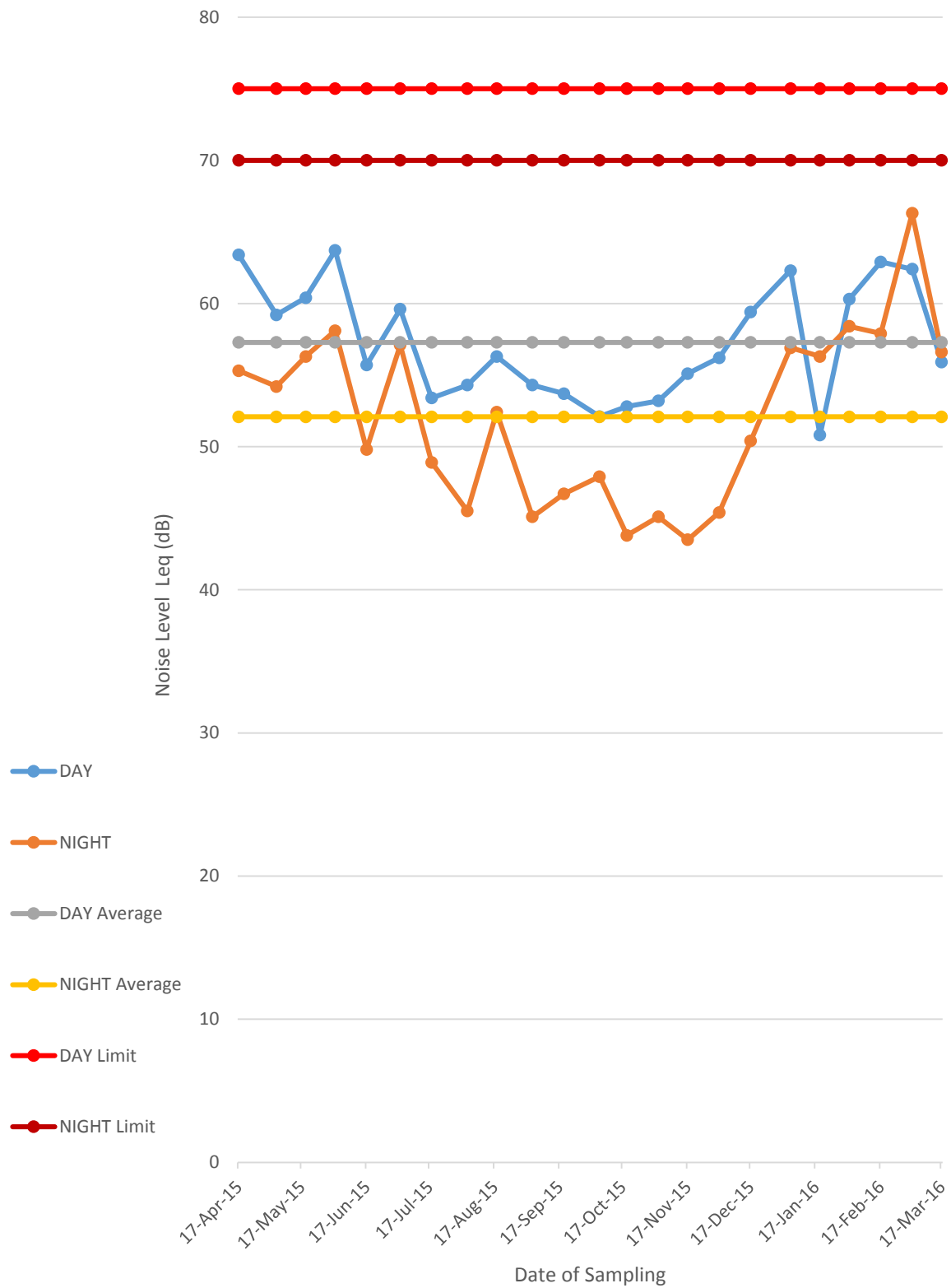
Project: Kulda OCP
Monitoring Station: Farakbahal village

Table 83

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	63.4	55.3
05-May-15	59.2	54.2
19-May-15	60.4	56.3
02-Jun-15	63.7	58.1
17-Jun-15	55.7	49.8
03-Jul-15	59.6	57.1
18-Jul-15	53.4	48.9
04-Aug-15	54.3	45.5
18-Aug-15	56.3	52.4
04-Sep-15	54.3	45.1
19-Sep-15	53.7	46.7
06-Oct-15	52.1	47.9
19-Oct-15	52.8	43.8
03-Nov-15	53.2	45.1
17-Nov-15	55.1	43.5
02-Dec-15	56.2	45.4
17-Dec-15	59.4	50.4
05-Jan-16	62.3	56.9
19-Jan-16	50.8	56.3
02-Feb-16	60.3	58.4
17-Feb-16	62.9	57.9
03-Mar-16	62.4	66.3
17-Mar-16	55.9	56.6
Brief Statistic	DAY	NIGHT
Maximum	63.70	66.30
Minimum	50.80	43.50
Average	57.28	52.08
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Farakbahal village



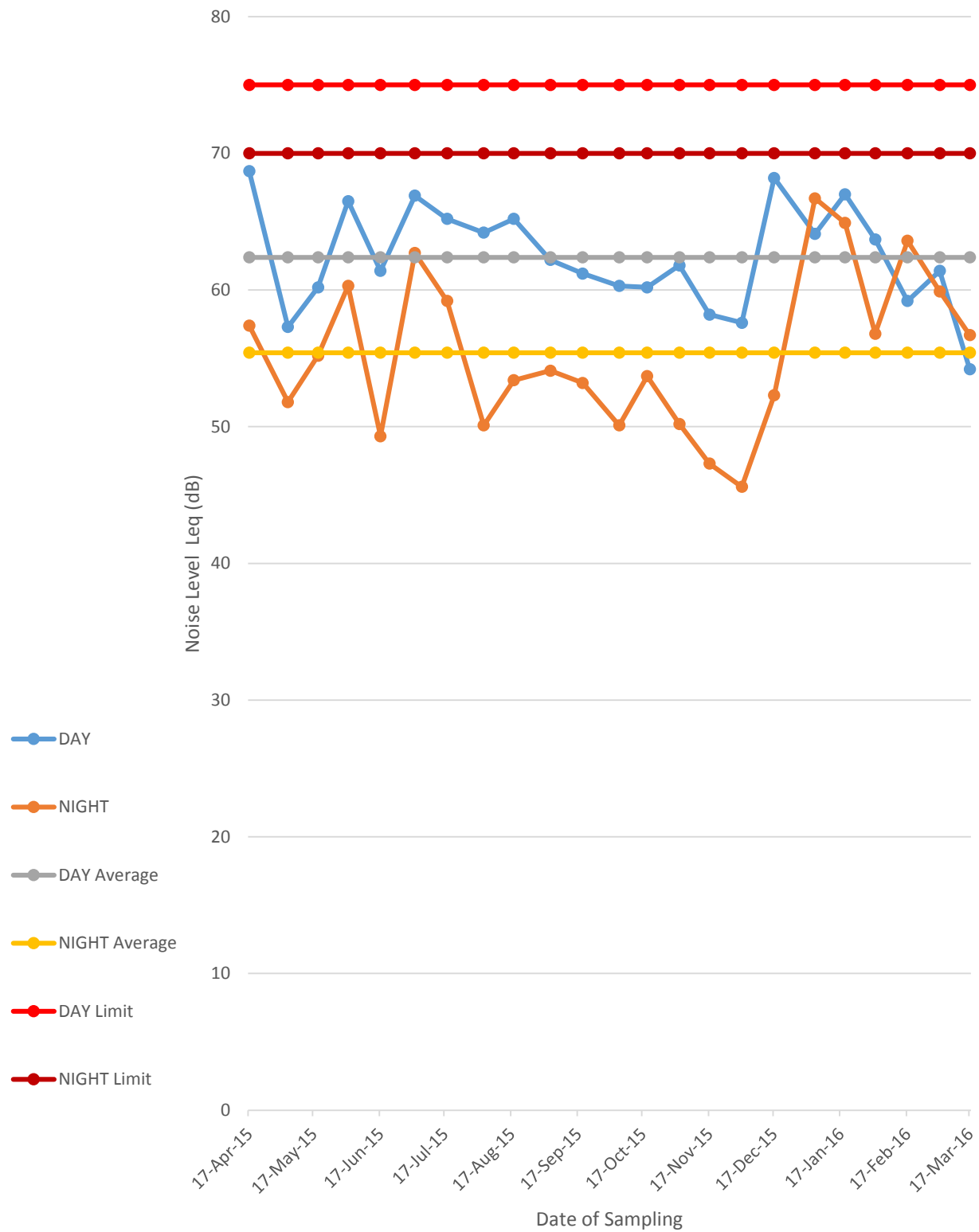
Project: Kulda OCP
Monitoring Station: Near Balinga Market

Table 84

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	68.7	57.4
05-May-15	57.3	51.8
19-May-15	60.2	55.2
02-Jun-15	66.5	60.3
17-Jun-15	61.4	49.3
03-Jul-15	66.9	62.7
18-Jul-15	65.2	59.2
04-Aug-15	64.2	50.1
18-Aug-15	65.2	53.4
04-Sep-15	62.2	54.1
19-Sep-15	61.2	53.2
06-Oct-15	60.3	50.1
19-Oct-15	60.2	53.7
03-Nov-15	61.8	50.2
17-Nov-15	58.2	47.3
02-Dec-15	57.6	45.6
17-Dec-15	68.2	52.3
05-Jan-16	64.1	66.7
19-Jan-16	67	64.9
02-Feb-16	63.7	56.8
17-Feb-16	59.2	63.6
03-Mar-16	61.4	59.9
17-Mar-16	54.2	56.7
Brief Statistic	DAY	NIGHT
Maximum	68.70	66.70
Minimum	54.20	45.60
Average	62.39	55.41
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Balinga Market

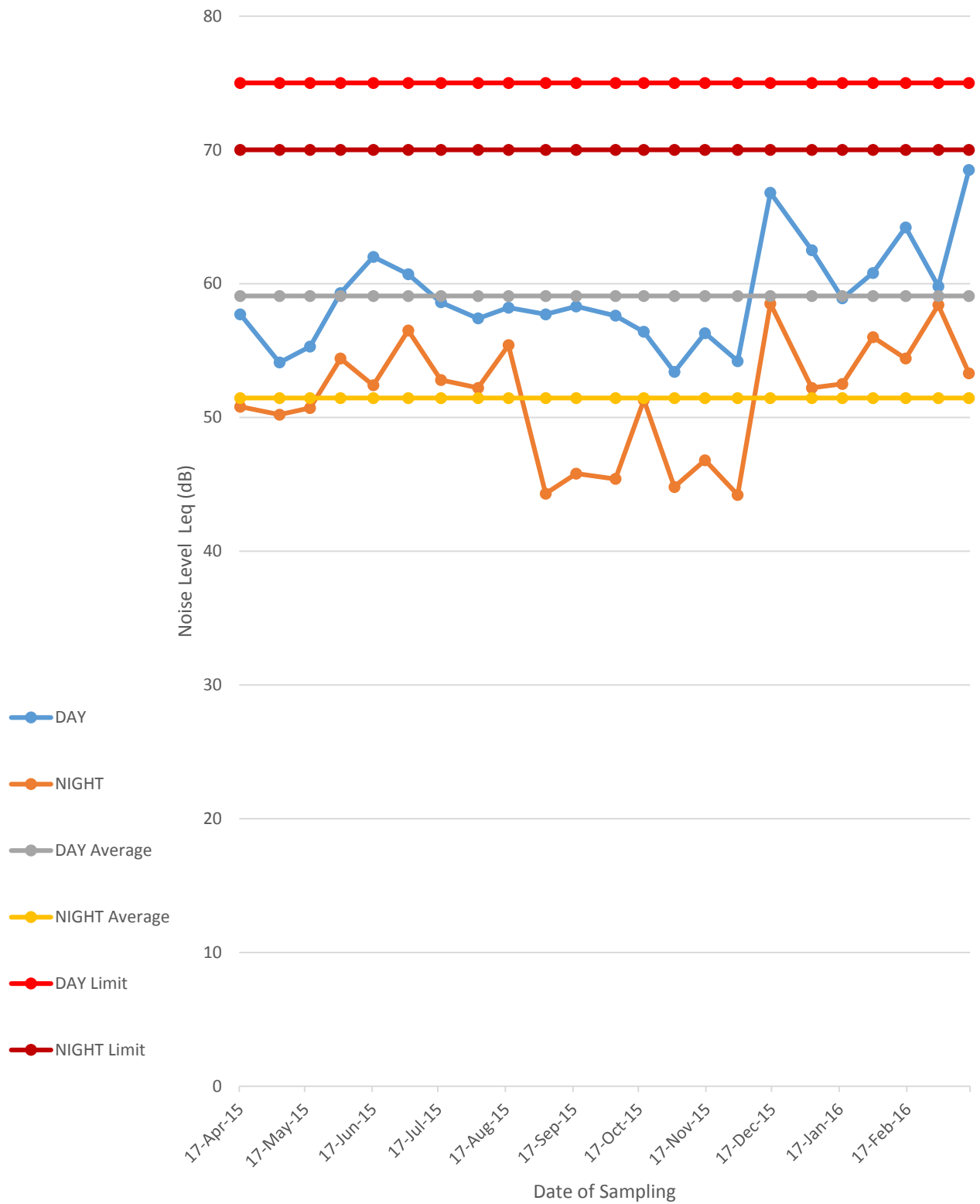


Project: Basundhara OCP
Monitoring Station: Khamarpara
Table 85

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	57.7	50.8
05-May-15	54.1	50.2
19-May-15	55.3	50.7
02-Jun-15	59.3	54.4
17-Jun-15	62	52.4
03-Jul-15	60.7	56.5
18-Jul-15	58.6	52.8
04-Aug-15	57.4	52.2
18-Aug-15	58.2	55.4
04-Sep-15	57.7	44.3
18-Sep-15	58.3	45.8
06-Oct-15	57.6	45.4
19-Oct-15	56.4	51.3
02-Nov-15	53.4	44.8
16-Nov-15	56.3	46.8
01-Dec-15	54.2	44.2
16-Dec-15	66.8	58.5
04-Jan-16	62.5	52.2
18-Jan-16	58.9	52.5
01-Feb-16	60.8	56
16-Feb-16	64.2	54.4
02-Mar-16	59.8	58.4
16-Mar-16	68.5	53.3
Brief Statistic	DAY	NIGHT
Maximum	68.5	58.5
Minimum	53.4	44.2
Average	59.1	51.4
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Khamarpara

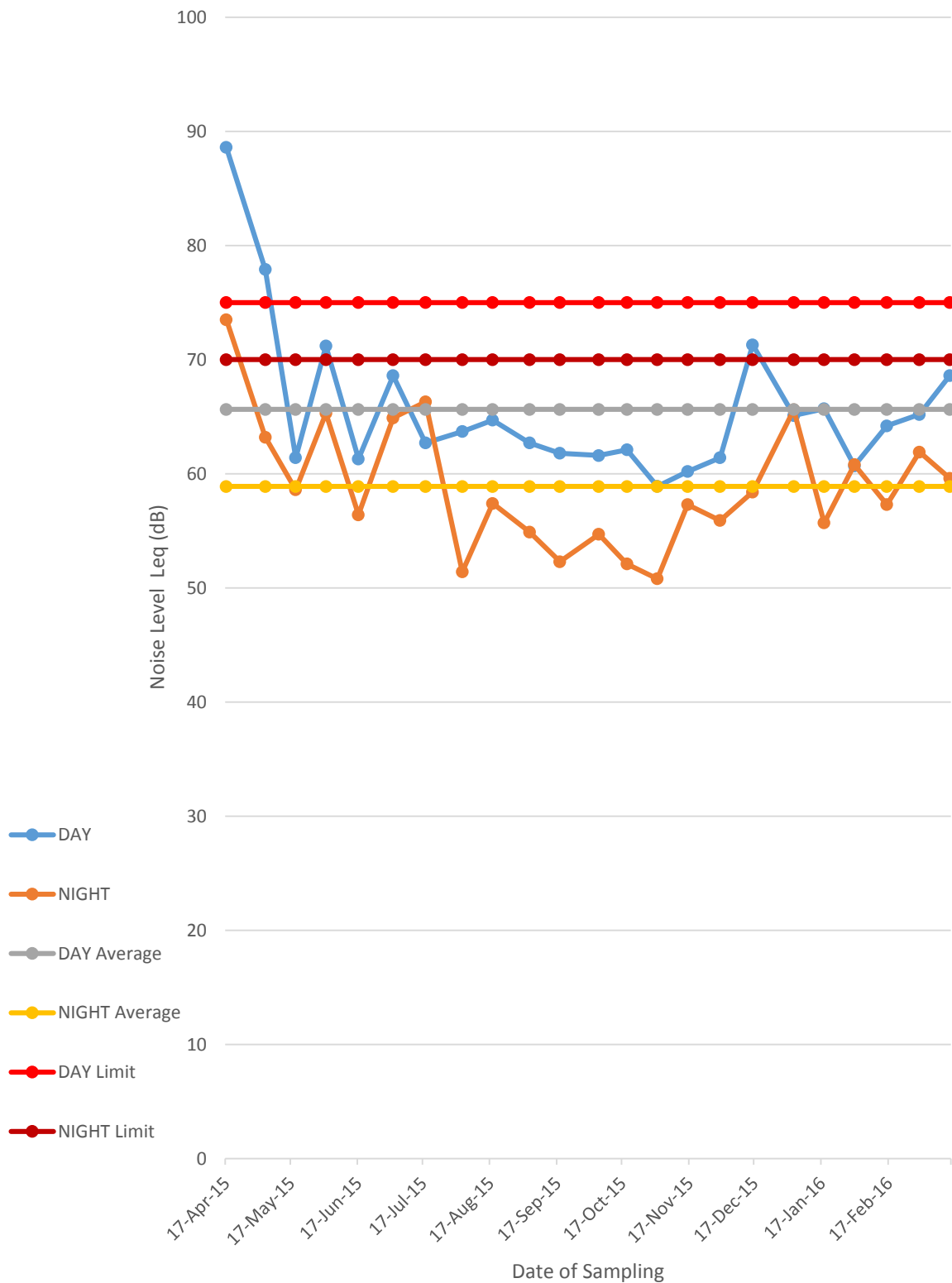


Project: Basundhara OCP
Monitoring Station: Near CHP
Table 86

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	88.6	73.5
05-May-15	77.9	63.2
19-May-15	61.4	58.6
02-Jun-15	71.2	65.3
17-Jun-15	61.3	56.4
03-Jul-15	68.6	64.9
18-Jul-15	62.7	66.3
04-Aug-15	63.7	51.4
18-Aug-15	64.7	57.4
04-Sep-15	62.7	54.9
18-Sep-15	61.8	52.3
06-Oct-15	61.6	54.7
19-Oct-15	62.1	52.1
02-Nov-15	58.9	50.8
16-Nov-15	60.2	57.3
01-Dec-15	61.4	55.9
16-Dec-15	71.3	58.4
04-Jan-16	65.1	65.6
18-Jan-16	65.7	55.7
01-Feb-16	60.7	60.8
16-Feb-16	64.2	57.3
02-Mar-16	65.2	61.9
16-Mar-16	68.6	59.6
Brief Statistic	DAY	NIGHT
Maximum	88.6	73.5
Minimum	58.9	50.8
Average	65.6	58.9
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near CHP

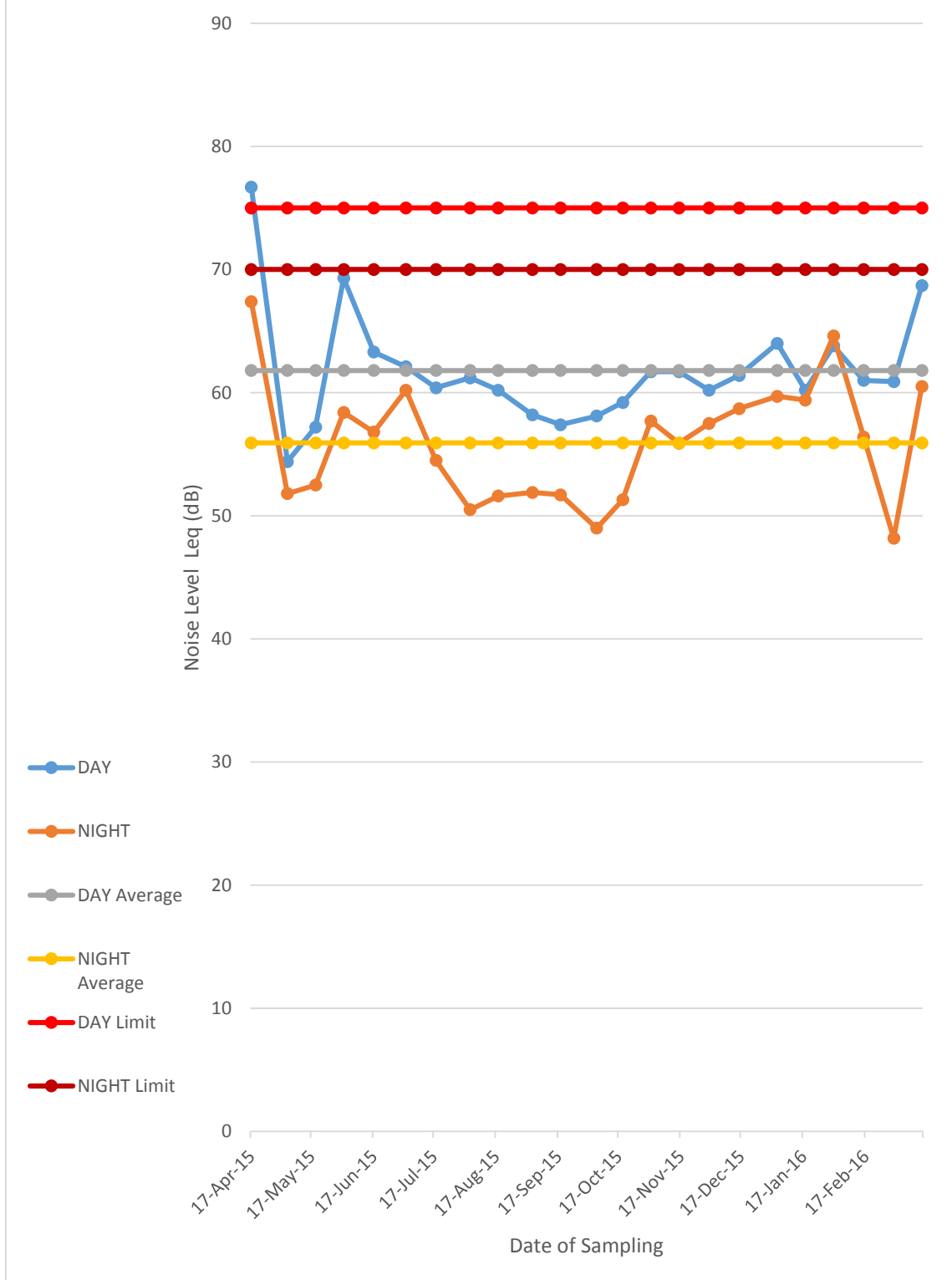


Project: Basundhara OCP
Monitoring Station: Near Embankment
Table 87

DATE OF SAMPLING	DAY	NIGHT
17-Apr-15	76.7	67.4
05-May-15	54.4	51.8
19-May-15	57.2	52.5
02-Jun-15	69.3	58.4
17-Jun-15	63.3	56.8
03-Jul-15	62.1	60.2
18-Jul-15	60.4	54.5
04-Aug-15	61.2	50.5
18-Aug-15	60.2	51.6
04-Sep-15	58.2	51.9
18-Sep-15	57.4	51.7
06-Oct-15	58.1	49
19-Oct-15	59.2	51.3
02-Nov-15	61.7	57.7
16-Nov-15	61.7	55.9
01-Dec-15	60.2	57.5
16-Dec-15	61.4	58.7
04-Jan-16	64	59.7
18-Jan-16	60.2	59.4
01-Feb-16	63.8	64.6
16-Feb-16	61	56.4
02-Mar-16	60.9	48.18
16-Mar-16	68.7	60.5
Brief Statistic	DAY	NIGHT
Maximum	76.7	67.4
Minimum	54.4	48.2
Average	61.8	55.9
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Embankment



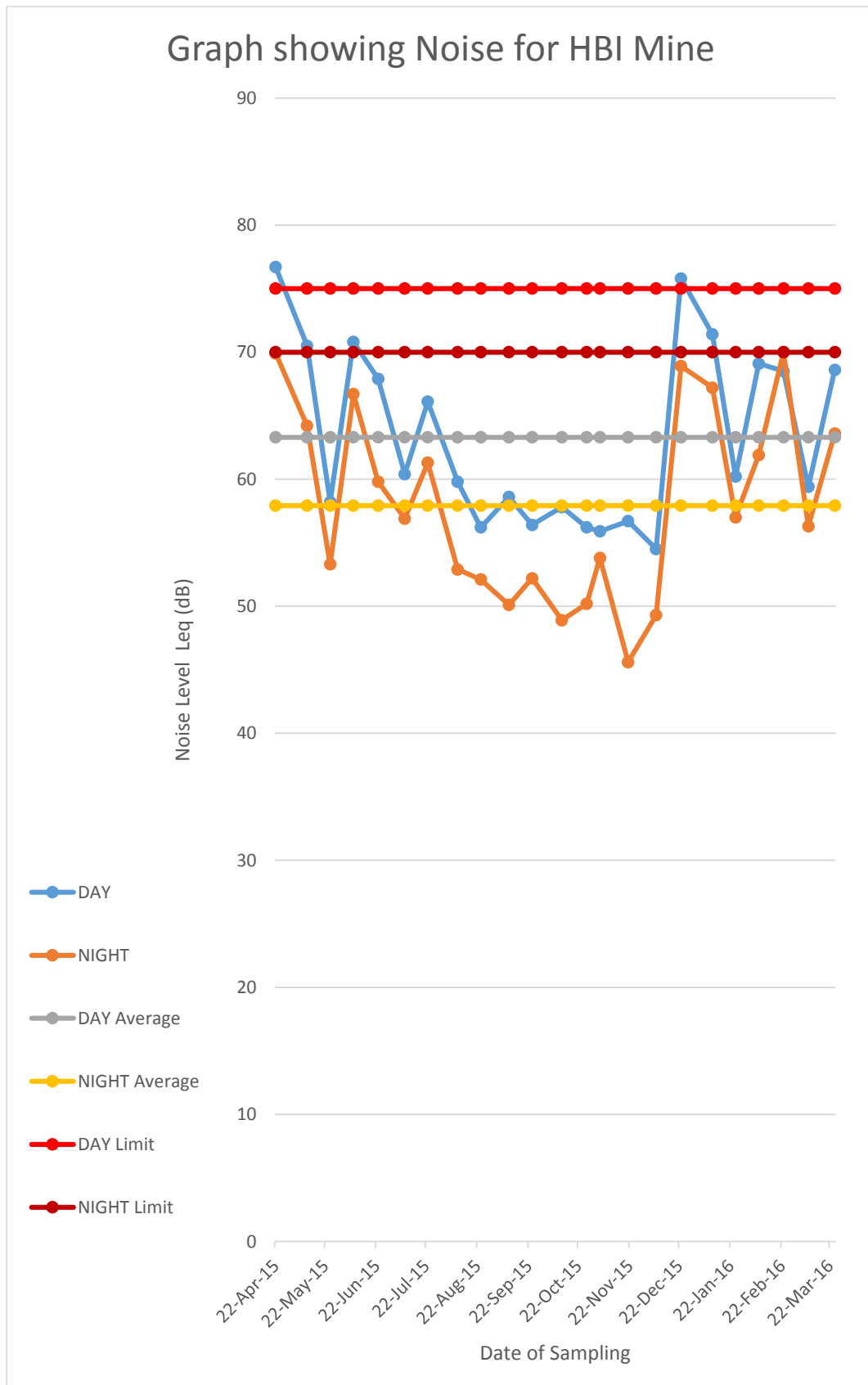
Project: Orient Area
Monitoring Station: HBI Mine

Table 88

DATE OF SAMPLING	DAY	NIGHT
22-Apr-15	76.7	69.9
11-May-15	70.5	64.2
25-May-15	58.2	53.3
08-Jun-15	70.8	66.7
23-Jun-15	67.9	59.8
09-Jul-15	60.4	56.9
23-Jul-15	66.1	61.3
10-Aug-15	59.8	52.9
24-Aug-15	56.2	52.1
10-Sep-15	58.6	50.1
24-Sep-15	56.4	52.2
12-Oct-15	57.8	48.9
27-Oct-15	56.2	50.2
04-Nov-15	55.9	53.8
21-Nov-15	56.7	45.6
08-Dec-15	54.5	49.3
23-Dec-15	75.8	68.9
11-Jan-16	71.4	67.2
25-Jan-16	60.2	57
08-Feb-16	69.1	61.9
23-Feb-16	68.5	70
09-Mar-16	59.4	56.3
25-Mar-16	68.6	63.6
Brief Statistic	DAY	NIGHT
Maximum	76.70	70.00
Minimum	54.50	45.60
Average	63.29	57.92
Noise Standard	75	70

All values are in Leq (dB)

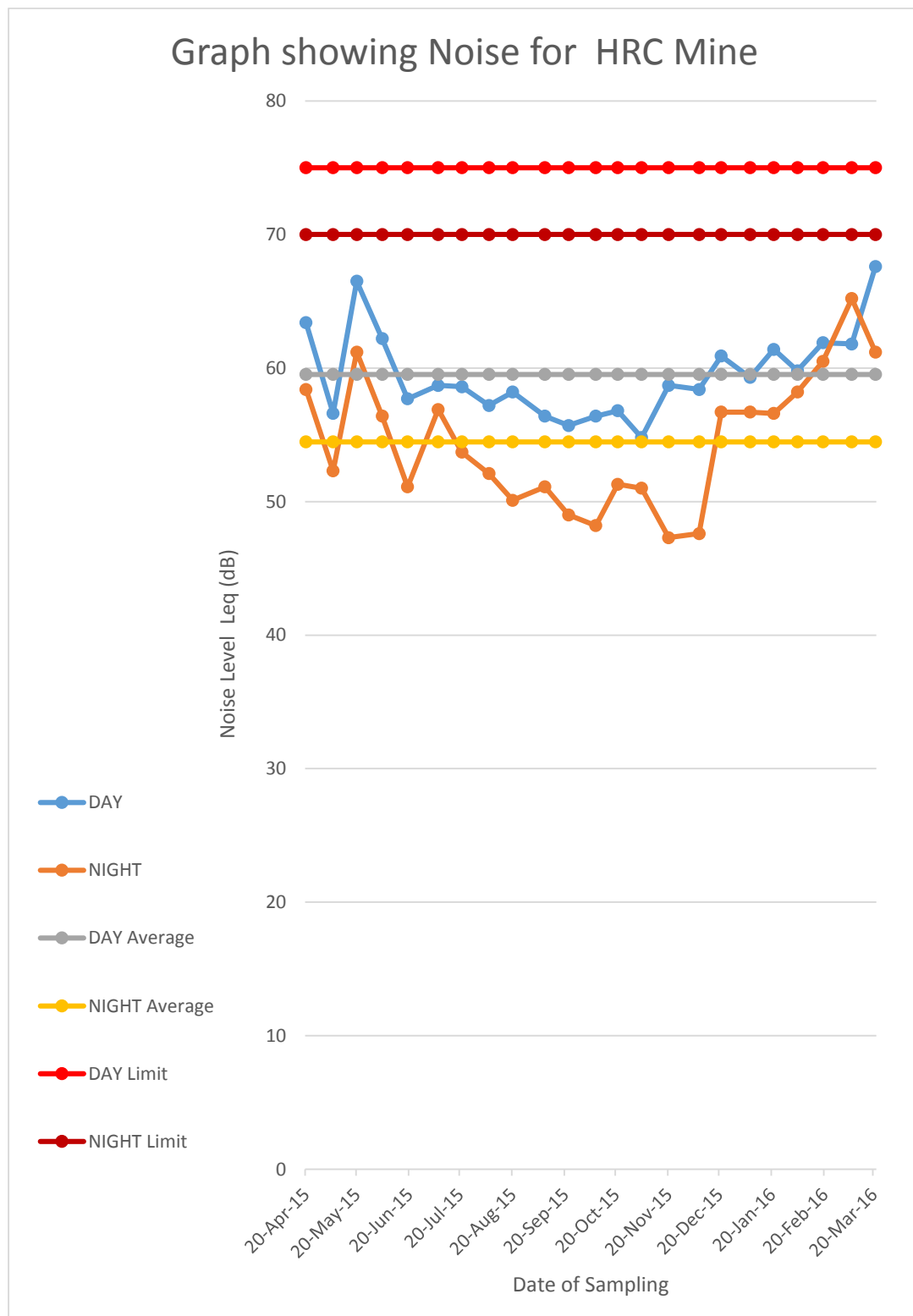
Graph showing Noise for HBI Mine



Project: Orient Area
Monitoring Station: HRC Mine
Table 89

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	63.4	58.4
06-May-15	56.6	52.3
20-May-15	66.5	61.2
04-Jun-15	62.2	56.4
19-Jun-15	57.7	51.1
07-Jul-15	58.7	56.9
21-Jul-15	58.6	53.7
06-Aug-15	57.2	52.1
20-Aug-15	58.2	50.1
08-Sep-15	56.4	51.1
22-Sep-15	55.7	49
08-Oct-15	56.4	48.2
21-Oct-15	56.8	51.3
04-Nov-15	54.8	51
20-Nov-15	58.7	47.3
08-Dec-15	58.4	47.6
21-Dec-15	60.9	56.7
07-Jan-16	59.3	56.7
21-Jan-16	61.4	56.6
04-Feb-16	59.8	58.2
19-Feb-16	61.9	60.5
07-Mar-16	61.8	65.2
21-Mar-16	67.6	61.2
Brief Statistic	DAY	NIGHT
Maximum	67.60	65.20
Minimum	54.80	47.30
Average	59.52	54.47
Noise Standard	75	70

All values are in Leq (dB)

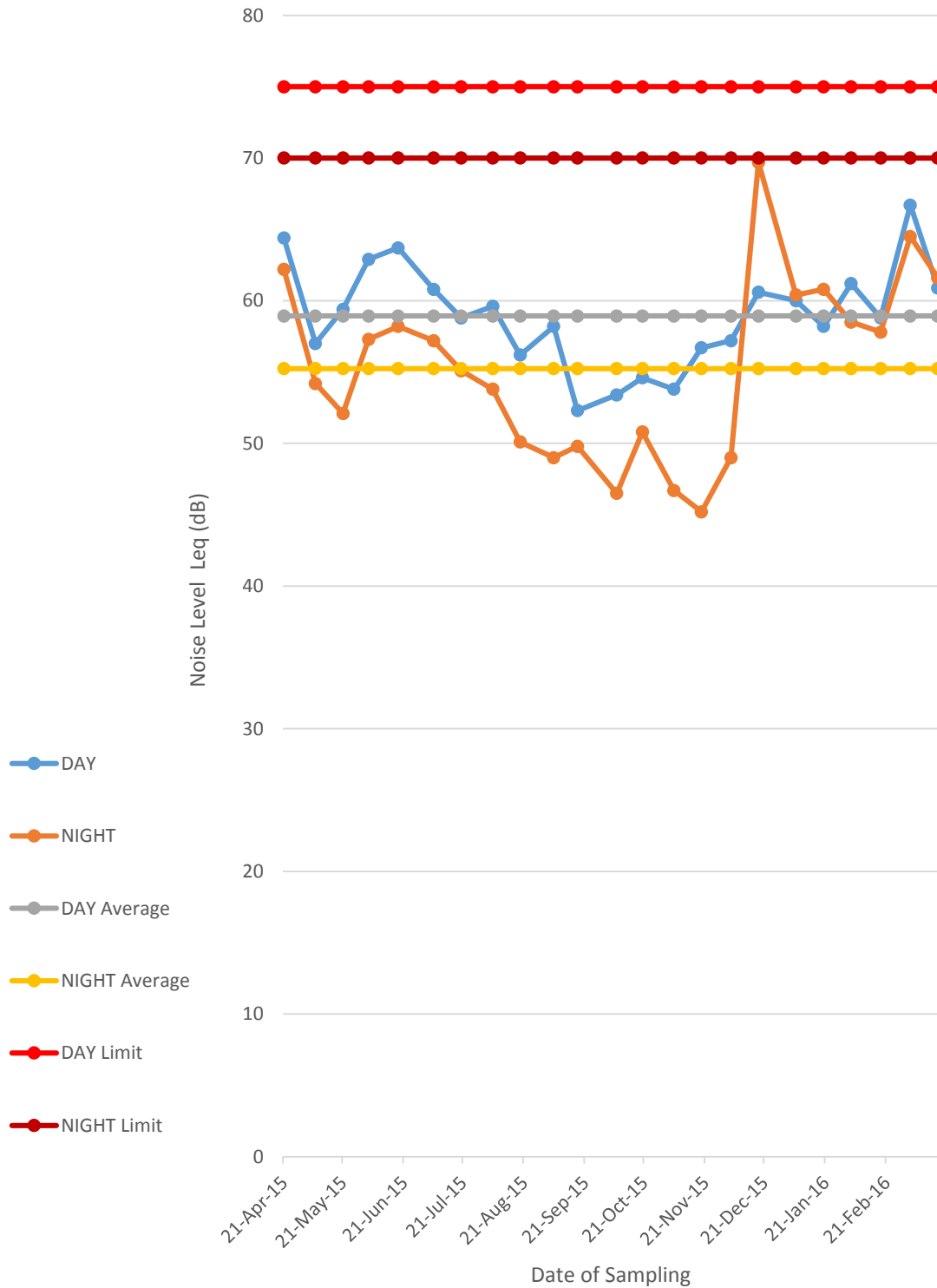


Project: Orient Area
Monitoring Station: Near Adarsh Nagar
Table 90

DATE OF SAMPLING	DAY	NIGHT
21-Apr-15	64.4	62.2
07-May-15	57	54.2
21-May-15	59.4	52.1
03-Jun-15	62.9	57.3
18-Jun-15	63.7	58.2
06-Jul-15	60.8	57.2
20-Jul-15	58.8	55.1
05-Aug-15	59.6	53.8
19-Aug-15	56.2	50.1
05-Sep-15	58.2	49
17-Sep-15	52.3	49.8
07-Oct-15	53.4	46.5
20-Oct-15	54.6	50.8
05-Nov-15	53.8	46.7
19-Nov-15	56.7	45.2
04-Dec-15	57.2	49
18-Dec-15	60.6	69.7
06-Jan-16	60	60.4
20-Jan-16	58.2	60.8
03-Feb-16	61.2	58.5
18-Feb-16	58.8	57.8
04-Mar-16	66.7	64.5
18-Mar-16	60.9	61.6
Brief Statistic	DAY	NIGHT
Maximum	66.70	69.70
Minimum	52.30	45.20
Average	58.93	55.24
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Near Adarsh Nagar



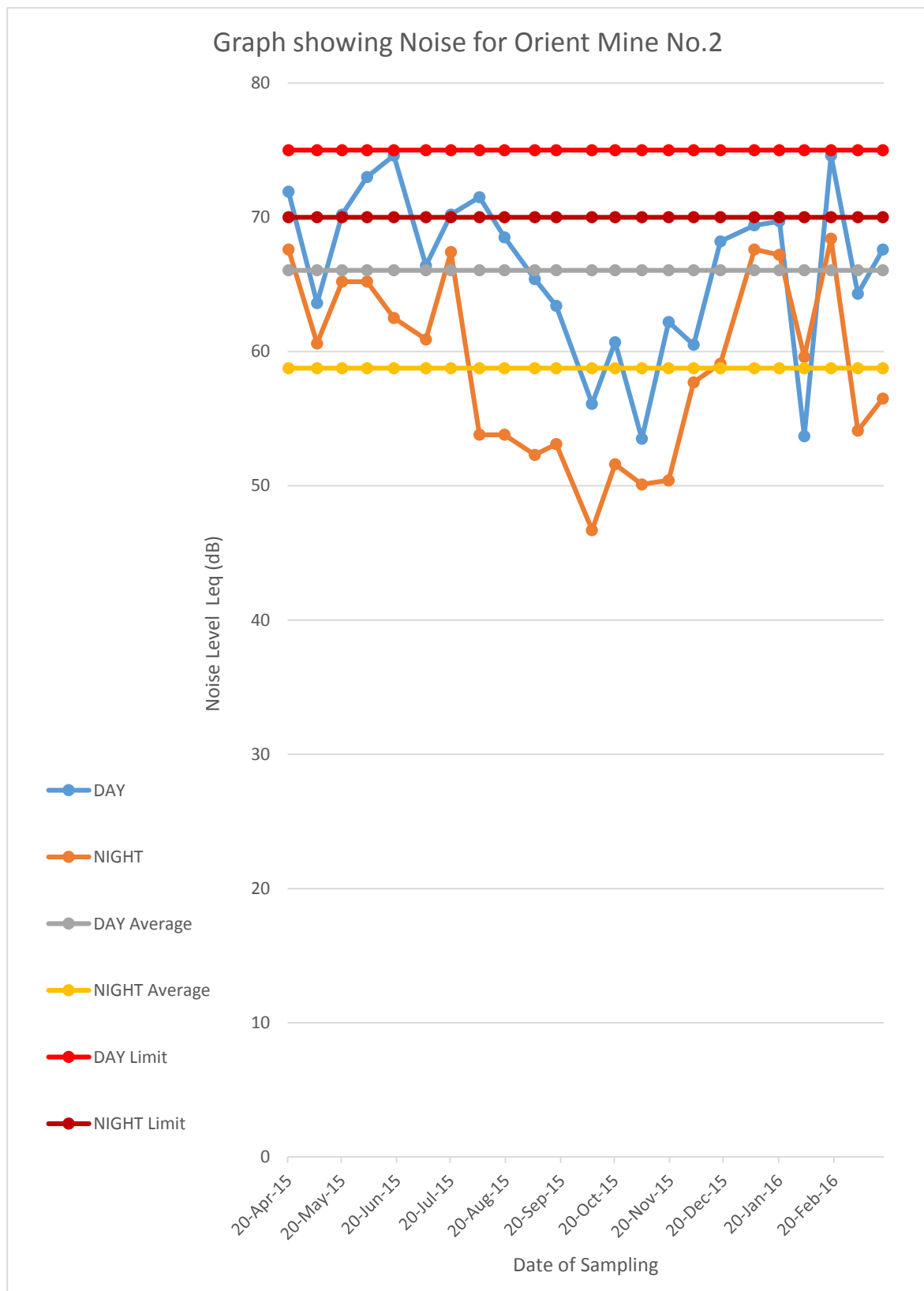
Project: Orient Area
Monitoring Station: Orient Mine No.2

Table 91

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	71.9	67.6
06-May-15	63.6	60.6
20-May-15	70.2	65.2
03-Jun-15	73	65.2
18-Jun-15	74.6	62.5
06-Jul-15	66.4	60.9
20-Jul-15	70.2	67.4
05-Aug-15	71.5	53.8
19-Aug-15	68.5	53.8
05-Sep-15	65.4	52.3
17-Sep-15	63.4	53.1
07-Oct-15	56.1	46.7
20-Oct-15	60.7	51.6
04-Nov-15	53.5	50.1
19-Nov-15	62.2	50.4
03-Dec-15	60.5	57.7
18-Dec-15	68.2	59.1
06-Jan-16	69.4	67.6
20-Jan-16	69.7	67.2
03-Feb-16	53.7	59.6
18-Feb-16	74.6	68.4
04-Mar-16	64.3	54.1
18-Mar-16	67.6	56.5
Brief Statistic	DAY	NIGHT
Maximum	74.60	68.40
Minimum	53.50	46.70
Average	66.05	58.76
Noise Standard	75	70

All values are in Leq (dB)

Graph showing Noise for Orient Mine No.2



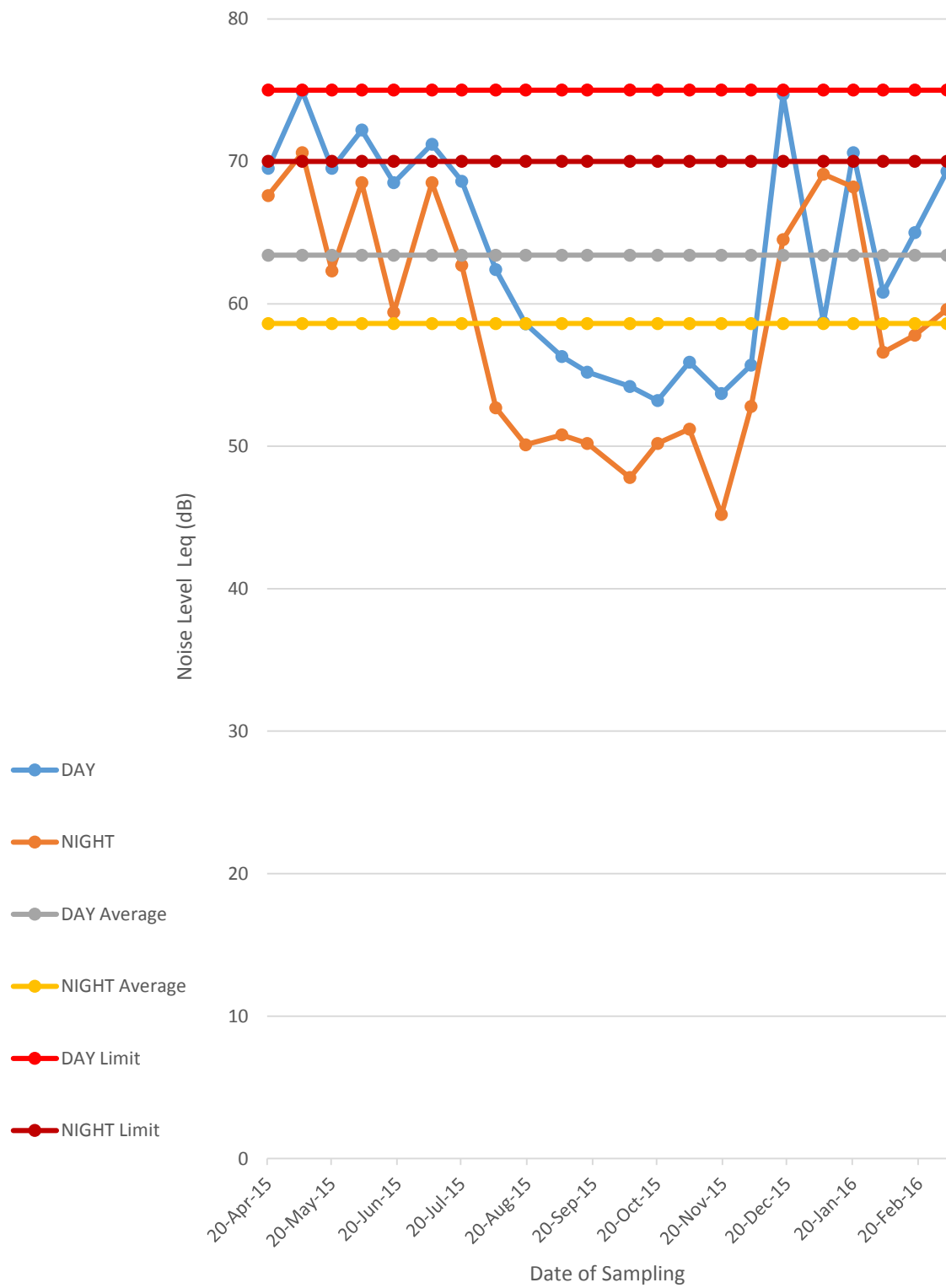
Project: Orient Area
Monitoring Station: Orient Mine No.3

Table 92

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	69.5	67.6
06-May-15	74.9	70.6
20-May-15	69.5	62.3
03-Jun-15	72.2	68.5
18-Jun-15	68.5	59.4
06-Jul-15	71.2	68.5
20-Jul-15	68.6	62.7
05-Aug-15	62.4	52.7
19-Aug-15	58.6	50.1
05-Sep-15	56.3	50.8
17-Sep-15	55.2	50.2
07-Oct-15	54.2	47.8
20-Oct-15	53.2	50.2
04-Nov-15	55.9	51.2
19-Nov-15	53.7	45.2
03-Dec-15	55.7	52.8
18-Dec-15	74.7	64.5
06-Jan-16	58.7	69.1
20-Jan-16	70.6	68.2
03-Feb-16	60.8	56.6
18-Feb-16	65	57.8
04-Mar-16	69.3	59.6
18-Mar-16	59.8	61.7
Brief Statistic	DAY	NIGHT
Maximum	74.90	70.60
Minimum	53.20	45.20
Average	63.41	58.61
Noise Standard	75	70

All values are in Leq (dB)

Graph Showing Noise for Mine No. 3



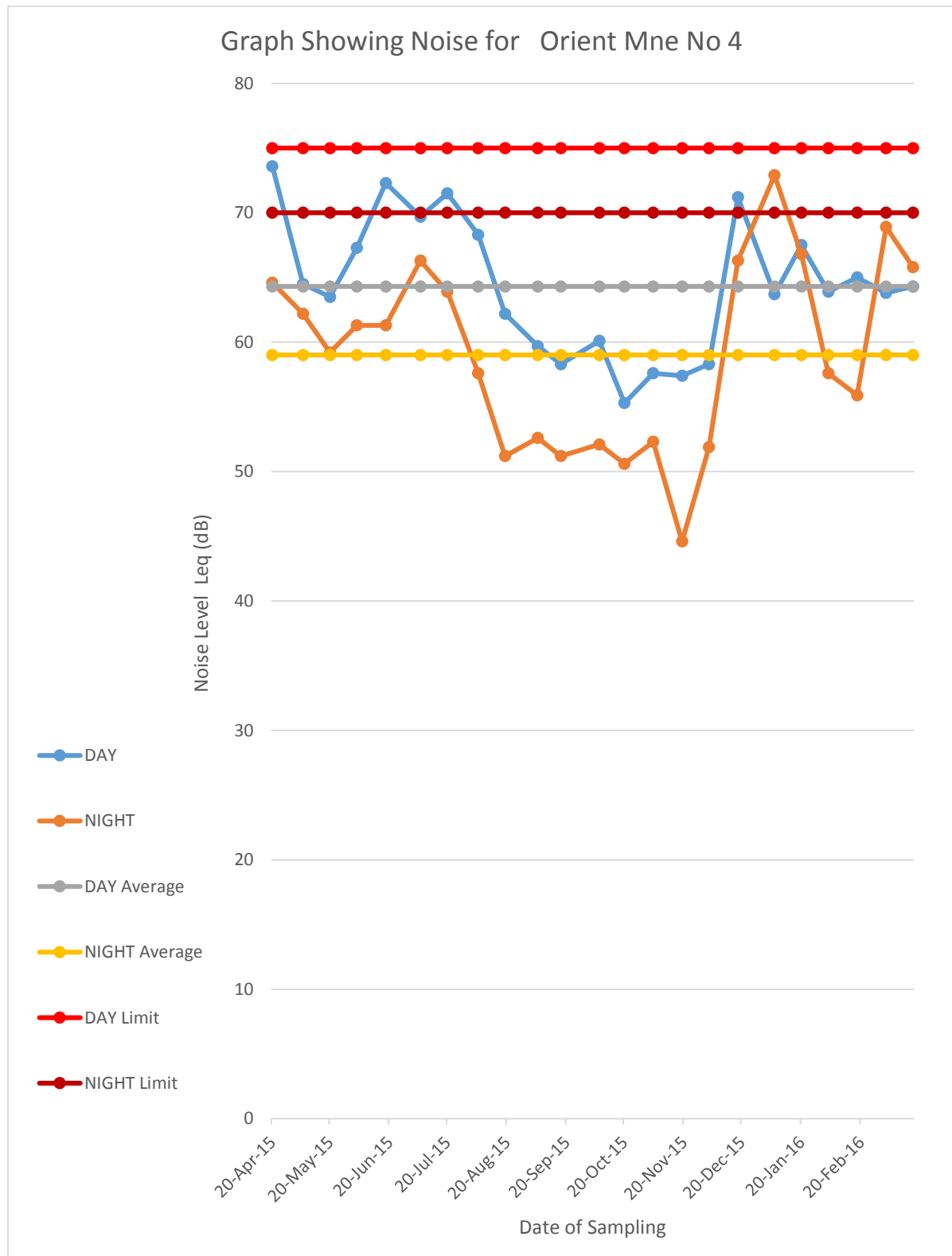
Project: Orient Area
Monitoring Station: Orient Mine No.4

Table 93

DATE OF SAMPLING	DAY	NIGHT
20-Apr-15	73.6	64.6
06-May-15	64.5	62.2
20-May-15	63.5	59.2
03-Jun-15	67.3	61.3
18-Jun-15	72.3	61.3
06-Jul-15	69.7	66.3
20-Jul-15	71.5	63.9
05-Aug-15	68.3	57.6
19-Aug-15	62.2	51.2
05-Sep-15	59.7	52.6
17-Sep-15	58.3	51.2
07-Oct-15	60.1	52.1
20-Oct-15	55.3	50.6
04-Nov-15	57.6	52.3
19-Nov-15	57.4	44.6
03-Dec-15	58.3	51.9
18-Dec-15	71.2	66.3
06-Jan-16	63.7	72.9
20-Jan-16	67.5	66.8
03-Feb-16	63.9	57.6
18-Feb-16	65	55.9
04-Mar-16	63.8	68.9
18-Mar-16	64.3	65.8
Brief Statistic	DAY	NIGHT
Maximum	73.60	72.90
Minimum	55.30	44.60
Average	64.30	59.00
Noise Standard	75	70

All values are in Leq (dB)

Graph Showing Noise for Orient Mne No 4



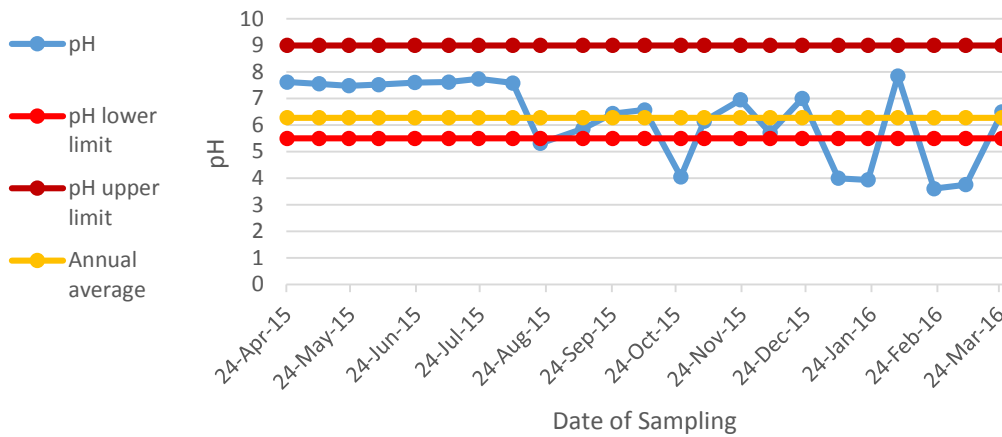
TABLES FOR EFFLUENT WATER QUALITY DATA

Project: Samleswari OCP
Monitoring Station: O&G Trap outlet
Table 94

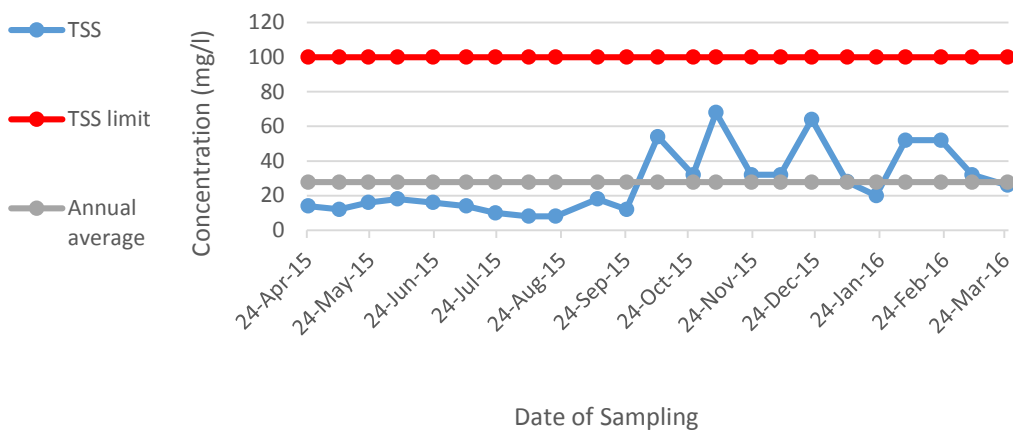
Date of Sampling	pH	Oil & Grease	TSS	COD
24-Apr-15	7.62	<4.0	14	20
09-May-15	7.55	<4.0	12	16
23-May-15	7.48	<4.0	16	20
06-Jun-15	7.52	<4.0	18	20
23-Jun-15	7.6	<4.0	16	24
09-Jul-15	7.62	<4.0	14	32
23-Jul-15	7.74	<4.0	10	16
08-Aug-15	7.58	<4.0	8	16
21-Aug-15	5.31	<4.0	8	12
10-Sep-15	5.86	<4.0	18	28
24-Sep-15	6.43	<4.0	12	16
09-Oct-15	6.57	<4.0	54	64
26-Oct-15	4.05	<4.0	32	64
06-Nov-15	6.15	<4.0	68	96
23-Nov-15	6.95	<4.0	32	20
07-Dec-15	5.71	<4.0	32	20
22-Dec-15	7	<4.0	64	48
08-Jan-16	4	<4.0	28	16
22-Jan-16	3.94	<4.0	20	16
05-Feb-16	7.85	<4.0	52	36
22-Feb-16	3.61	<4.0	52	68
08-Mar-16	3.76	<4.0	32	20
25-Mar-16	6.49	<4.0	26	20

All values are in mg/L except pH

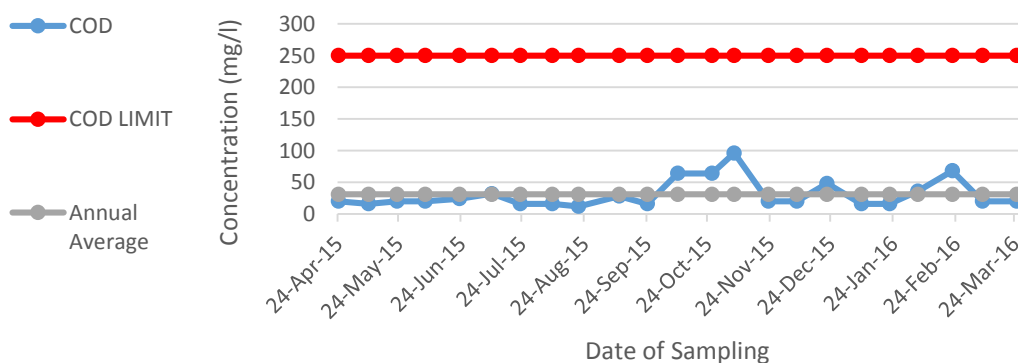
Graph showing pH for O & G Trap Outlet



Graph showing TSS for O & G Trap Outlet



Graph showing COD for O & G Trap Outlet



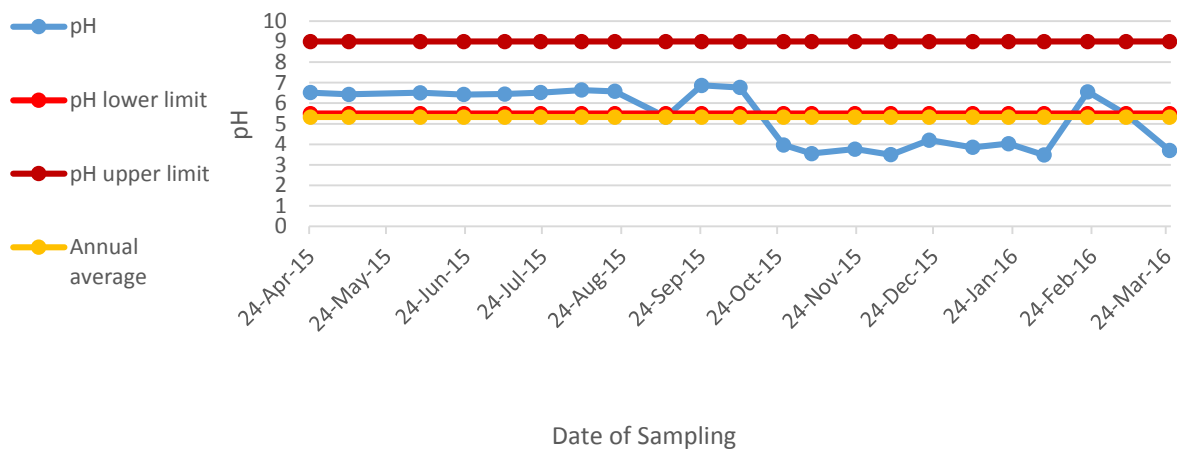
Project: Samleswari OCP
Monitoring Station: Outlet from Sedimentation Tank (MDTP)

Table 95

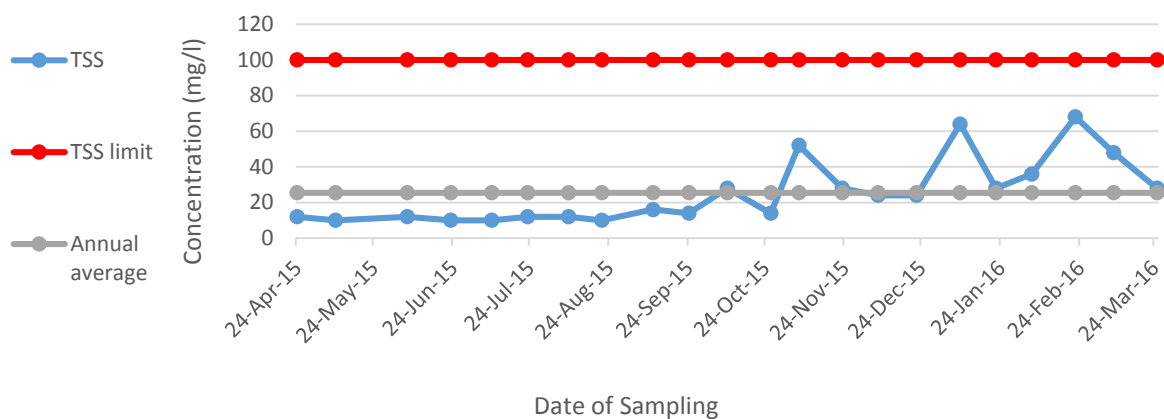
Date of Sampling	pH	Oil & Grease	TSS	COD
24-Apr-15	6.52	<4.0	12	16
09-May-15	6.43	<4.0	10	12
06-Jun-15	6.51	<4.0	12	18
23-Jun-15	6.42	<4.0	10	16
09-Jul-15	6.45	<4.0	10	20
23-Jul-15	6.52	<4.0	12	24
08-Aug-15	6.64	<4.0	12	24
21-Aug-15	6.58	<4.0	10	16
10-Sep-15	5.33	<4.0	16	24
24-Sep-15	6.87	<4.0	14	20
09-Oct-15	6.77	<4.0	28	32
26-Oct-15	3.97	<4.0	14	32
06-Nov-15	3.55	<4.0	52	32
23-Nov-15	3.77	<4.0	28	16
07-Dec-15	3.49	<4.0	24	16
22-Dec-15	4.2	<4.0	24	28
08-Jan-16	3.85	<4.0	64	48
22-Jan-16	4.03	<4.0	28	16
05-Feb-16	3.48	<4.0	36	24
22-Feb-16	6.56	<4.0	68	72
08-Mar-16	5.45	<4.0	48	32
25-Mar-16	3.7	<4.0	28	16

All values are in mg/L except pH

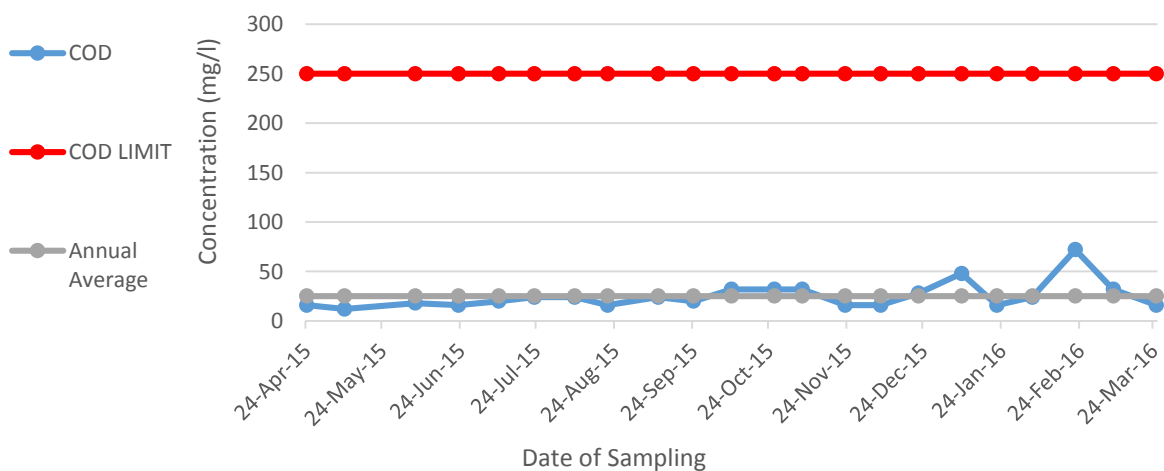
Graph showing pH for Outlet from Sedimentation Tank (MDTP)



Graph showing TSS for Outlet from Sedimentation Tank (MDTP)

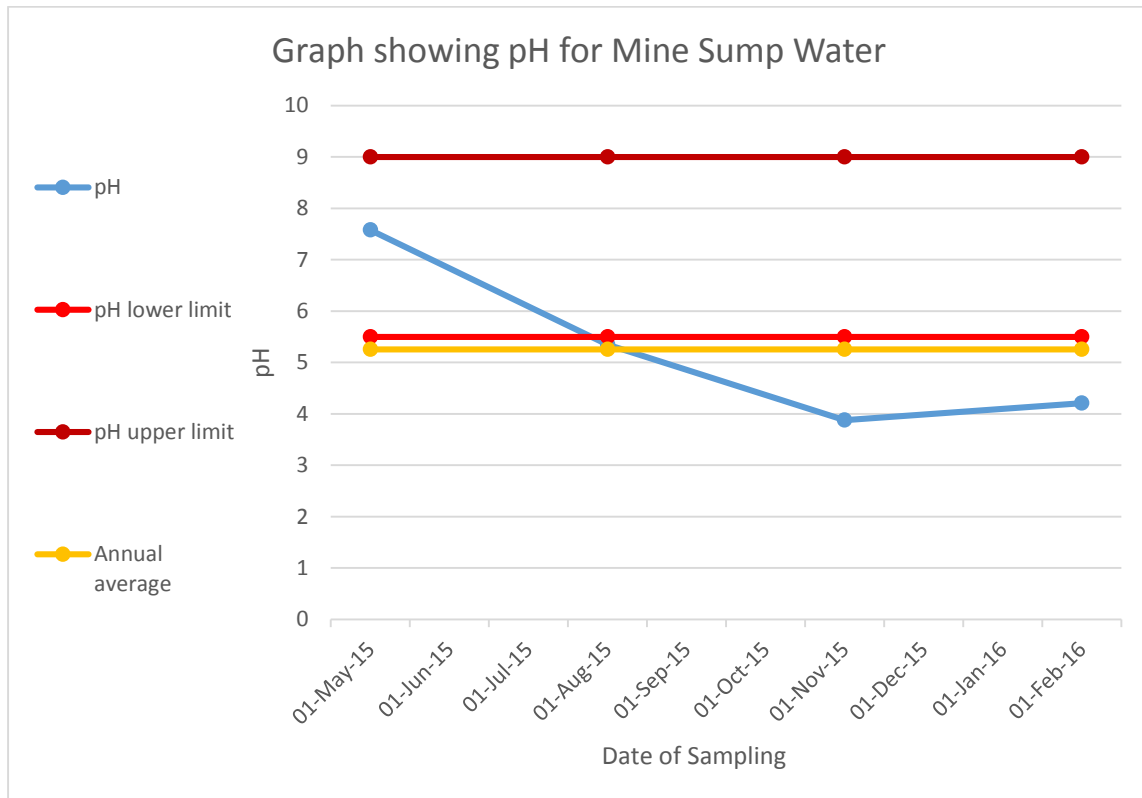


Graph showing COD for Outlet from Sedimentation Tank (MDTP)



Project: Samleswari OCP
Monitoring Station: Mine Sump Water
Table 96

Date of Sampling	pH
08-Aug-15	5.35
05-Feb-16	4.21
09-May-15	7.58
06-Nov-15	3.88

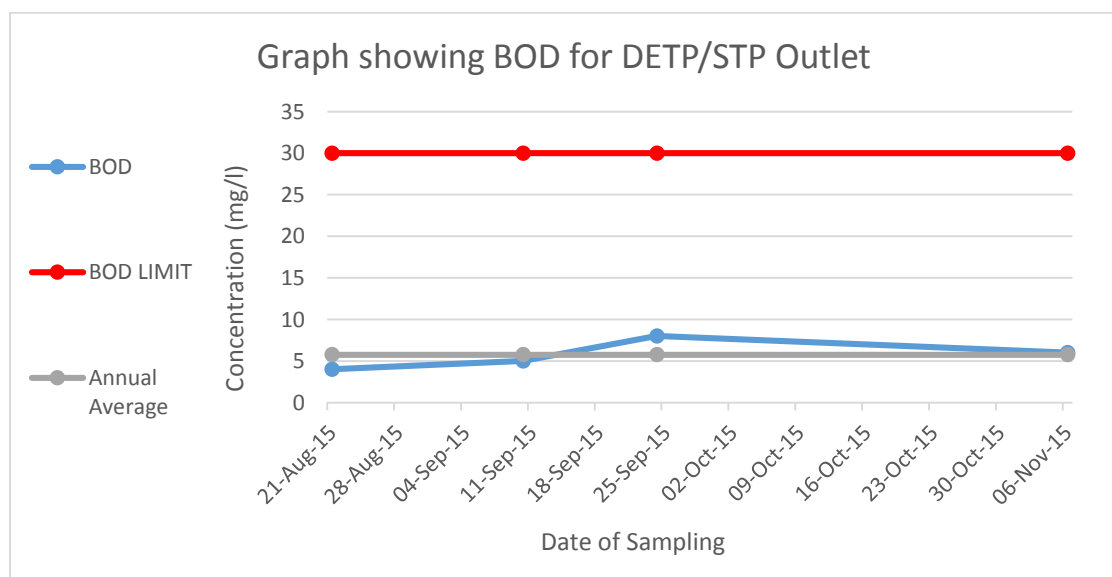
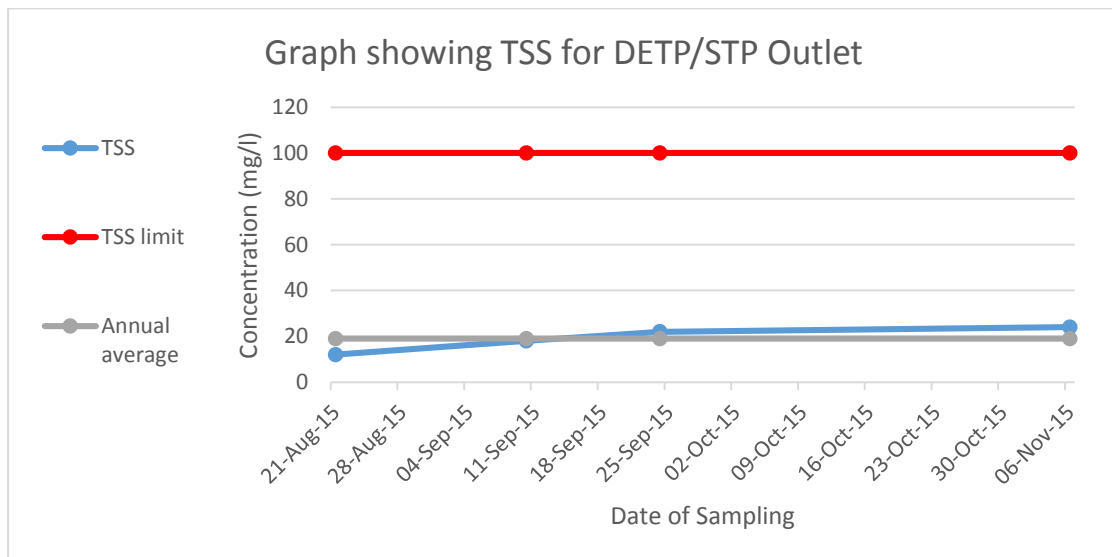
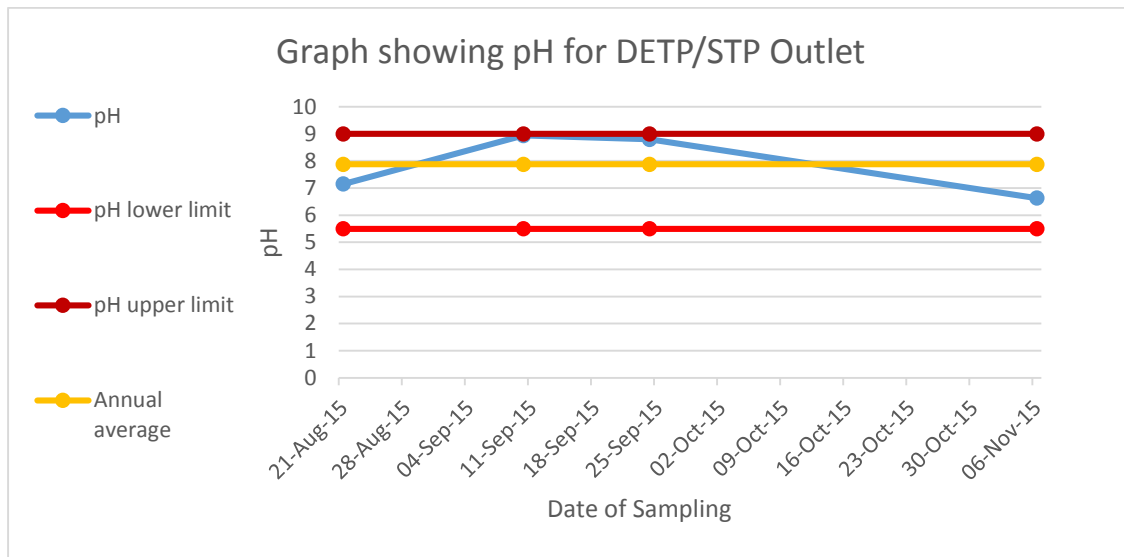


Project: Samleswari OCP
Monitoring Station: DETP / STP Outlet

Table 97

Date of Sampling	pH	TSS	BOD
21-Aug-15	7.15	12	4
10-Sep-15	8.94	18	5
24-Sep-15	8.8	22	8
06-Nov-15	6.63	24	6

All values are in mg/L except pH



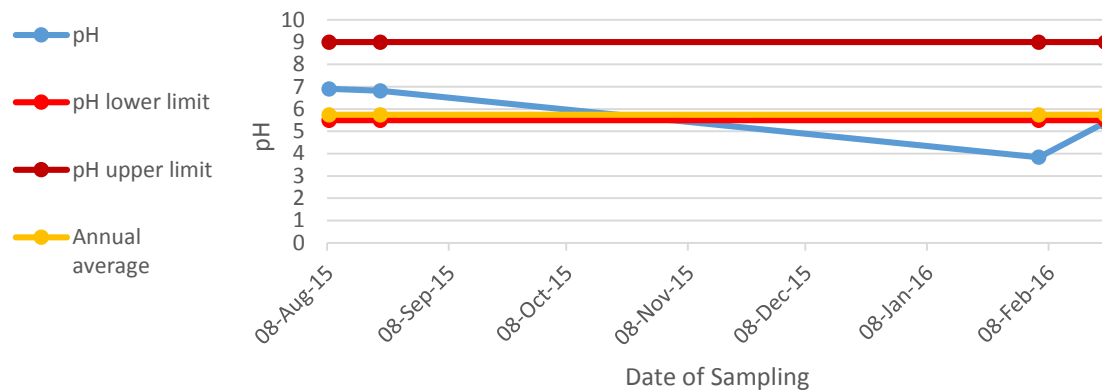
Project: Samleswari OCP
Monitoring Station: 50m before the point of confluence of natural drain of mine pumped water to pandren nala

Table 98

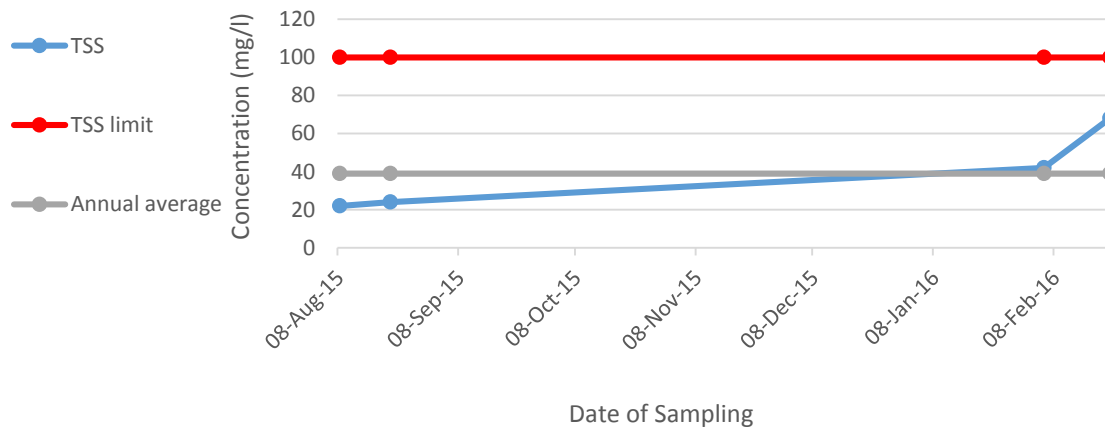
Date of Sampling	pH	Oil & Grease	TSS	COD
08-Aug-15	6.9	<4.0	22	24
21-Aug-15	6.82	<4.0	24	36
22-Feb-16	5.4	<4.0	68	96
05-Feb-16	3.84	<4.0	42	28

All values are in mg/L except pH

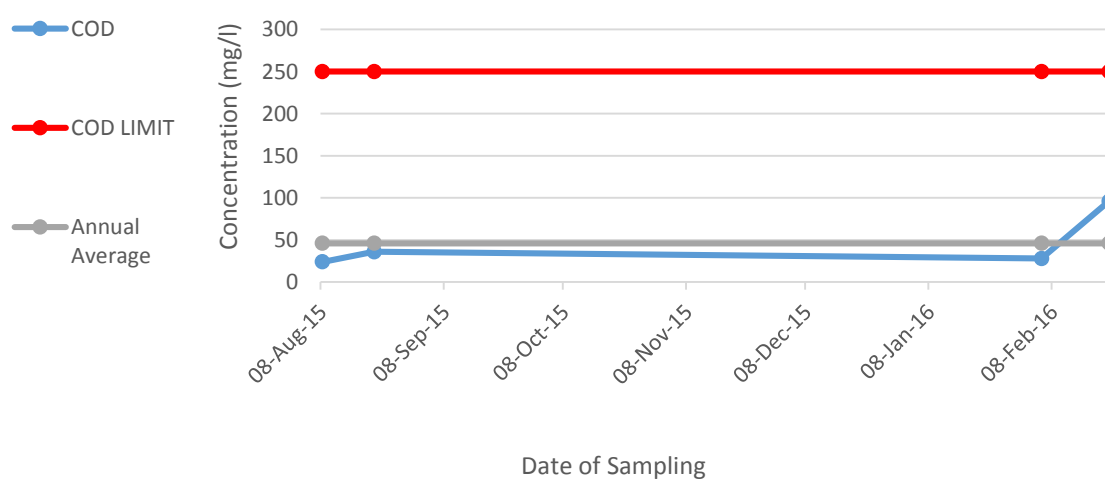
Graph showing pH for 50m before the point of confluence of natural drain of mine pumped water to Pandren nala



Graph showing TSS for 50m before the point of confluence of natural drain of mine pumped water to Pandren nala



Graph showing COD for 50m before the point of confluence of natural drain of mine pumped water to Pandren nala



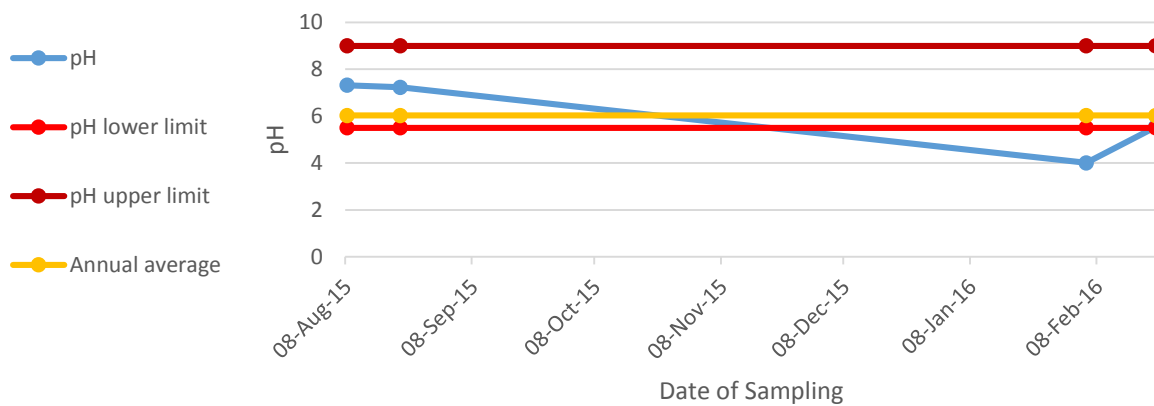
Project: Samleswari OCP
Monitoring Station: 100m u/s of point of confluence of natrual mine water
drain to pandren nala

Table 99

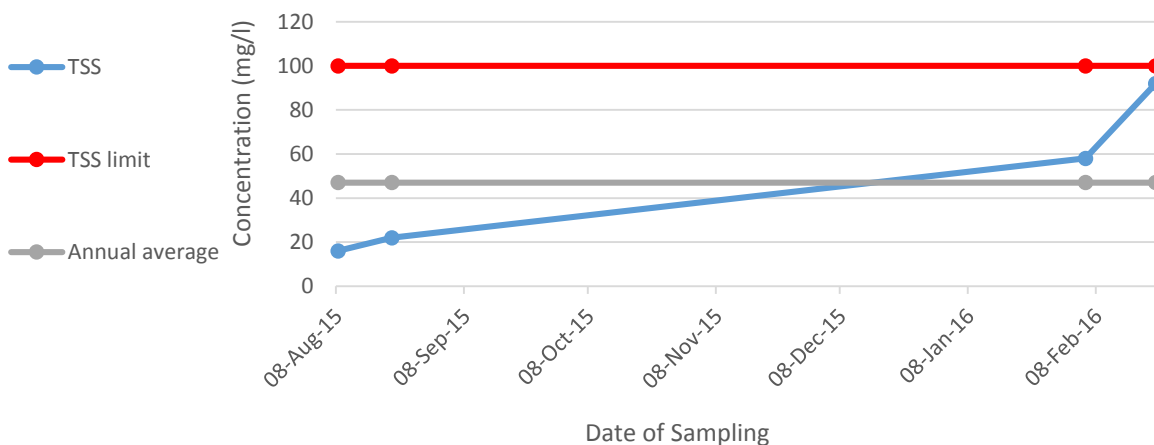
Date of Sampling	pH	Oil & Grease	TSS	COD
08-Aug-15	7.32	<4.0	16	32
21-Aug-15	7.23	<4.0	22	32
22-Feb-16	5.54	<4.0	92	104
05-Feb-16	4.01	<4.0	58	40

All values are in mg/L except pH

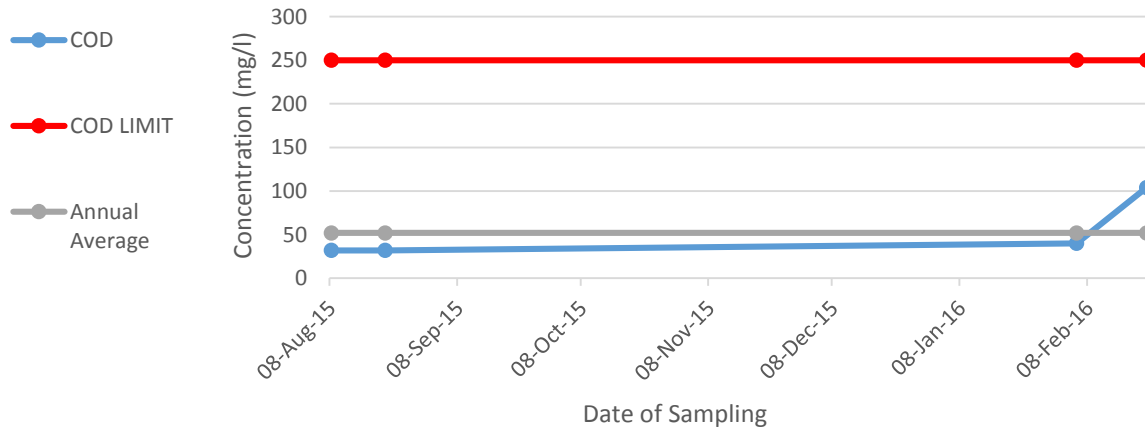
Graph showing pH for 100m u/s of point of confluence of natural mine water drain to Pandren nala



Graph showing TSS for 100m u/s of point of confluence of natural mine water drain to Pandren nala



Graph showing COD for 100m u/s of point of confluence of natural mine water drain to Pandren nala



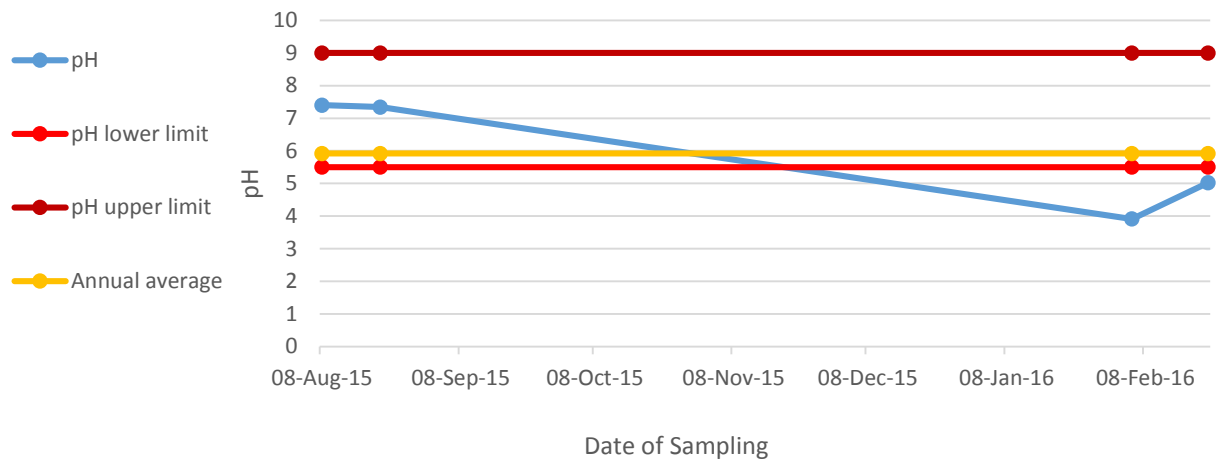
Project: Samleswari OCP
Monitoring Station: 100m d/s of point of confluence of natrual mine water
drain to Nala flowing on North side

Table 100

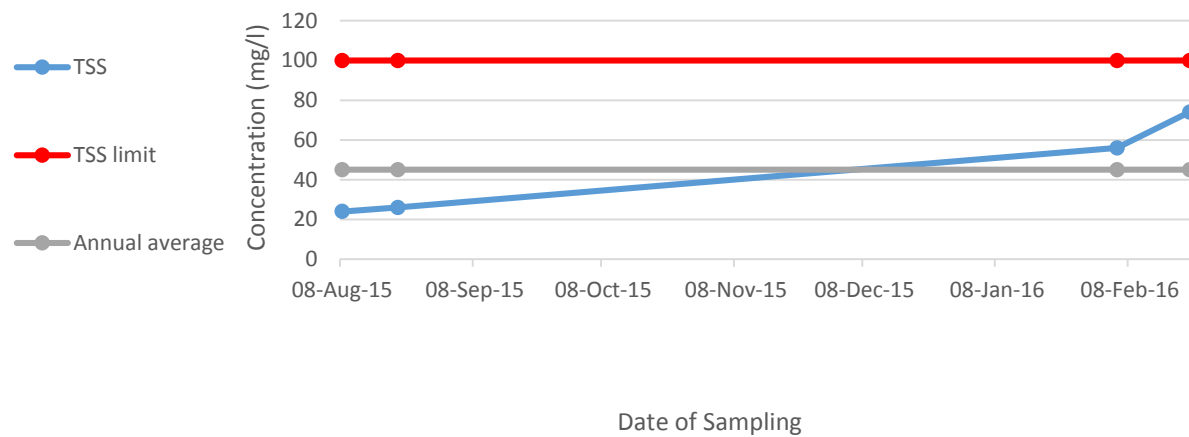
Date of Sampling	pH	Oil & Grease	TSS	COD
21-Aug-15	7.34	<4.0	26	40
22-Feb-16	5.02	<4.0	74	60
08-Aug-15	7.4	<4.0	24	28
05-Feb-16	3.91	<4.0	56	42

All values are in mg/L except pH

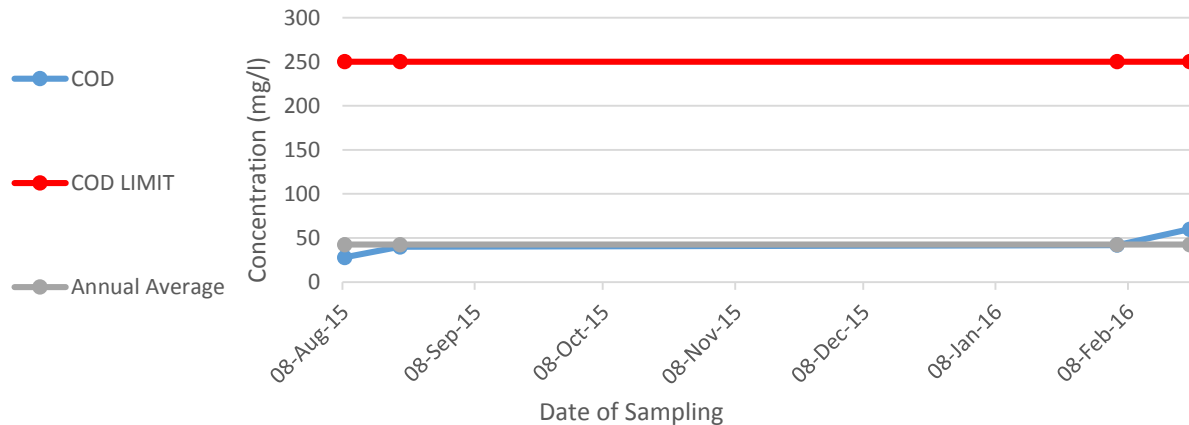
Graph showing pH for 100m d/s of point of confluence of natural mine water drain to nala flowing on North side



Graph showing TSS for 100m d/s of point of confluence of natural mine water drain to nala flowing on North side



Graph showing COD for 100m d/s of point of confluence of natural mine water drain to nala flowing on North side



Project: Samleswari OCP
Monitoring Station: Outlet from sedimentation Tank (MDTP)

Table 101

Area	Ib-Valley	MoEF-Sch-VI Standards
Date	09.11.15	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.7	
Nitrate Nitrogen	2.2	10
Ammonia Nitrogen	0.28	50
Total Kjeldhal Nitrogen	1.32	100
BOD	10	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.16	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.22	2
Dis. PO ₄	0.16	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.12	3

All values are in mg/L except pH

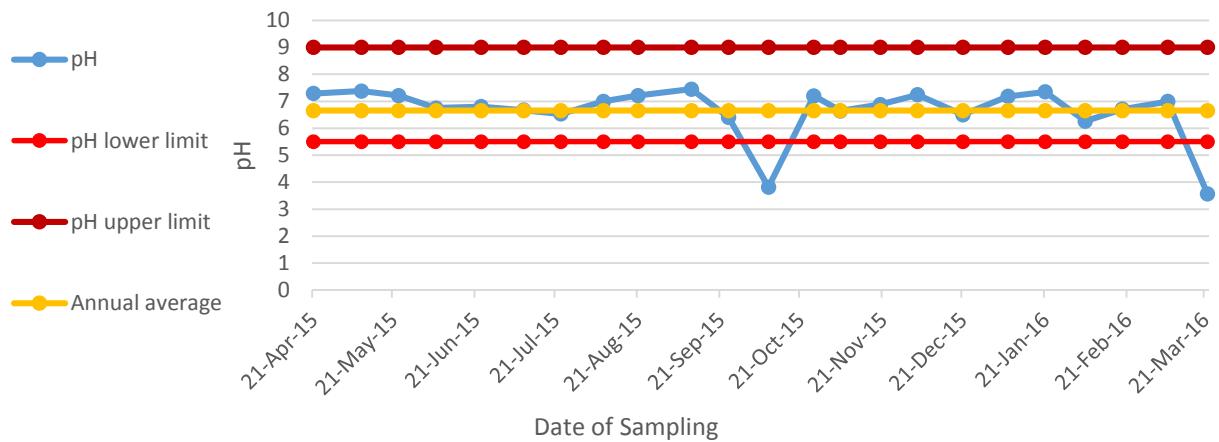
Project: Lajkura OCP
Monitoring Station: 100m d/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side

Table 102

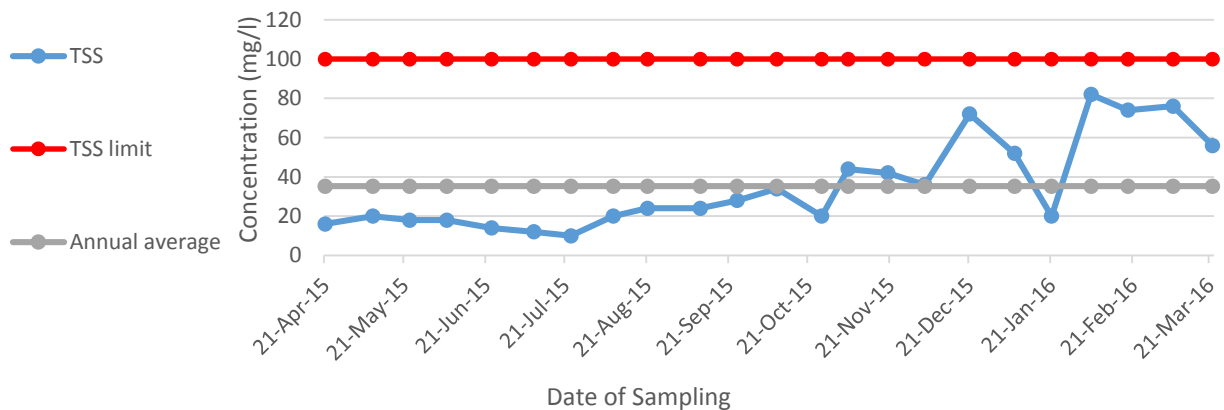
Date of Sampling	pH	Oil & Grease	TSS	COD
21-Apr-15	7.29	<4.0	16	24
09-May-15	7.38	<4.0	20	32
23-May-15	7.21	<4.0	18	26
06-Jun-15	6.75	<4.0	18	16
23-Jun-15	6.8	<2.0	14	12
09-Jul-15	6.67	<4.0	12	24
23-Jul-15	6.53	<2.0	10	20
08-Aug-15	7	<4.0	20	36
21-Aug-15	7.21	<2.0	24	40
10-Sep-15	7.45	<4.0	24	32
24-Sep-15	6.4	<4.0	28	36
09-Oct-15	3.82	<4.0	34	32
26-Oct-15	7.2	<4.0	20	32
05-Nov-15	6.64	<4.0	44	32
20-Nov-15	6.88	<4.0	42	28
04-Dec-15	7.24	<4.0	36	16
21-Dec-15	6.5	<4.0	72	60
07-Jan-16	7.18	<4.0	52	40
21-Jan-16	7.35	<4.0	20	12
05-Feb-16	6.26	<4.0	82	48
19-Feb-16	6.71	<4.0	74	68
07-Mar-16	6.99	<4.0	76	48
22-Mar-16	3.56	<4.0	56	42

All values are in mg/L except pH

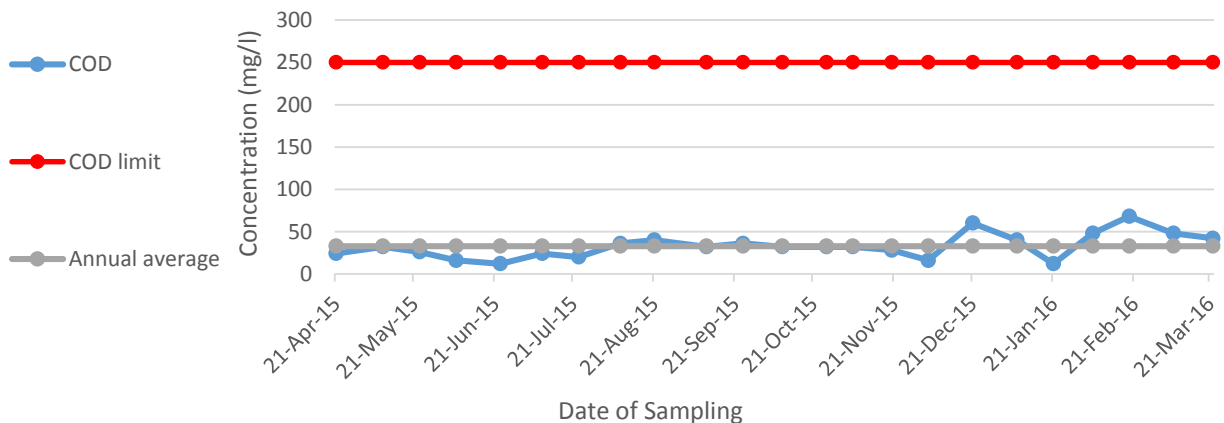
Graph showing pH for 100m d/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



Graph showing TSS for 100m d/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



Graph showing COD for 100m d/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



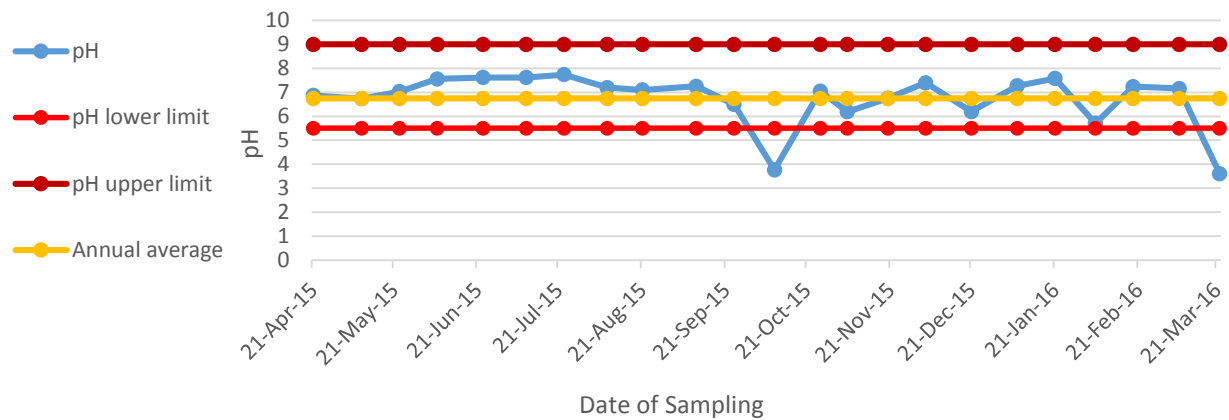
Project: Lajkura OCP
Monitoring Station: 100m u/s of point of confluence of natural mine water drain to Baghmara Nala flowing on North side

Table 103

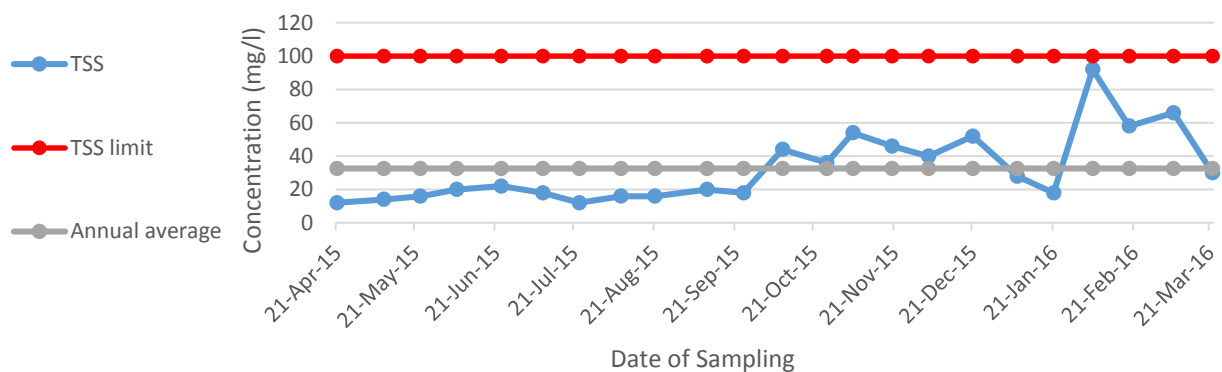
Date of Sampling	pH	Oil & Grease	TSS	COD
21-Apr-15	6.87	<4.0	12	16
09-May-15	6.74	<4.0	14	20
23-May-15	7.03	<4.0	16	25
06-Jun-15	7.56	<4.0	20	20
23-Jun-15	7.62	<4.0	22	16
09-Jul-15	7.62	<4.0	18	14
23-Jul-15	7.74	<4.0	12	28
08-Aug-15	7.2	<4.0	16	28
21-Aug-15	7.1	<4.0	16	32
10-Sep-15	7.25	<4.0	20	24
24-Sep-15	6.5	<4.0	18	24
09-Oct-15	3.77	<4.0	44	32
26-Oct-15	7.05	<4.0	36	32
05-Nov-15	6.19	<4.0	54	36
20-Nov-15	6.75	<4.0	46	36
04-Dec-15	7.4	<4.0	40	28
21-Dec-15	6.2	<4.0	52	68
07-Jan-16	7.27	<4.0	28	16
21-Jan-16	7.58	<4.0	18	12
05-Feb-16	5.71	<4.0	92	72
19-Feb-16	7.24	<4.0	58	48
07-Mar-16	7.16	<4.0	66	36
22-Mar-16	3.61	<4.0	30	20

All values are in mg/L except pH

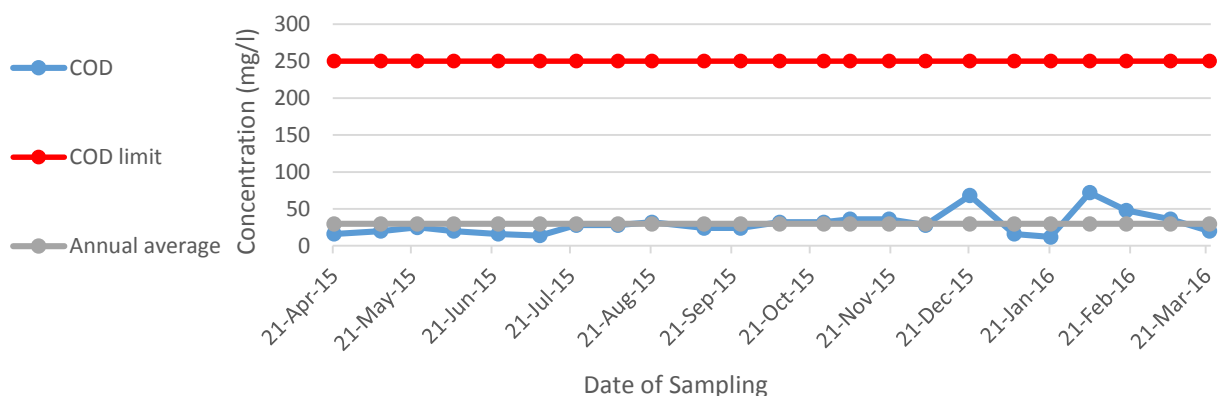
Graph showing pH for 100m u/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



Graph showing TSS for 100m u/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



Graph showing COD for 100m u/s of point of confluence of natural mine water drain to Baghmara nala flowing on North side



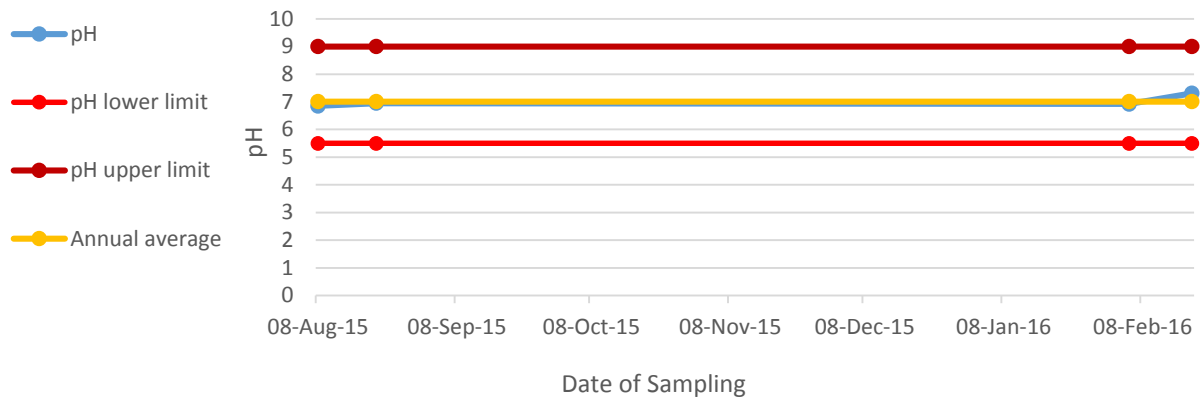
Project: Lajkura OCP
Monitoring Station: 50m before the point of confluence of natural mine
pumped water to Baghmara Nala flowing on North side

Table 104

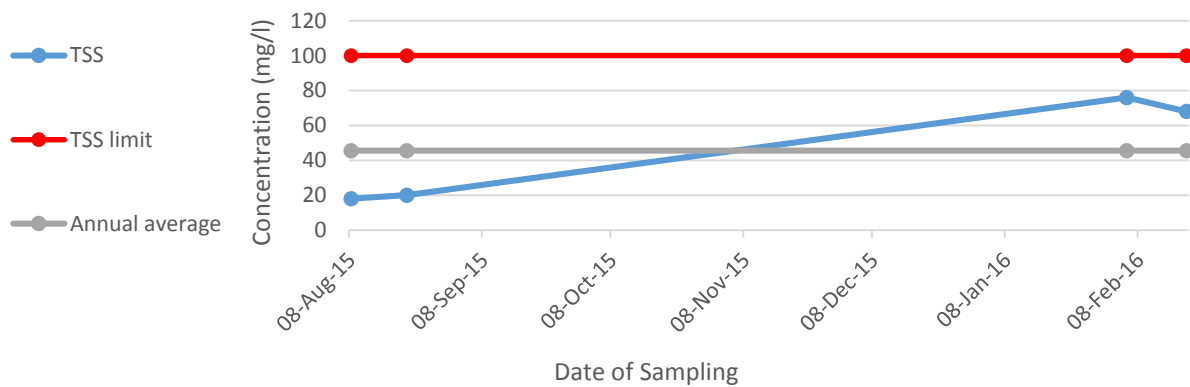
Date of Sampling	pH	Oil & Grease	TSS	COD
08-Aug-15	6.85	<4.0	18	32
21-Aug-15	6.95	<4.0	20	36
05-Feb-16	6.92	<4.0	76	48
19-Feb-16	7.31	<4.0	68	44

All values are in mg/L except pH

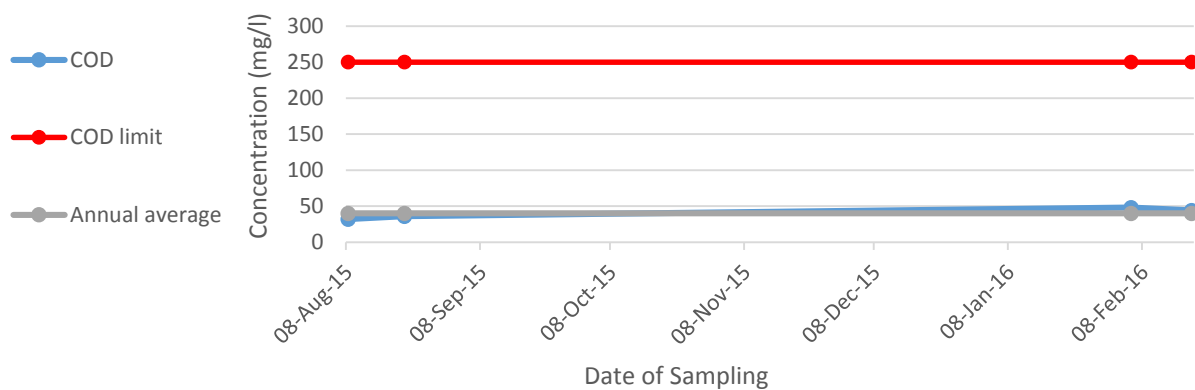
Graph showing pH for 50m before the point of confluence of natural mine pumped water to Baghmara nala flowing on North side



Graph showing TSS for 50m before the point of confluence of natural mine pumped water to Baghmara nala flowing on North side



Graph showing COD for 50m before the point of confluence of natural mine pumped water to Baghmara nala flowing on North side

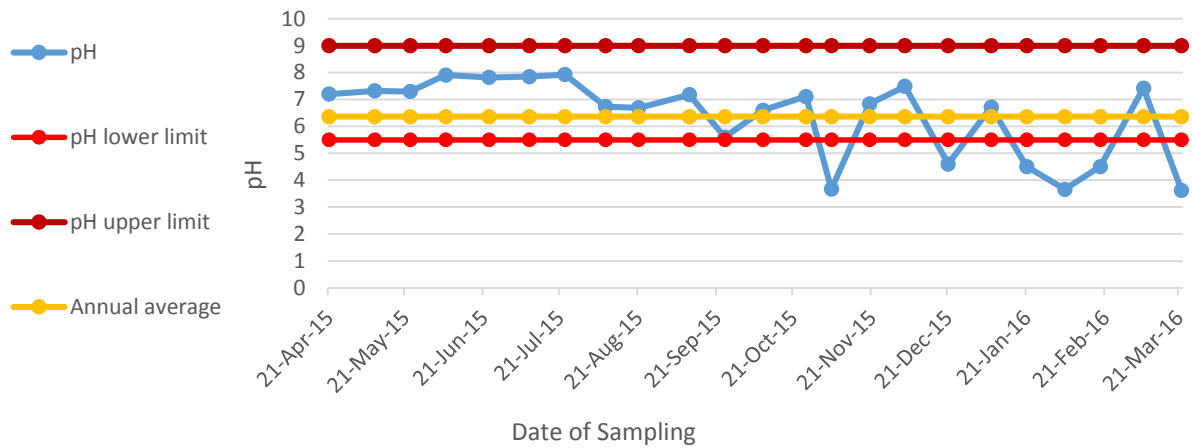


Project: Lajkura OCP
Monitoring Station: Mine Discharge Water
Table 105

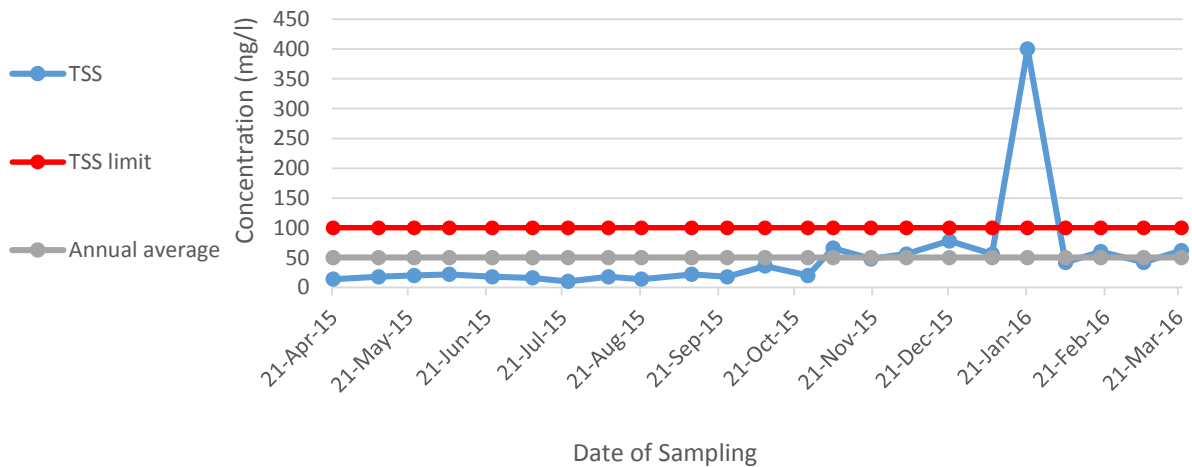
Date of Sampling	pH	Oil & Grease	TSS	COD
21-Apr-15	7.2	<4.0	14	20
09-May-15	7.32	<4.0	18	28
23-May-15	7.3	<4.0	20	32
06-Jun-15	7.91	<4.0	22	28
23-Jun-15	7.82	<4.0	18	20
09-Jul-15	7.85	<4.0	16	36
23-Jul-15	7.93	<4.0	10	24
08-Aug-15	6.74	<4.0	18	36
21-Aug-15	6.69	<4.0	14	20
10-Sep-15	7.18	<4.0	22	32
24-Sep-15	5.6	<4.0	18	28
09-Oct-15	6.6	<4.0	36	32
26-Oct-15	7.11	<4.0	20	32
05-Nov-15	3.67	<4.0	66	36
20-Nov-15	6.84	<4.0	48	64
04-Dec-15	7.49	<4.0	56	24
21-Dec-15	4.6	<4.0	78	60
07-Jan-16	6.72	<4.0	56	48
21-Jan-16	4.51	<4.0	400	320
05-Feb-16	3.66	<4.0	42	28
19-Feb-16	4.51	<4.0	60	56
07-Mar-16	7.42	<4.0	42	24
22-Mar-16	3.62	<4.0	62	26

All values are in mg/L except pH

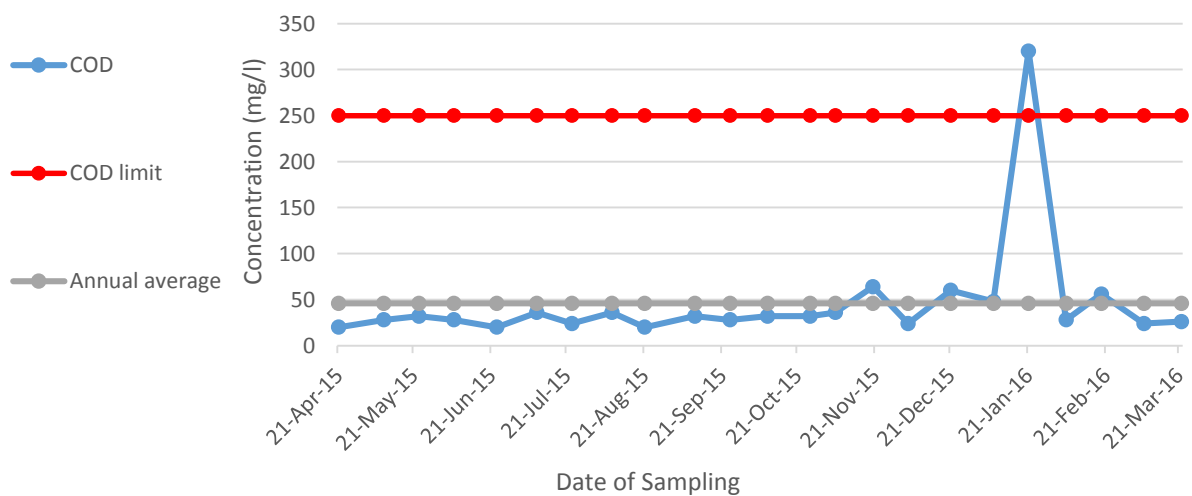
Graph showing pH for Mine Discharge water



Graph showing TSS for Mine Discharge water



Graph showing COD for Mine Discharge water

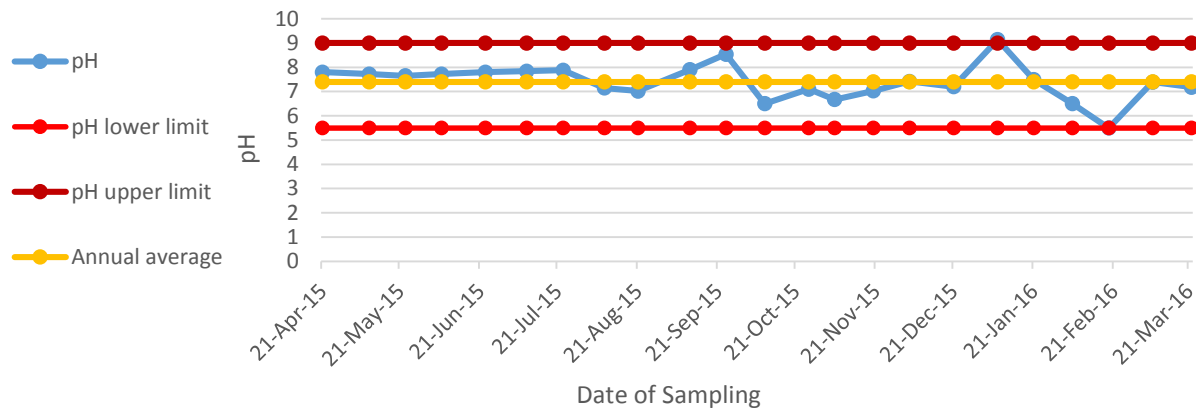


Project: Lajkura OCP
Monitoring Station: O&G Trap outlet
Table 106

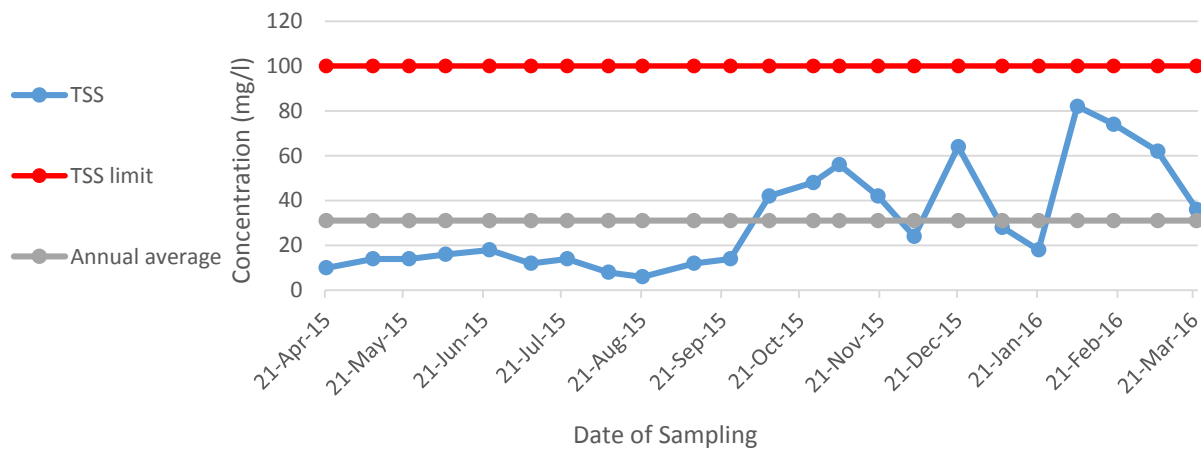
Date of Sampling	pH	Oil & Grease	TSS	COD
21-Apr-15	7.8	<4.0	10	12
09-May-15	7.72	<4.0	14	20
23-May-15	7.65	<4.0	14	16
06-Jun-15	7.72	<4.0	16	16
23-Jun-15	7.8	<4.0	18	20
09-Jul-15	7.84	<4.0	12	28
23-Jul-15	7.88	<4.0	14	32
08-Aug-15	7.15	<4.0	8	20
21-Aug-15	7.02	<4.0	6	16
10-Sep-15	7.9	<4.0	12	24
24-Sep-15	8.54	<4.0	14	18
09-Oct-15	6.5	<4.0	42	64
26-Oct-15	7.1	<4.0	48	64
05-Nov-15	6.67	<4.0	56	64
20-Nov-15	7.03	<4.0	42	48
04-Dec-15	7.42	<4.0	24	12
21-Dec-15	7.2	<4.0	64	52
07-Jan-16	9.14	<4.0	28	20
21-Jan-16	7.49	<4.0	18	12
05-Feb-16	6.5	<4.0	82	52
19-Feb-16	5.5	<4.0	74	52
07-Mar-16	7.39	<4.0	62	52
22-Mar-16	7.18	<4.0	36	24

All values are in mg/L except pH

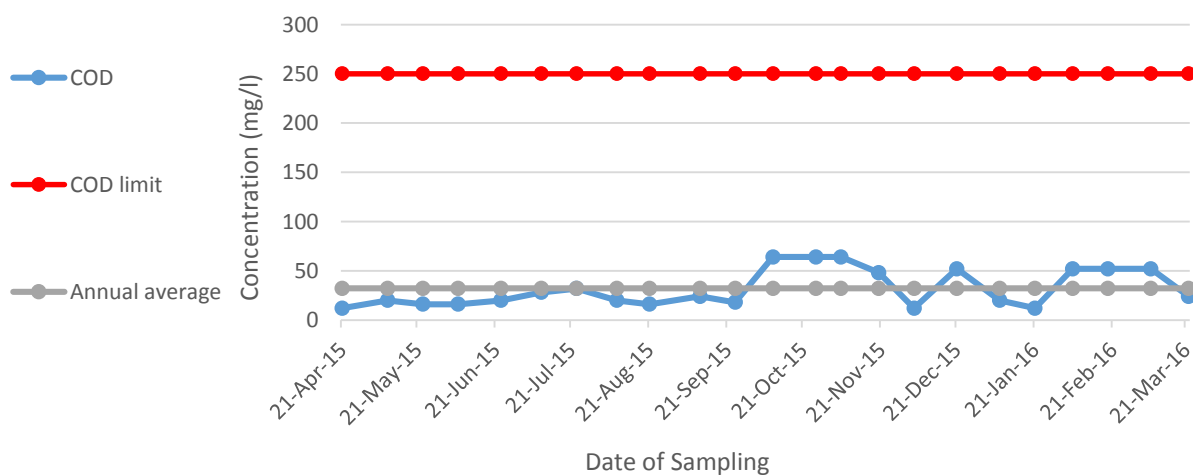
Graph showing pH for O & G Trap Outlet



Graph showing TSS for O & G Trap Outlet

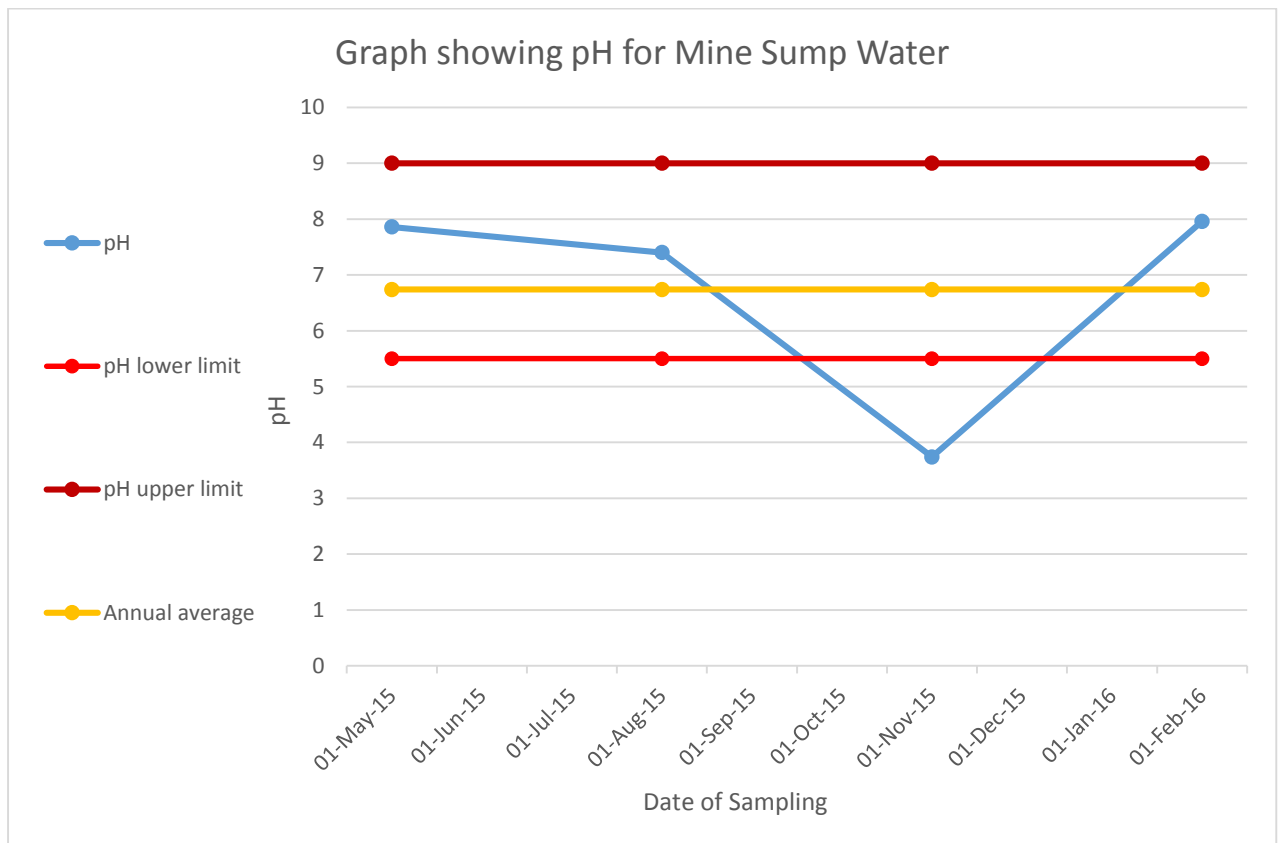


Graph showing COD for O & G Trap Outlet



Project: Lajkura OCP
Monitoring Station: Mine Sump Water
Table 107

Date of Sampling	pH
09-May-15	7.86
08-Aug-15	7.4
05-Nov-15	3.74
05-Feb-16	7.96



Project: Lajkura OCP
Monitoring Station: Outlet from sedimentation pond (MDTP)

Table 108

Area	lb-Valley	MoEF-Sch-VI Standards
Date	9.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.6	
Nitrate Nitrogen	2	10
Ammonia Nitrogen	0.32	50
Total Kjeldhal Nitrogen	1.88	100
BOD	8	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.2	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.16	2
Dis. PO ₄	0.2	5
Sulphide	0.005	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.14	3

All values are in mg/L except pH

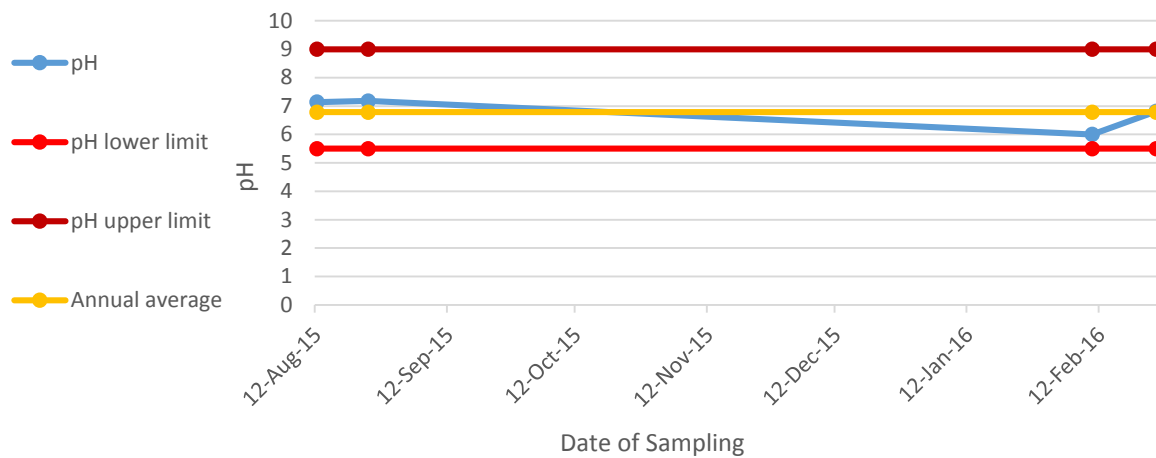
Project: Lakhanpur OCP
Monitoring Station: 100m d/s of point of confluence of natural mine water drain to Lilari Nala and Ib river

Table 109

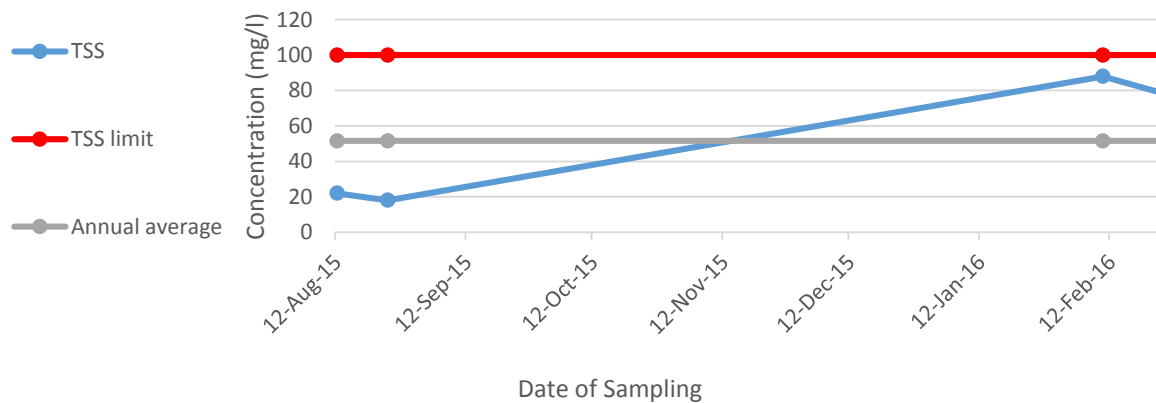
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	7.14	<4.0	22	40
24-Aug-15	7.18	<4.0	18	36
10-Feb-16	6	<4.0	88	28
25-Feb-16	6.81	<4.0	78	64

All values are in mg/L except pH

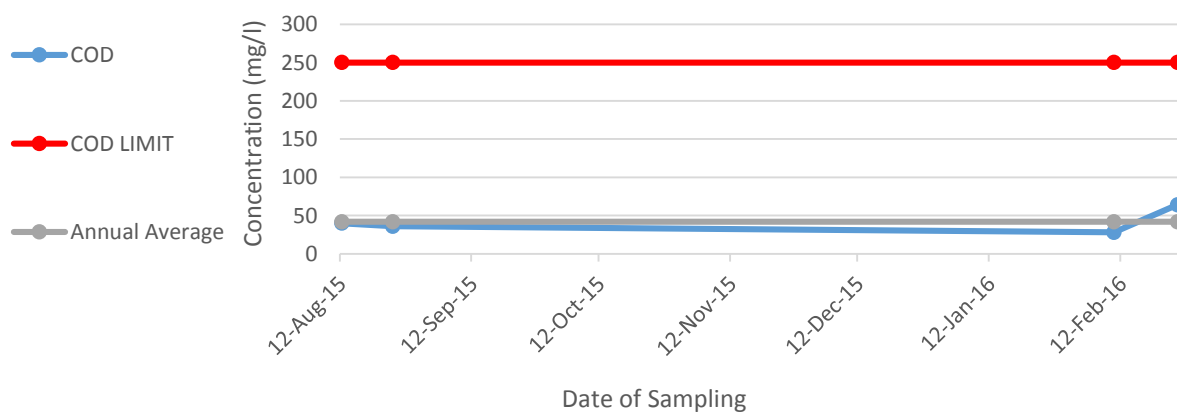
Graph showing pH for 100 m d/s of point of confluence of natural mine water drain to Lilari nala and Ib river



Graph showing TSS for 100 m d/s of point of confluence of natural mine water drain to Lilari nala and Ib river



Graph showing COD for 100 m d/s of point of confluence of natural mine water drain to Lilari nala and Ib river



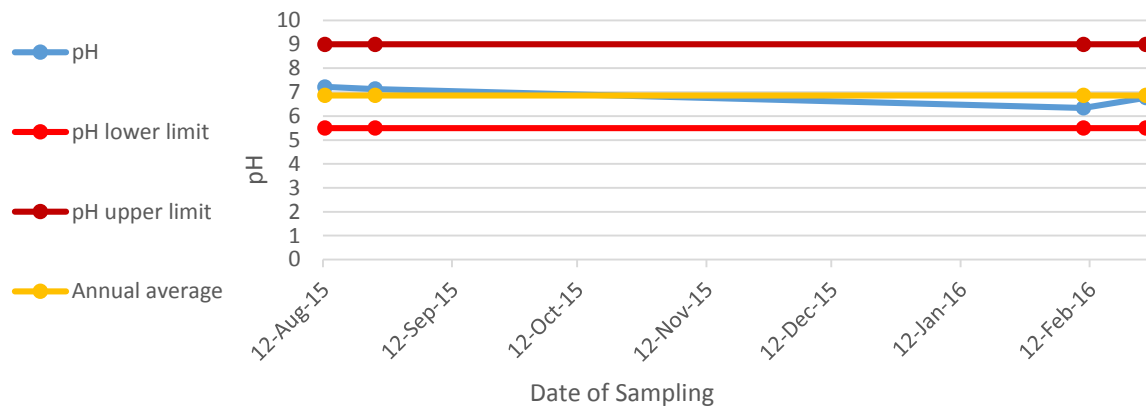
Project: Lakhanpur OCP
Monitoring Station: 100m u/s of point of confluence of natural mine water
drain to Lilari Nala and Ib river

Table 110

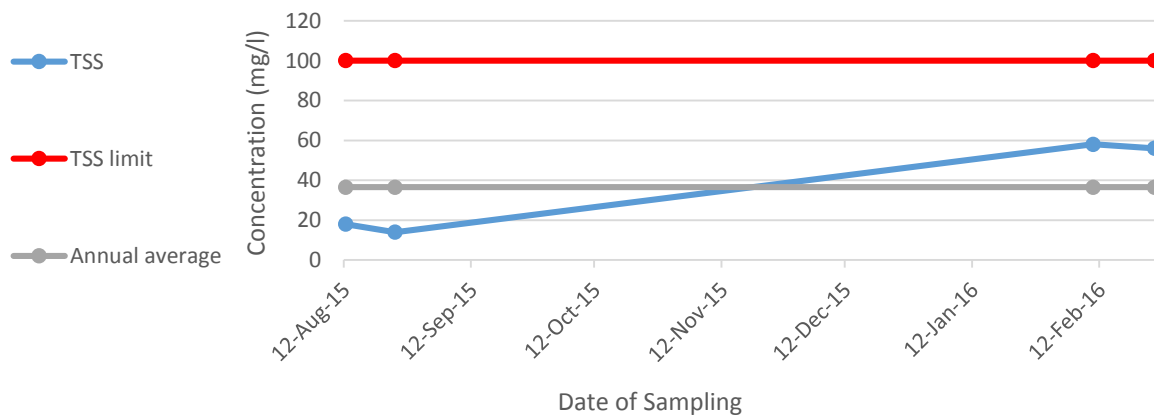
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	7.22	<4.0	18	36
24-Aug-15	7.13	<4.0	14	28
10-Feb-16	6.34	<4.0	58	44
25-Feb-16	6.77	<4.0	56	28

All values are in mg/L except pH

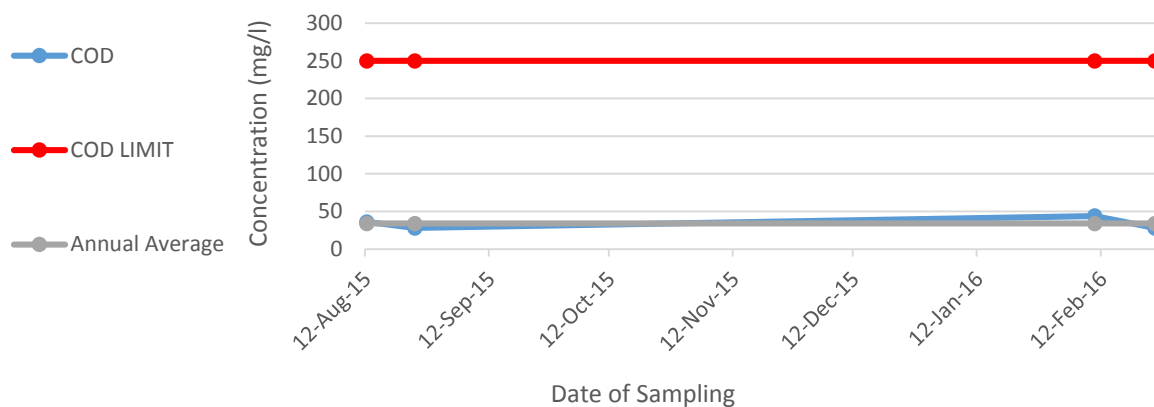
Graph showing pH for 100 m u/s of point of confluence of natural mine water drain to Lilari nala and Ib river



Graph showing TSS for 100 m u/s of point of confluence of natural mine water drain to Lilari nala and Ib river



Graph showing COD for 100 m u/s of point of confluence of natural mine water drain to Lilari nala and Ib river



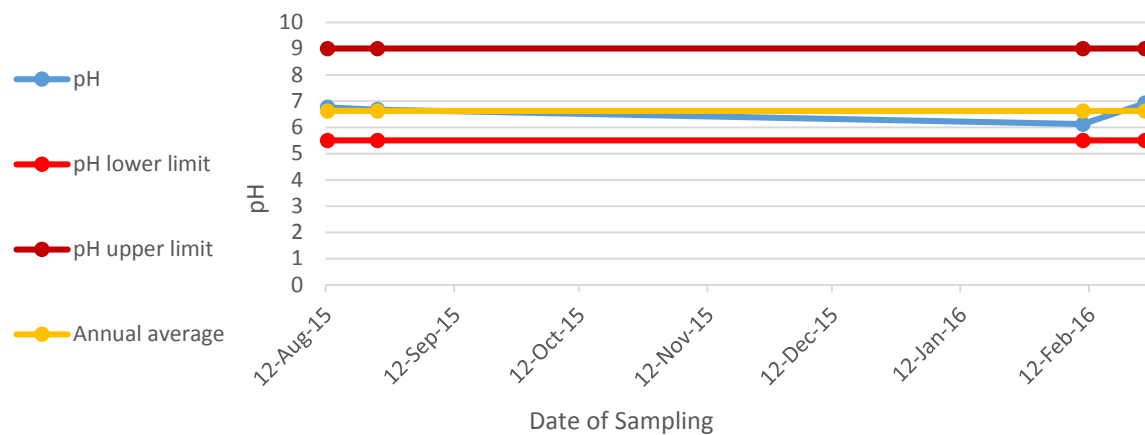
Project: Lakhanpur OCP
Monitoring Station: 50m before the point of confluence of natural drain of
mine pumped water to Lilari Nala and Ib River

Table 111

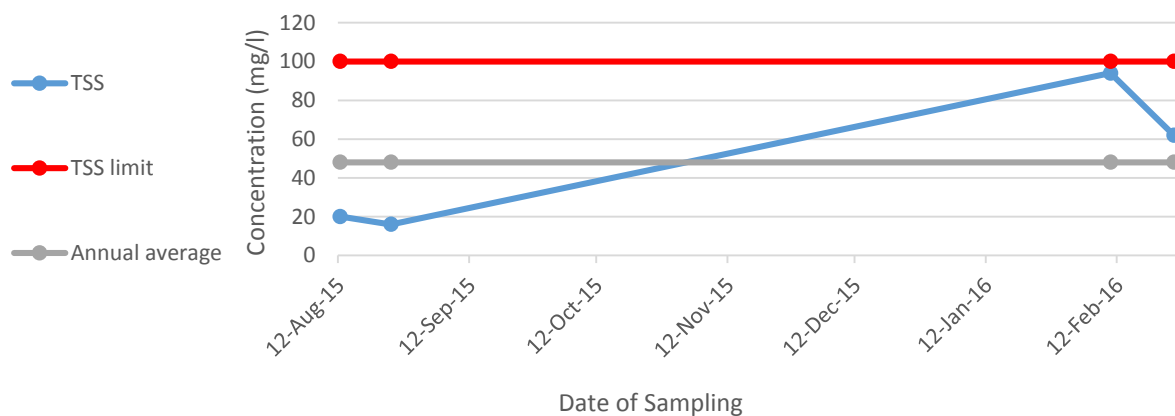
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	6.76	<4.0	20	32
24-Aug-15	6.68	<4.0	16	32
10-Feb-16	6.12	<4.0	94	112
25-Feb-16	6.92	<4.0	62	56

All values are in mg/L except pH

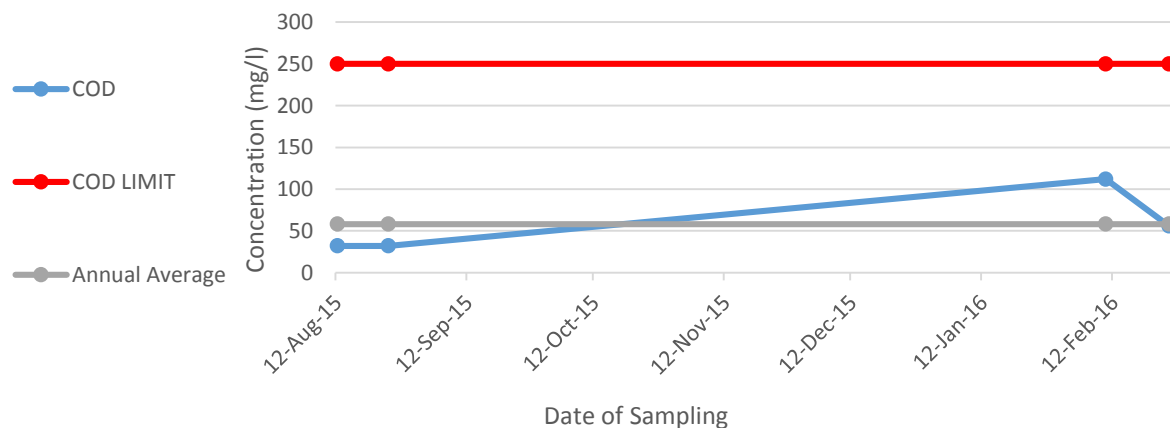
Graph showing pH for 50 m before the point of confluence of natural drain of mine pumped water to Lilari nala and Ib river



Graph showing TSS for 50 m before the point of confluence of natural drain of mine pumped water to Lilari nala and Ib river

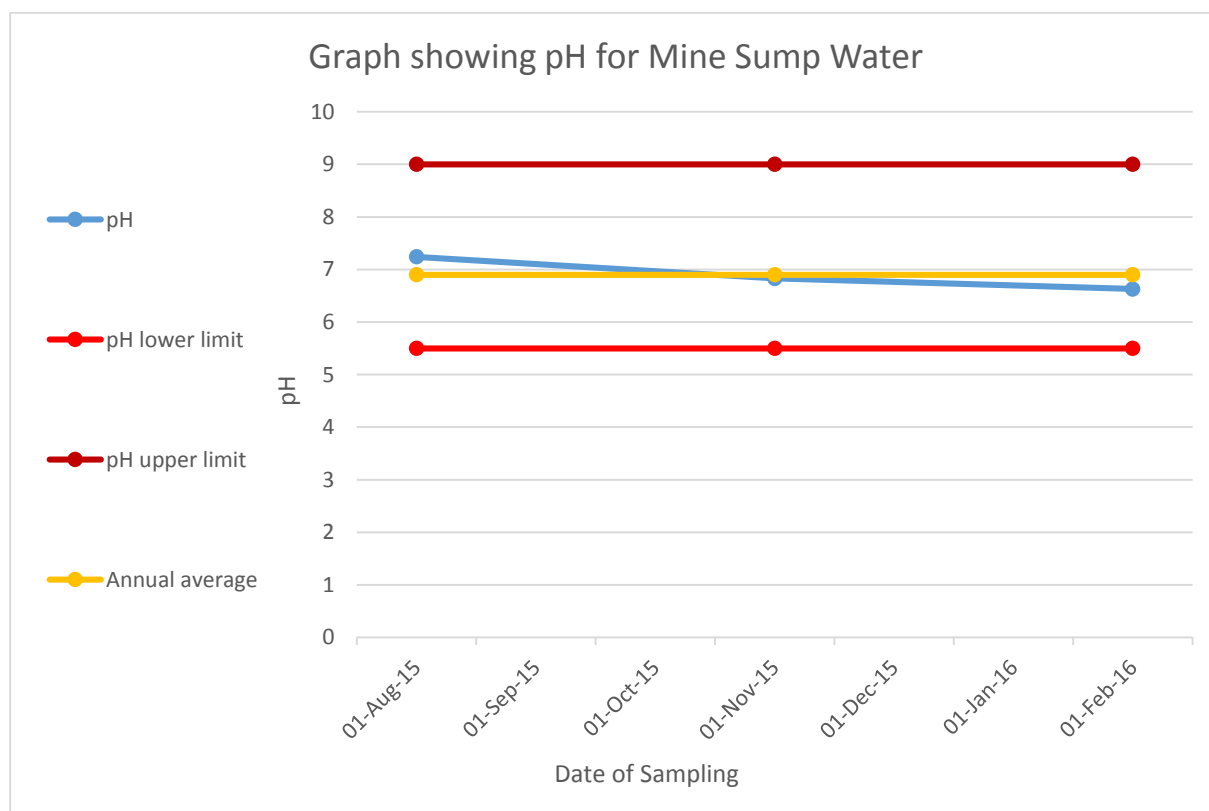


Graph showing COD for 50 m before the point of confluence of natural drain of mine pumped water to Lilari nala and Ib river



Project: Lakhanpur OCP
Monitoring Station: Mine Sump Water
Table 112

Date of Sampling	pH
12-Aug-15	7.24
06-Nov-15	6.83
01-Feb-16	6.63

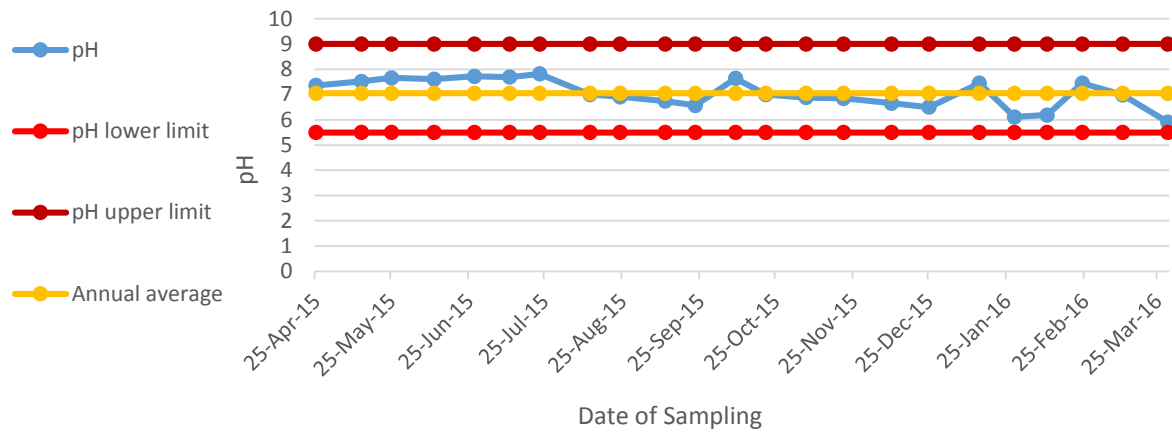


Project: Lakhanpur OCP
Monitoring Station: O&G Trap outlet no. 1
Table 113

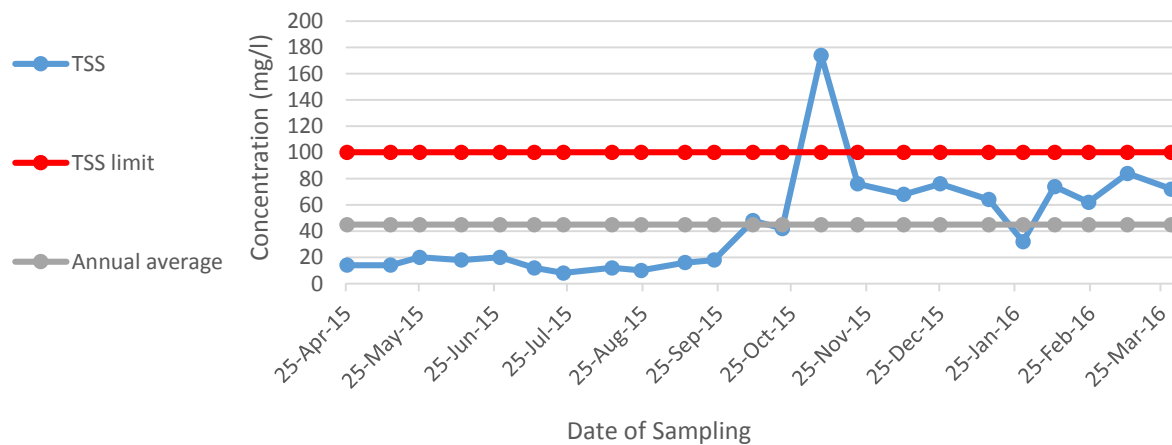
Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.36	<4.0	14	24
13-May-15	7.52	<4.0	14	20
25-May-15	7.66	<4.0	20	24
11-Jun-15	7.61	<4.0	18	28
27-Jun-15	7.72	<4.0	20	32
11-Jul-15	7.69	<4.0	12	28
23-Jul-15	7.82	<4.0	8	20
12-Aug-15	7	<4.0	12	28
24-Aug-15	6.91	<4.0	10	20
11-Sep-15	6.74	<4.0	16	28
23-Sep-15	6.57	<4.0	18	26
09-Oct-15	7.64	<4.0	48	64
21-Oct-15	7	<4.0	42	64
06-Nov-15	6.88	<4.0	174	120
21-Nov-15	6.85	<4.0	76	48
10-Dec-15	6.66	<4.0	68	36
25-Dec-15	6.5	<4.0	76	68
14-Jan-16	7.45	<4.0	64	52
28-Jan-16	6.11	<4.0	32	20
10-Feb-16	6.19	<4.0	74	44
24-Feb-16	7.45	<4.0	62	56
11-Mar-16	6.99	<4.0	84	60
29-Mar-16	5.91	<4.0	72	40

All values are in mg/L except pH

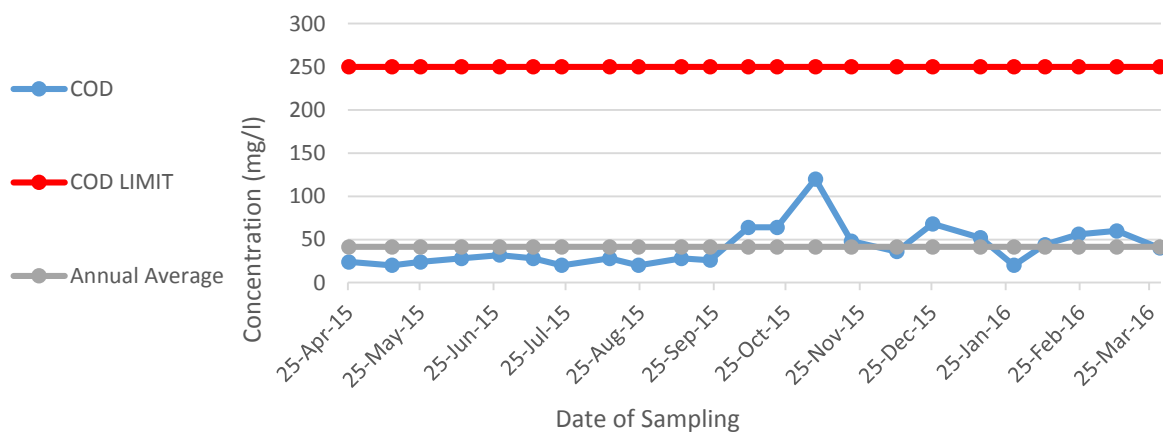
Graph showing pH for O & G Trap outlet no 1



Graph showing TSS for O & G Trap outlet no 1



Graph showing COD for O & G Trap outlet no 1



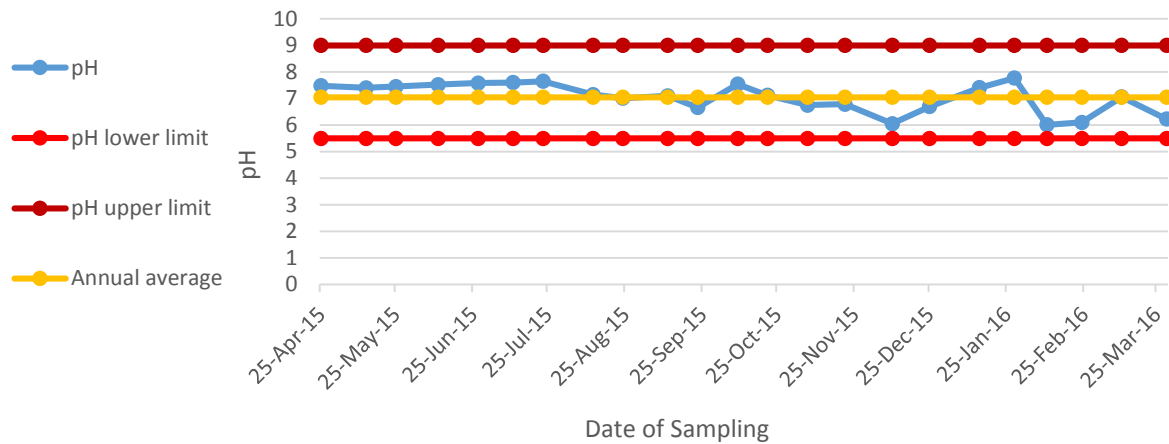
Project: Lakhanpur OCP
Monitoring Station: O&G Trap outlet no. 2

Table 114

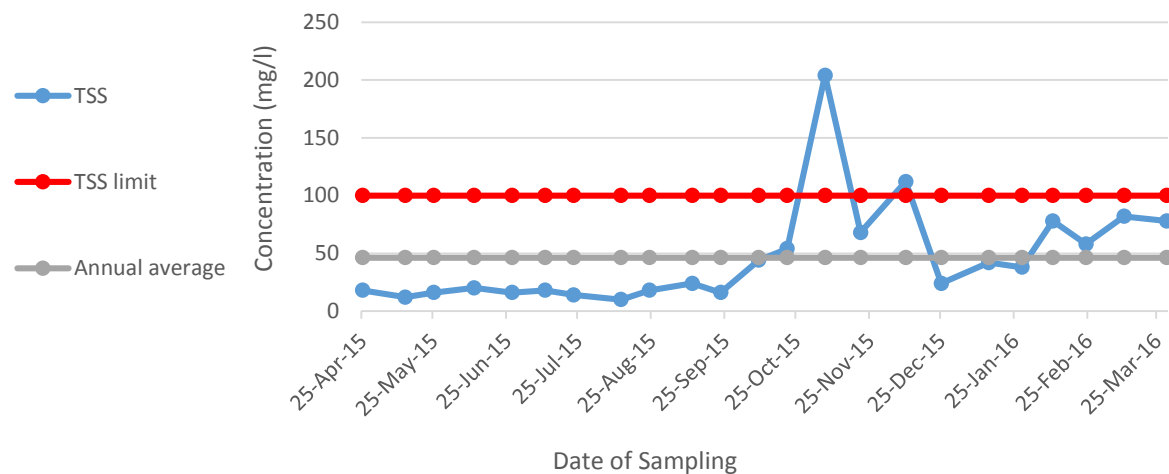
Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.48	<4.0	18	28
13-May-15	7.4	<4.0	12	16
25-May-15	7.45	<4.0	16	28
11-Jun-15	7.52	<4.0	20	38
27-Jun-15	7.58	<4.0	16	32
11-Jul-15	7.6	<4.0	18	36
23-Jul-15	7.65	<4.0	14	32
12-Aug-15	7.15	<4.0	10	20
24-Aug-15	7.01	<4.0	18	36
11-Sep-15	7.1	<4.0	24	32
23-Sep-15	6.66	<4.0	16	28
09-Oct-15	7.54	<4.0	44	32
21-Oct-15	7.12	<4.0	54	32
06-Nov-15	6.75	<4.0	204	140
21-Nov-15	6.79	<4.0	68	44
10-Dec-15	6.05	<4.0	112	56
25-Dec-15	6.7	<4.0	24	16
14-Jan-16	7.41	<4.0	42	32
28-Jan-16	7.77	<4.0	38	24
10-Feb-16	6.01	<4.0	78	56
24-Feb-16	6.1	<4.0	58	36
11-Mar-16	7.06	<4.0	82	64
29-Mar-16	6.23	<4.0	78	26

All values are in mg/L except pH

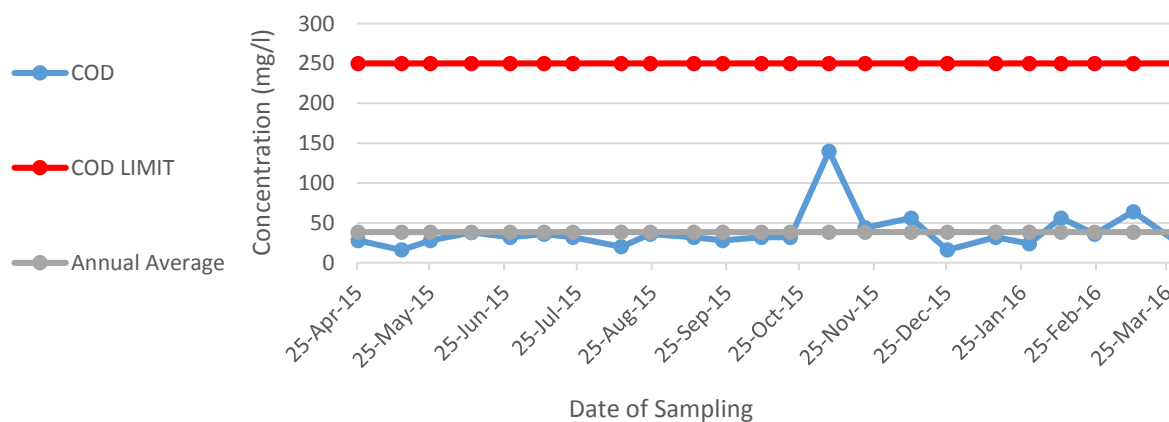
Graph showing pH for O & G Trap outlet no 2



Graph showing TSS for O & G Trap outlet no 2



Graph showing COD for O & G Trap outlet no 2



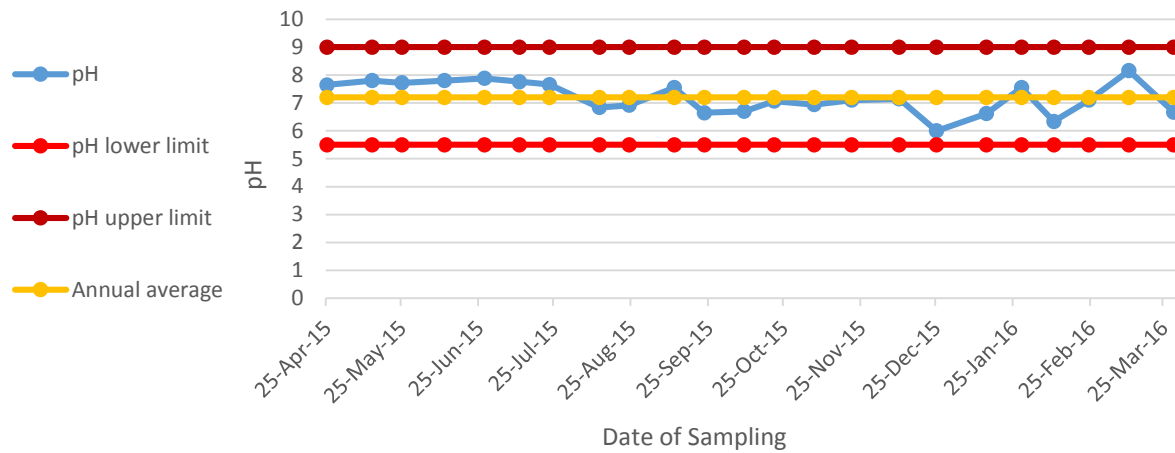
Project: Lakhanpur OCP
Monitoring Station: Outlet from Sedimentation Pond (MDTP)

Table 115

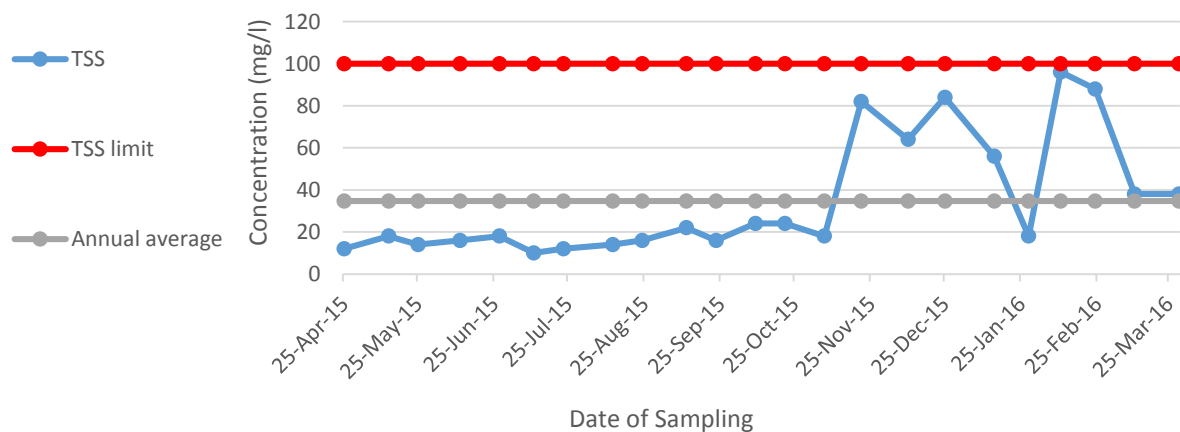
Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.65	<4.0	12	20
13-May-15	7.8	<4.0	18	28
25-May-15	7.72	<4.0	14	20
11-Jun-15	7.8	<4.0	16	24
27-Jun-15	7.88	<4.0	18	28
11-Jul-15	7.76	<4.0	10	24
23-Jul-15	7.66	<4.0	12	28
12-Aug-15	6.84	<4.0	14	32
24-Aug-15	6.92	<4.0	16	36
11-Sep-15	7.55	<4.0	22	32
23-Sep-15	6.65	<4.0	16	24
09-Oct-15	6.7	<4.0	24	28
21-Oct-15	7.07	<4.0	24	32
06-Nov-15	6.94	<4.0	18	16
21-Nov-15	7.1	<4.0	82	68
10-Dec-15	7.15	<4.0	64	32
25-Dec-15	6	<4.0	84	72
14-Jan-16	6.62	<4.0	56	36
28-Jan-16	7.55	<4.0	18	68
10-Feb-16	6.34	<4.0	96	152
24-Feb-16	7.1	<4.0	88	112
11-Mar-16	8.16	<4.0	38	20
29-Mar-16	6.67	<4.0	38	28

All values are in mg/L except pH

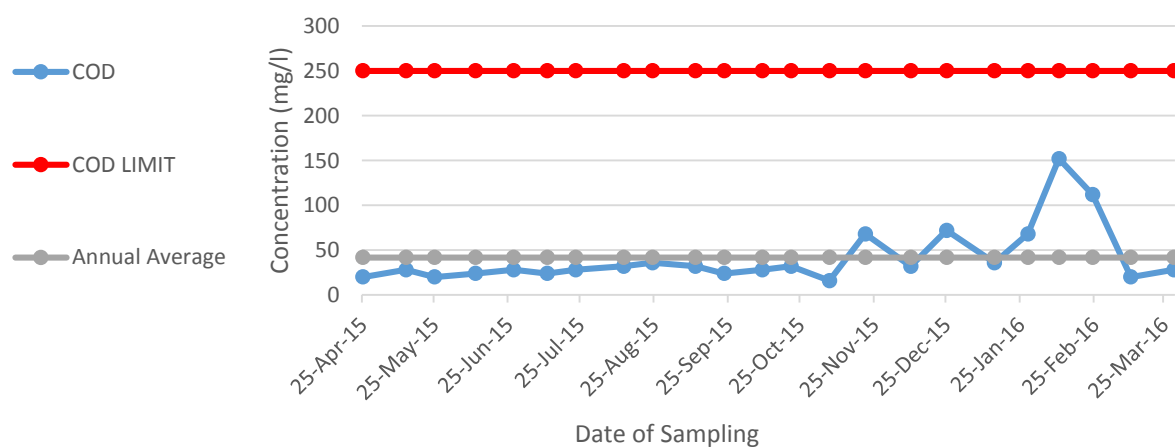
Graph showing pH for Outlet from Sedimentation Pond



Graph showing TSS for Outlet from Sedimentation Pond



Graph showing COD for Outlet from Sedimentation Pond



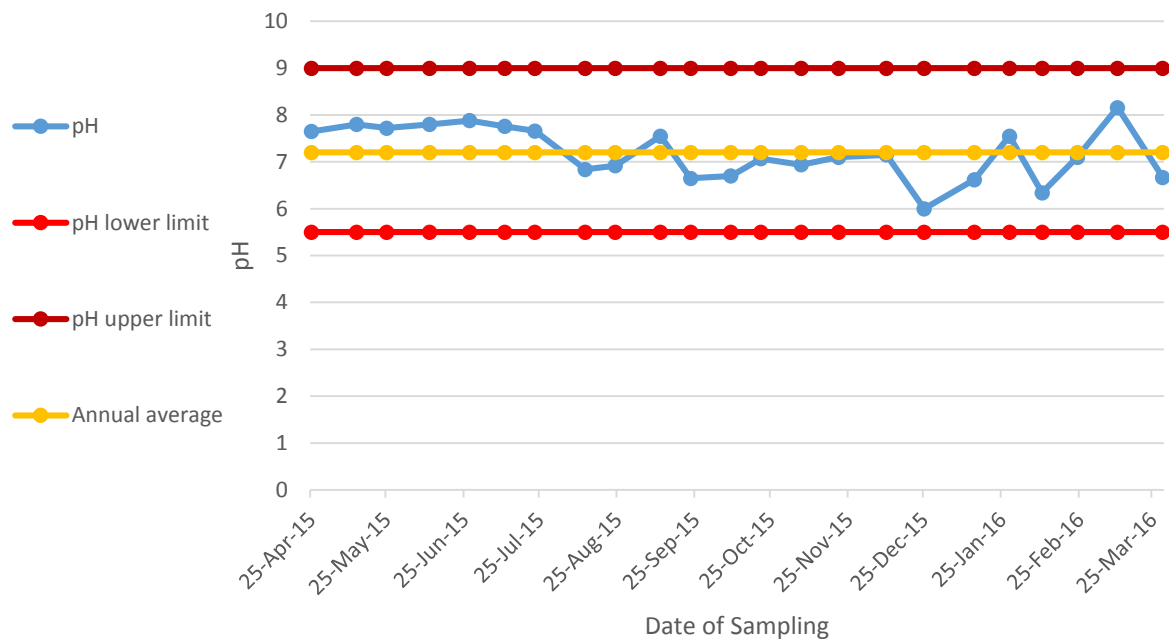
Project: Lakhanpur OCP
Monitoring Station: Outlet from sedimentation Pond

Table 116

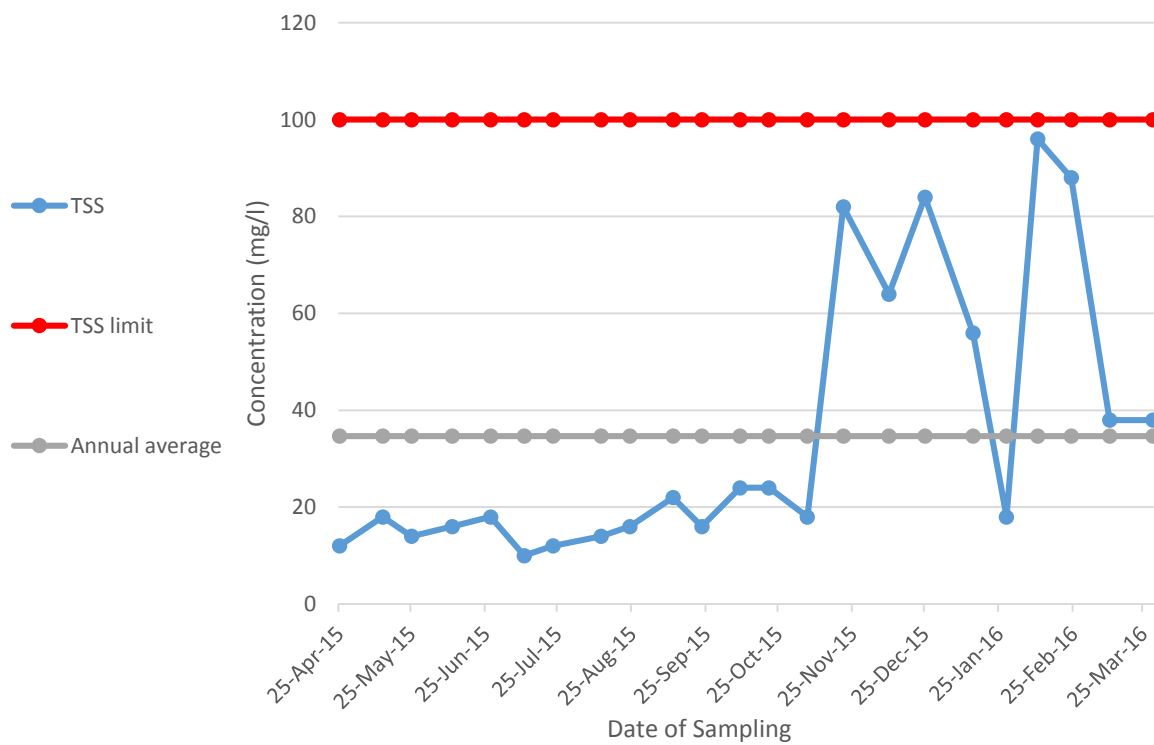
Area	Lakhanpur	MoEF-Sch-VI Standards
Date	13.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.6	
Nitrate Nitrogen	2	10
Ammonia Nitrogen	0.26	50
Total Kjeldahl Nitrogen	2.18	100
BOD	12	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.14	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.34	2
Dis. PO ₄	0.12	5
Sulphide	0.005	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.11	3

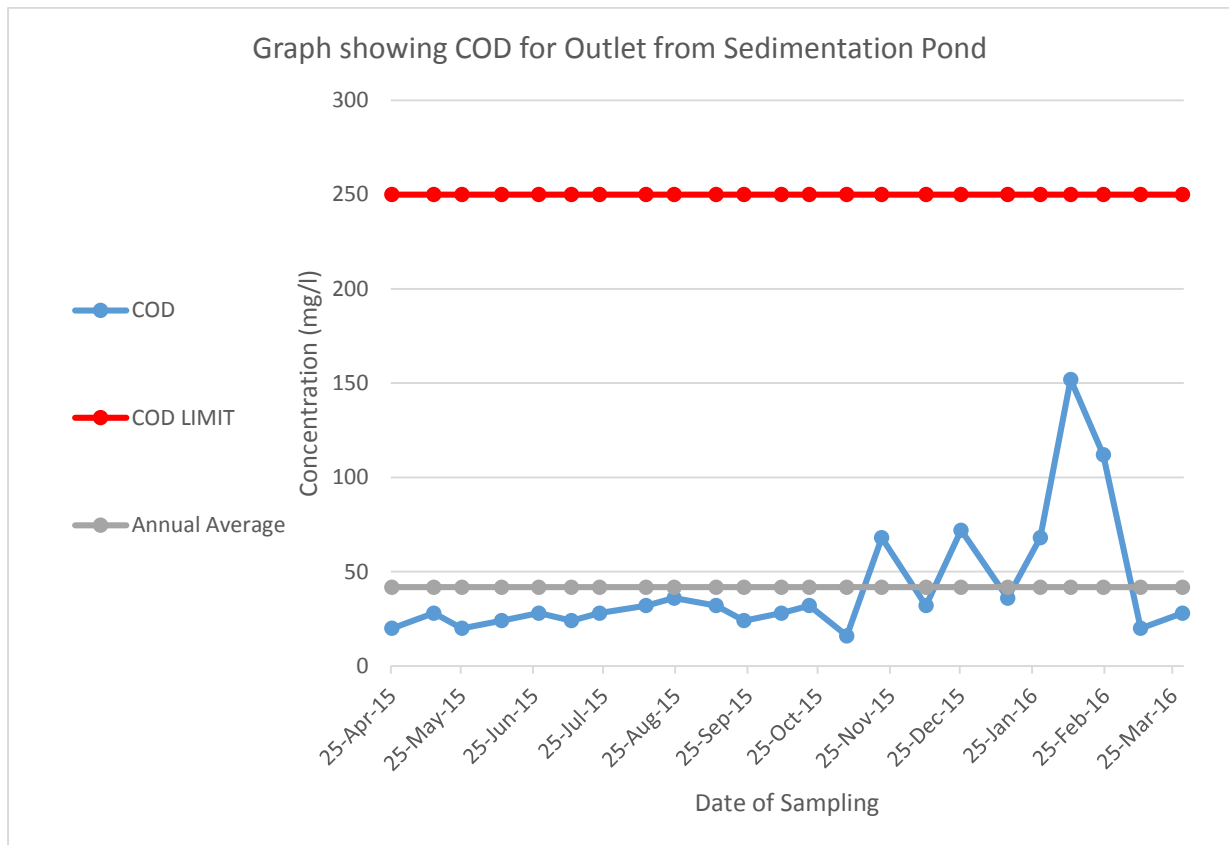
All values are in mg/L except pH

Graph showing pH for Outlet from Sedimentation Pond



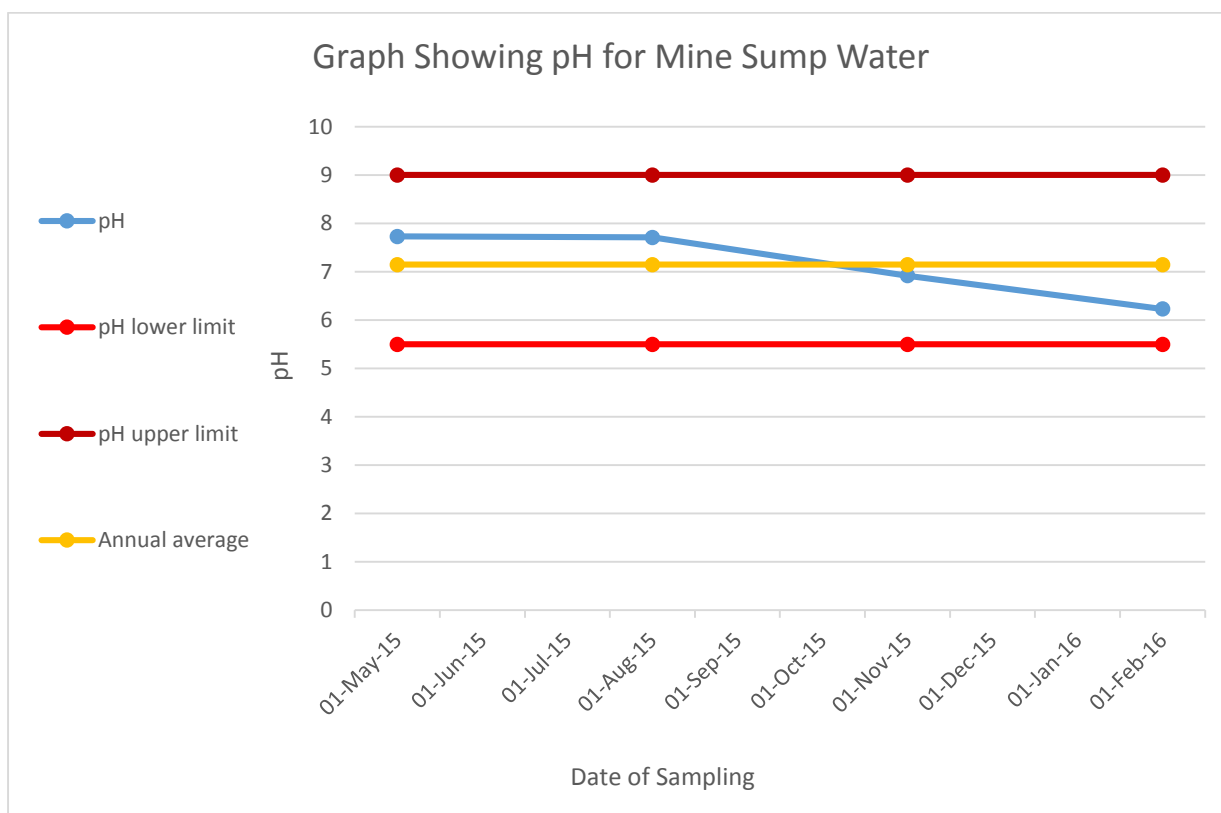
Graph showing TSS for Outlet from Sedimentation Pond





Project: Lilari OCP
Monitoring Station: Mine Sump Water
Table 117

Date of Sampling	pH
13-May-15	7.73
12-Aug-15	7.71
06-Nov-15	6.92
10-Feb-16	6.23

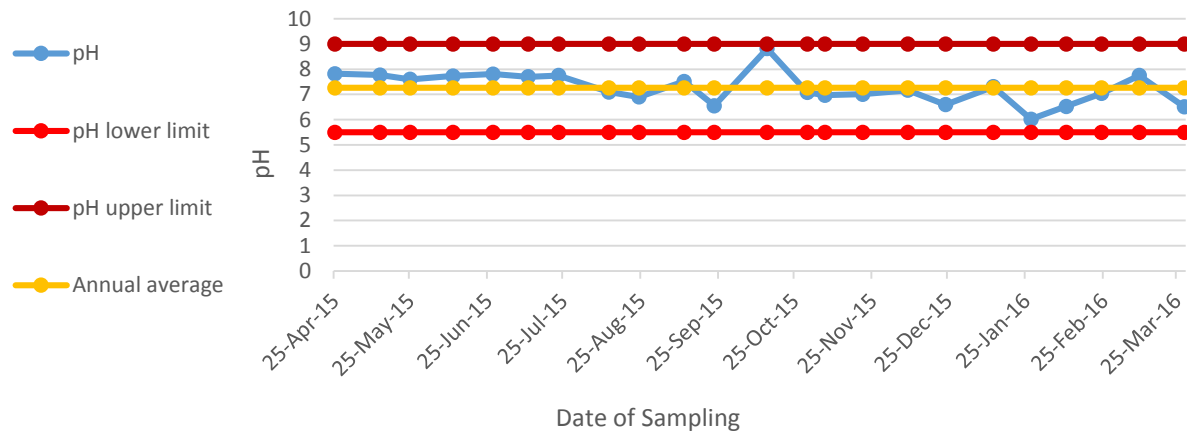


Project: Lilari OCP
Monitoring Station: O&G Trap outlet
Table 118

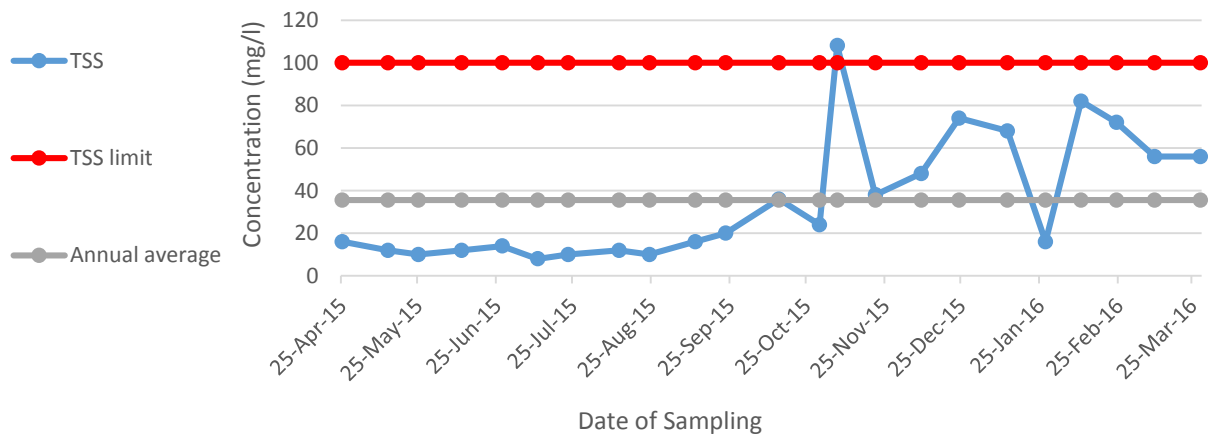
Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.82	<4.0	16	28
13-May-15	7.77	<4.0	12	24
25-May-15	7.6	<4.0	10	16
11-Jun-15	7.73	<4.0	12	16
27-Jun-15	7.81	<4.0	14	20
11-Jul-15	7.7	<4.0	8	20
23-Jul-15	7.75	<4.0	10	24
12-Aug-15	7.1	<4.0	12	24
24-Aug-15	6.9	<4.0	10	20
11-Sep-15	7.52	<4.0	16	28
23-Sep-15	6.55	<4.0	20	32
14-Oct-15	8.82	<4.0	36	32
30-Oct-15	7.08	<4.0	24	32
06-Nov-15	6.97	<4.0	108	84
21-Nov-15	7.01	<4.0	38	24
09-Dec-15	7.17	<4.0	48	24
24-Dec-15	6.6	<4.0	74	64
12-Jan-16	7.31	<4.0	68	36
27-Jan-16	6.02	<4.0	16	64
10-Feb-16	6.53	<4.0	82	40
24-Feb-16	7.04	<4.0	72	48
10-Mar-16	7.75	<4.0	56	40
28-Mar-16	6.51	<4.0	56	40

All values are in mg/L except pH

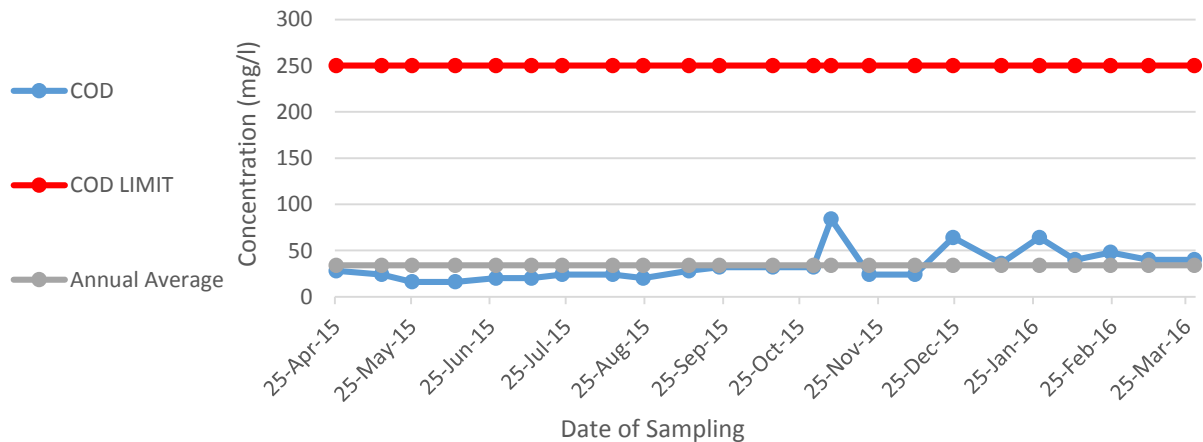
Graph Showing pH for O & G Trap Outlet



Graph Showing TSS for O & G Trap Outlet



Graph Showing COD for O & G Trap Outlet



Project: Lilari OCP
Monitoring Station: Outlet O & G Trap

Table 119

Area	Lakhanpur	MoEF-Sch-VI Standards
Date	13.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.7	
Nitrate Nitrogen	1.8	10
Ammonia Nitrogen	0.32	50
Total Kjeldahl Nitrogen	2.12	100
BOD	12	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.18	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.14	2
Dis. PO ₄	0.26	5
Sulphide	0.003	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.16	3

All values are in mg/L except pH

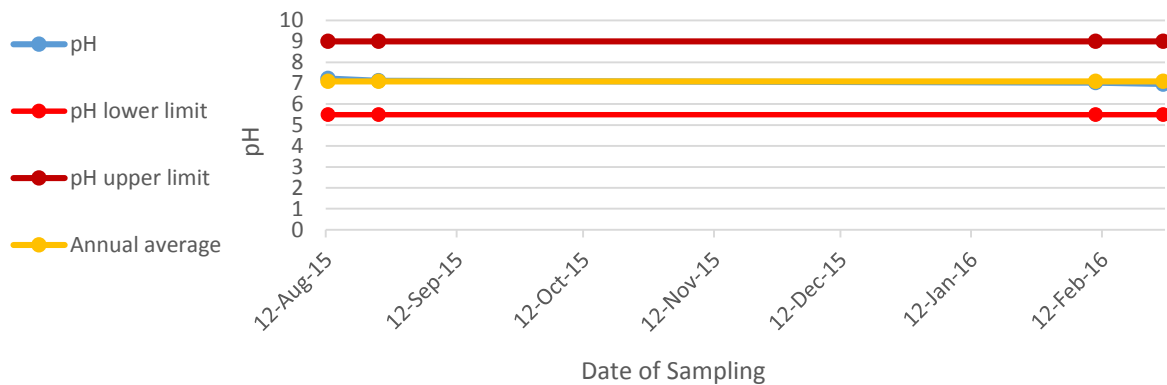
Project: Belpahar OCP
Monitoring Station: 100m d/s of point of confluence of natural mine water drain to Lilari Nala and Ib river

Table 120

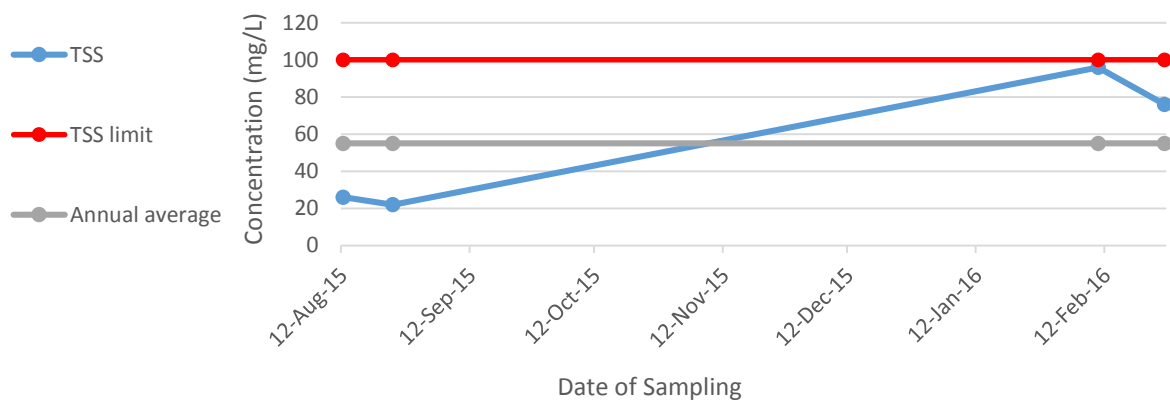
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	7.23	<4.0	26	44
24-Aug-15	7.12	<4.0	22	28
10-Feb-16	7.03	<4.0	96	152
26-Feb-16	6.96	<4.0	76	56

All values are in mg/L except pH

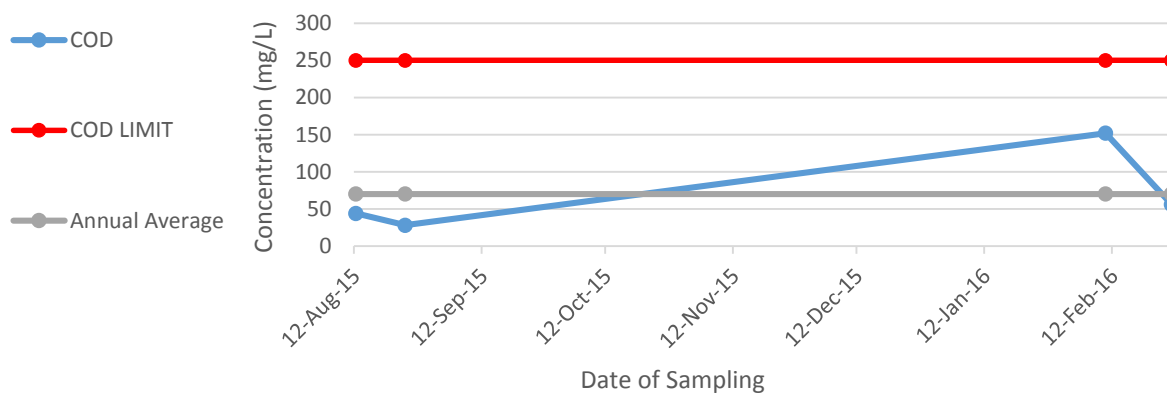
Graph showing pH for 100m d/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



Graph showing TSS for 100m d/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



Graph showing COD for 100m d/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



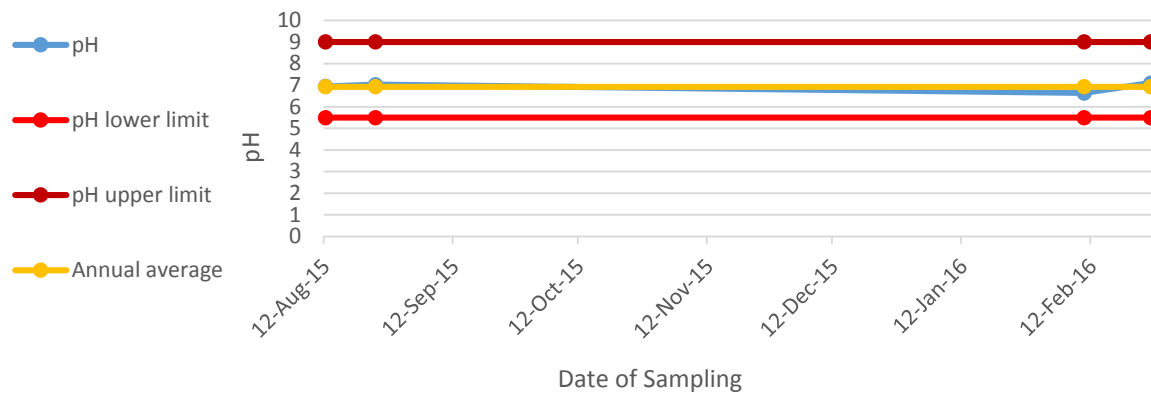
Project: Belpahar OCP
Monitoring Station: 100m u/s of point of confluence of natural mine water
drain to Lilari Nala and Ib river

Table 121

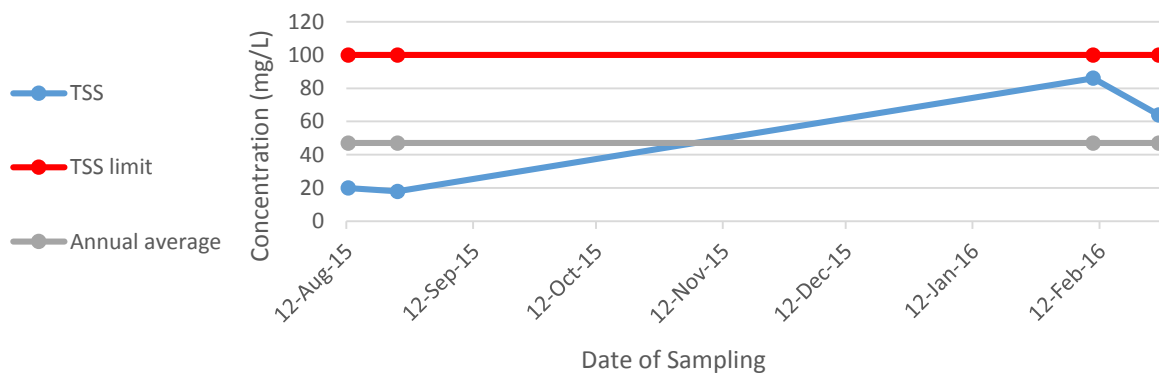
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	6.94	<4.0	20	40
24-Aug-15	7.02	<4.0	18	20
10-Feb-16	6.64	<4.0	86	68
26-Feb-16	7.1	<4.0	64	88

All values are in mg/L except pH

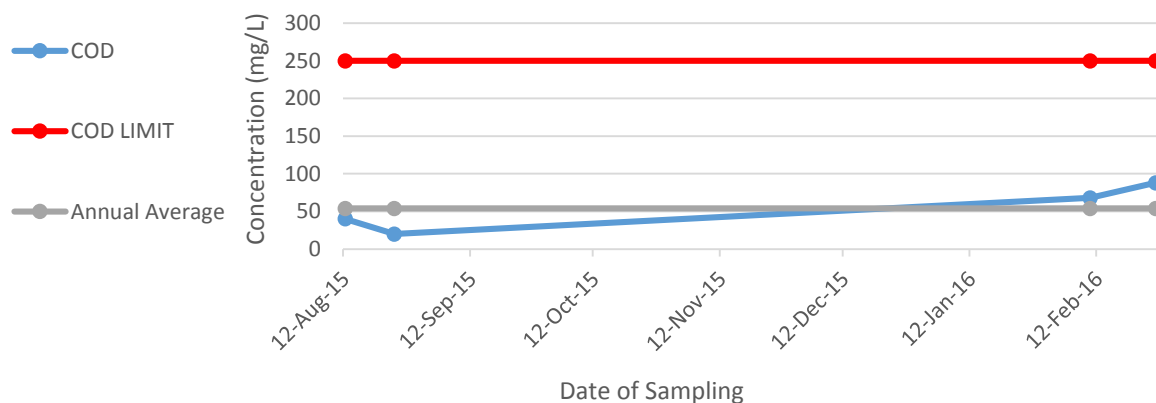
Graph showing pH for 100m u/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



Graph showing TSS for 100m u/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



Graph showing COD for 100m u/s of point of confluence of natural mine water drain to Lilari Nala and Ib river



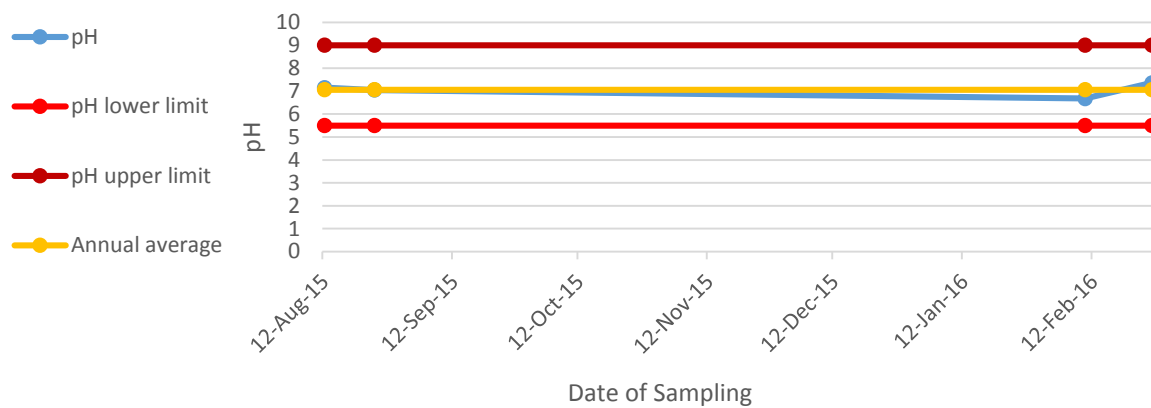
Project: Belpahar OCP
Monitoring Station: 50m before the point of confluence of natural drain of mine pumped water to Lilari Nala and Ib river

Table 122

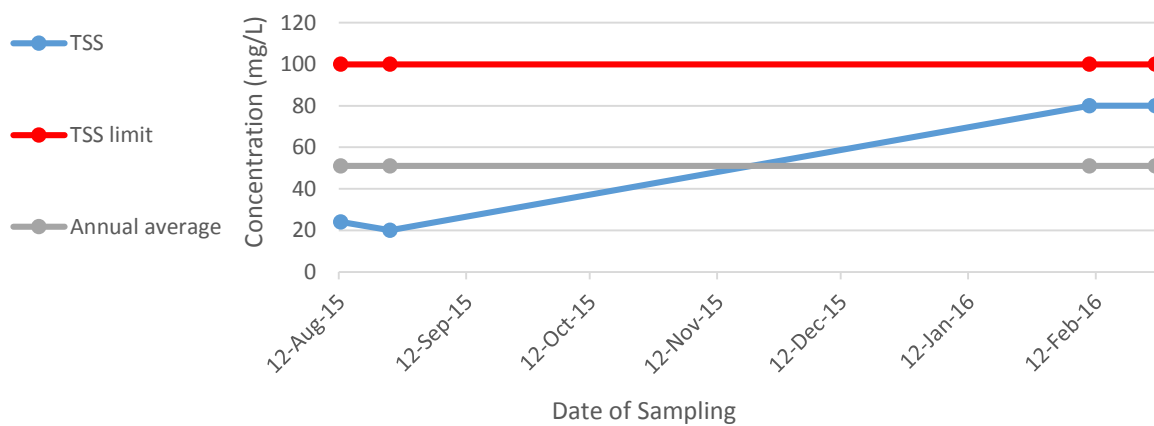
Date of Sampling	pH	Oil & Grease	TSS	COD
12-Aug-15	7.15	<4.0	24	36
24-Aug-15	7.05	<4.0	20	24
10-Feb-16	6.68	<4.0	80	96
26-Feb-16	7.36	<4.0	80	64

All values are in mg/L except pH

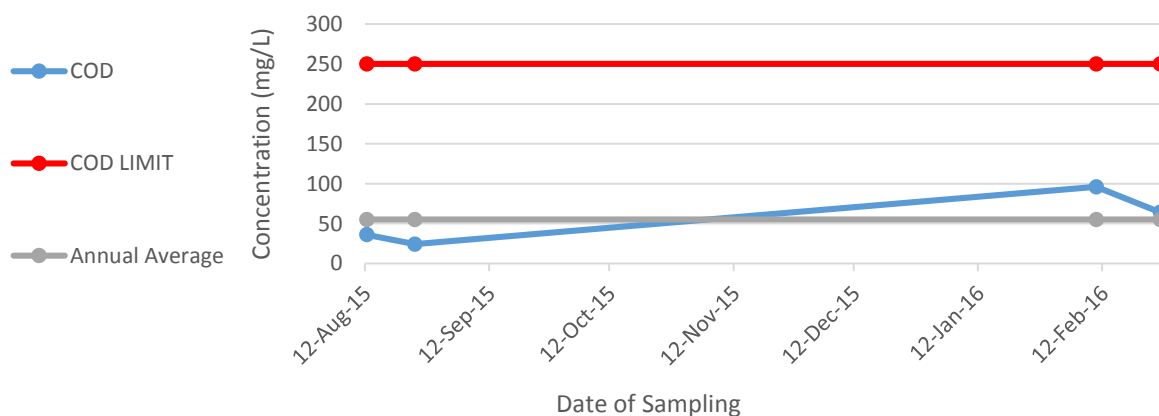
Graph showing pH for 50m before the point of confluence of natural drain of mine pumped water to Lilari Nala and Ib rive



Graph showing TSS for 50m before the point of confluence of natural drain of mine pumped water to Lilari Nala and Ib rive

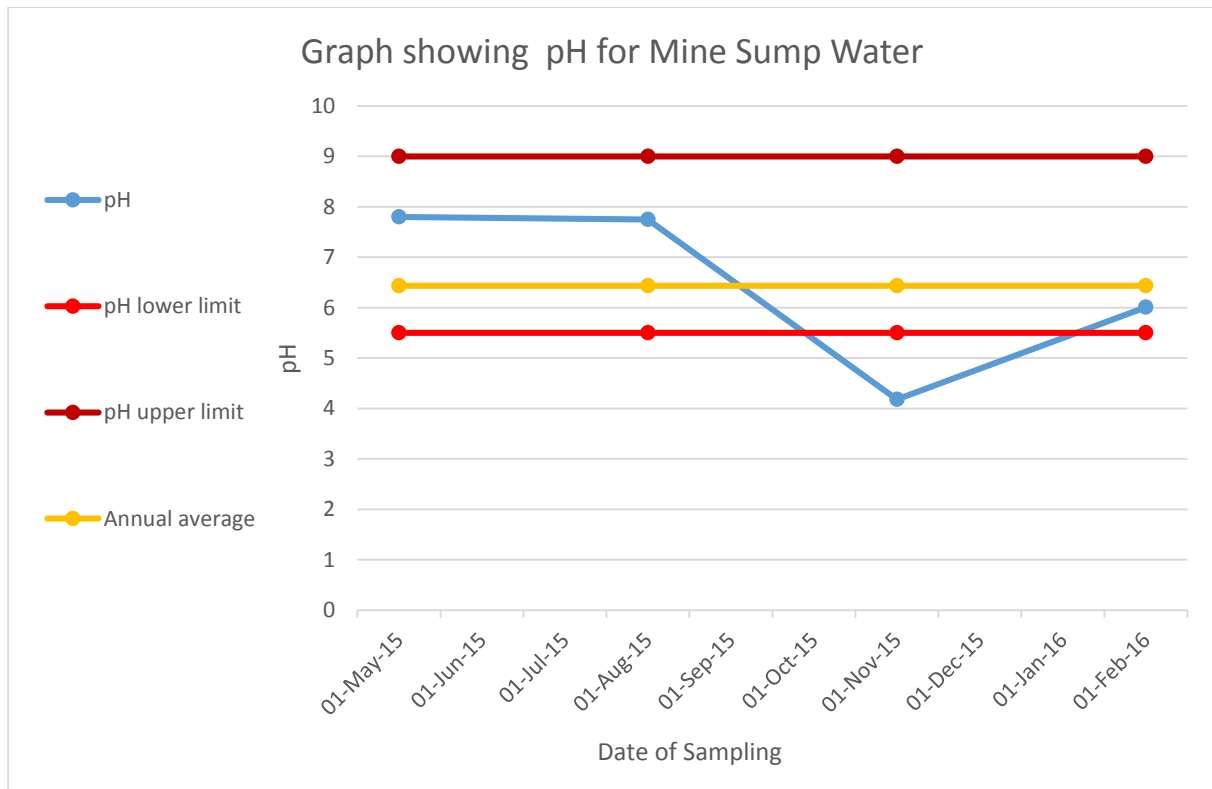


Graph showing COD for 50m before the point of confluence of natural drain of mine pumped water to Lilari Nala and Ib rive



Project: Belpahar OCP
Monitoring Station: Mine Sump Water
Table 123

Date of Sampling	pH
13-May-15	7.8
12-Aug-15	7.75
06-Nov-15	4.18
10-Feb-16	6.01

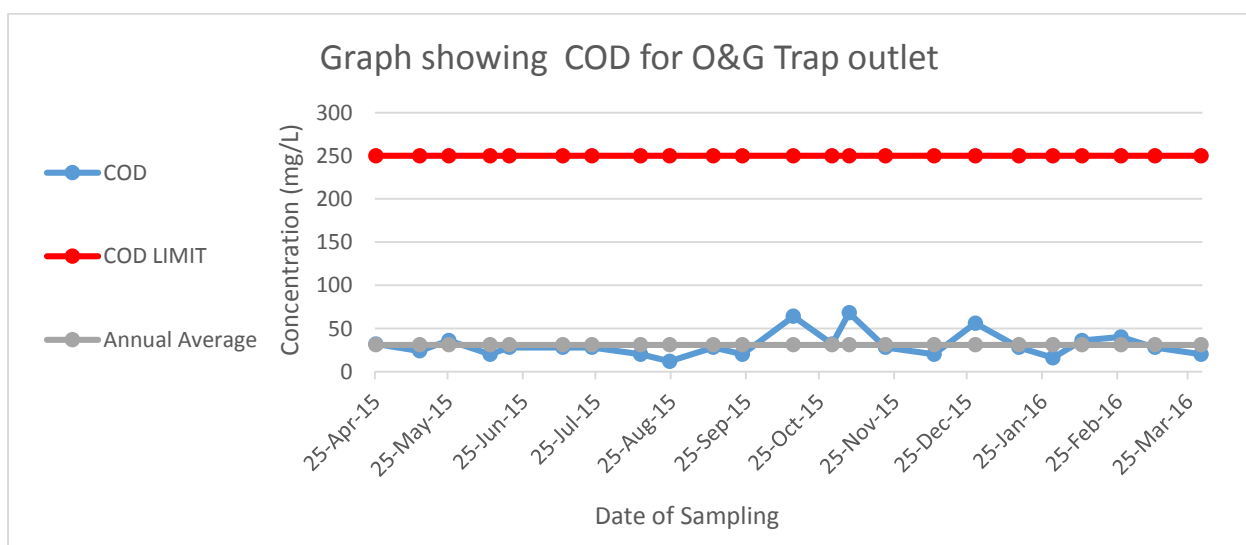
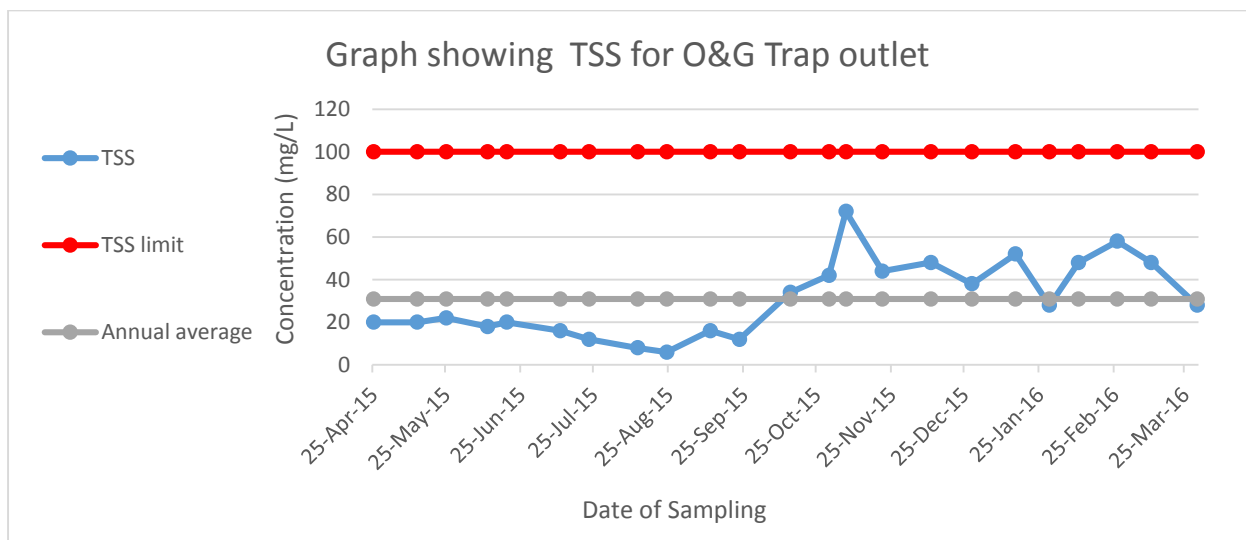
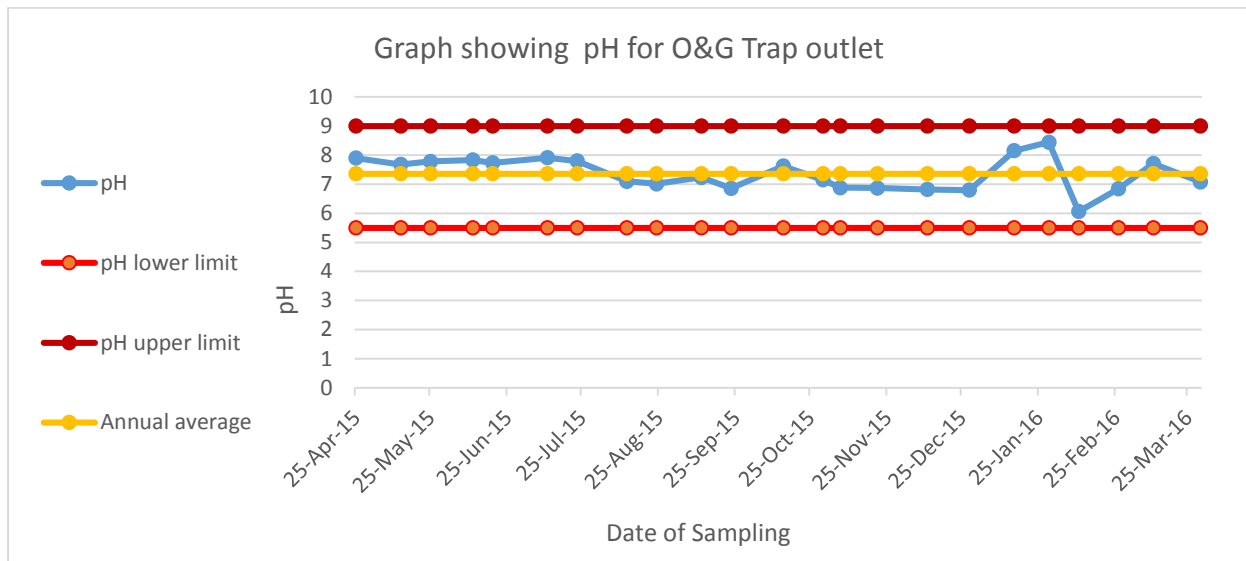


Project: Belpahar OCP
Monitoring Station: O&G Trap outlet

Table 124

Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.9	<4.0	20	32
13-May-15	7.68	<4.0	20	24
25-May-15	7.78	<4.0	22	36
11-Jun-15	7.83	<4.0	18	20
19-Jun-15	7.73	<4.0	20	28
11-Jul-15	7.91	<4.0	16	28
23-Jul-15	7.8	<4.0	12	28
12-Aug-15	7.1	<4.0	8	20
24-Aug-15	7.01	<4.0	6	12
11-Sep-15	7.23	<4.0	16	28
23-Sep-15	6.86	<4.0	12	20
14-Oct-15	7.62	<4.0	34	64
30-Oct-15	7.15	<4.0	42	32
06-Nov-15	6.88	<4.0	72	68
21-Nov-15	6.87	<4.0	44	28
11-Dec-15	6.82	<4.0	48	20
28-Dec-15	6.8	<4.0	38	56
15-Jan-16	8.15	<4.0	52	28
29-Jan-16	8.44	<4.0	28	16
10-Feb-16	6.06	<4.0	48	36
26-Feb-16	6.84	<4.0	58	40
11-Mar-16	7.71	<4.0	48	28
30-Mar-16	7.08	<4.0	28	20

All values are in mg/L except pH



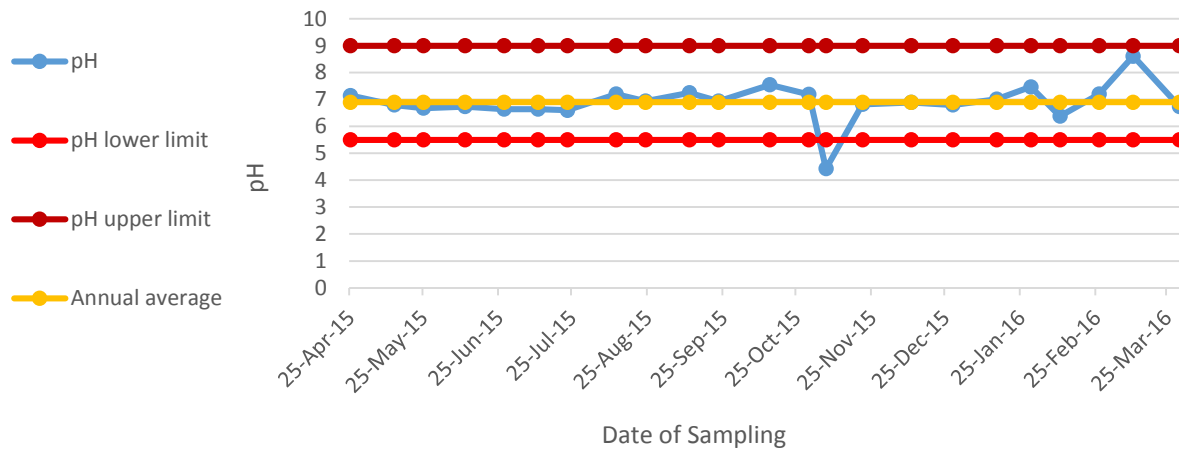
Project: Belpahar OCP
Monitoring Station: Outlet from Sedimentation Pond

Table 125

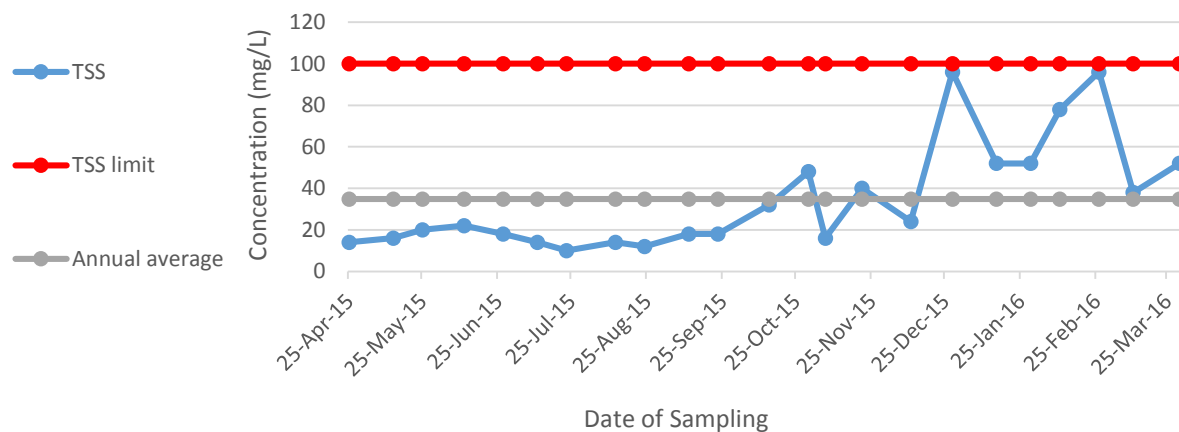
Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-15	7.15	<4.0	14	20
13-May-15	6.8	<4.0	16	24
25-May-15	6.68	<4.0	20	28
11-Jun-15	6.74	<4.0	22	24
27-Jun-15	6.64	<4.0	18	24
11-Jul-15	6.64	<4.0	14	24
23-Jul-15	6.6	<4.0	10	24
12-Aug-15	7.2	<4.0	14	32
24-Aug-15	6.94	<4.0	12	28
11-Sep-15	7.25	<4.0	18	32
23-Sep-15	6.94	<4.0	18	26
14-Oct-15	7.55	<4.0	32	32
30-Oct-15	7.19	<4.0	48	64
06-Nov-15	4.43	<4.0	16	20
21-Nov-15	6.82	<4.0	40	48
11-Dec-15	6.89	<4.0	24	16
28-Dec-15	6.8	<4.0	96	48
15-Jan-16	7.01	<4.0	52	32
29-Jan-16	7.47	<4.0	52	20
10-Feb-16	6.38	<4.0	78	44
26-Feb-16	7.2	<4.0	96	152
11-Mar-16	8.61	<4.0	38	24
30-Mar-16	6.74	<4.0	52	44

All values are in mg/L except pH

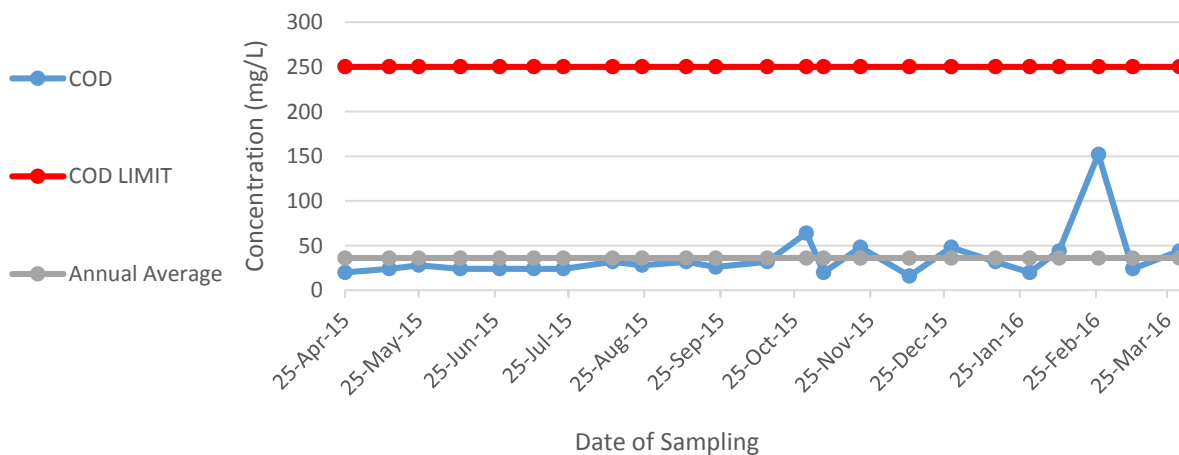
Graph showing pH for Outlet from Sedimentation Pond



Graph showing TSS for Outlet from Sedimentation Pond



Graph showing TSS for Outlet from Sedimentation Pond



Project: Belpahar OCP
Monitoring Station: Outlet from sedimentation Pond

Table 126

Area	Lakhanpur	MoEF-Sch-VI Standards
Date	13.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.7	
Nitrate Nitrogen	1.9	10
Ammonia Nitrogen	0.22	50
Total Kjeldahl Nitrogen	2.12	100
BOD	10	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.16	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.28	2
Dis. PO ₄	0.16	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.13	3

All values are in mg/L except pH

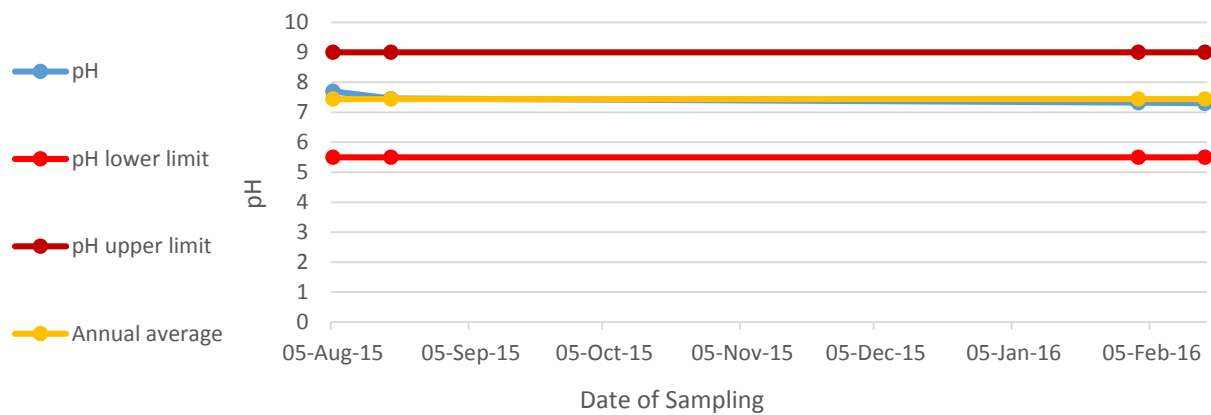
Project: Kulda OCP
Monitoring Station: 100m d/s of point of confluence of natural mine water
drain to Basundhara Nala

Table 127

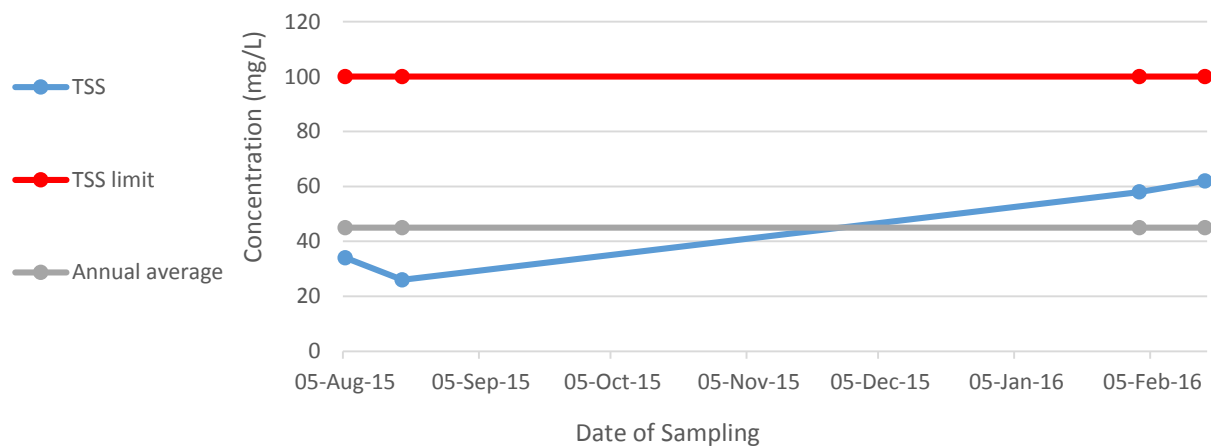
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.7	<4.0	34	40
18-Aug-15	7.46	<4.0	26	36
17-Feb-16	7.3	<4.0	62	44
02-Feb-16	7.32	<4.0	58	44

All values are in mg/L except pH

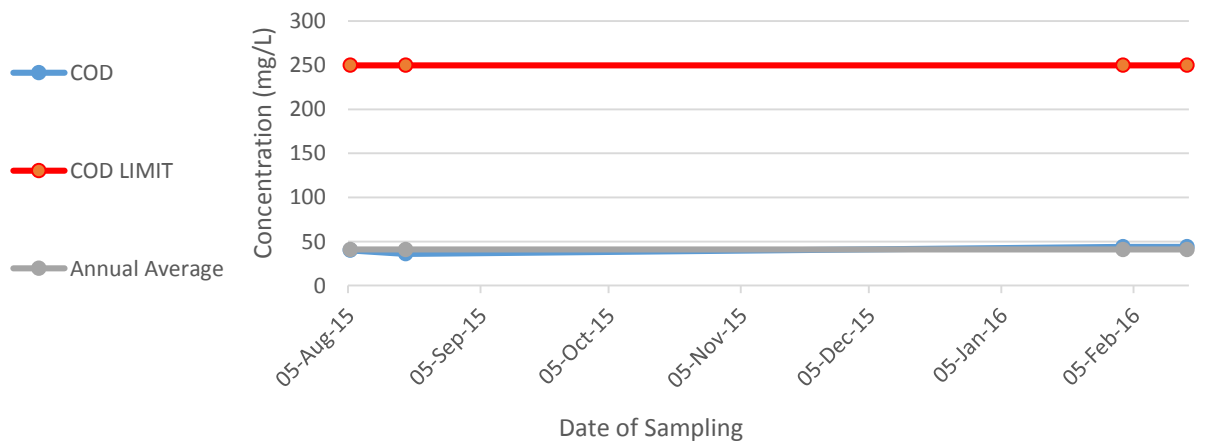
Graph showing for pH for 100m d/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for TSS for 100m d/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for COD for 100m d/s of point of confluence of natural mine water drain to Basundhara Nala



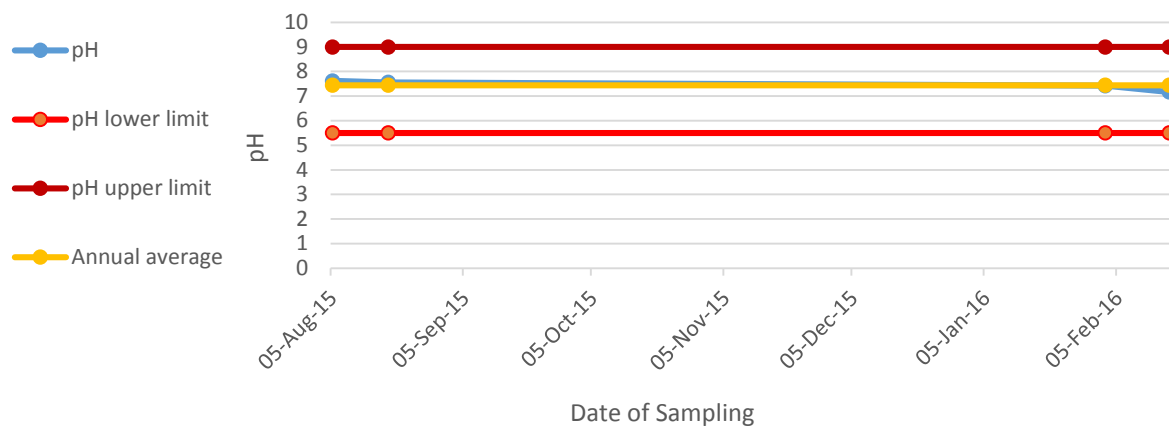
Project: Kulda OCP
Monitoring Station: 100m u/s of point of confluence of natural mine water
drain to Basundhara Nala

Table 128

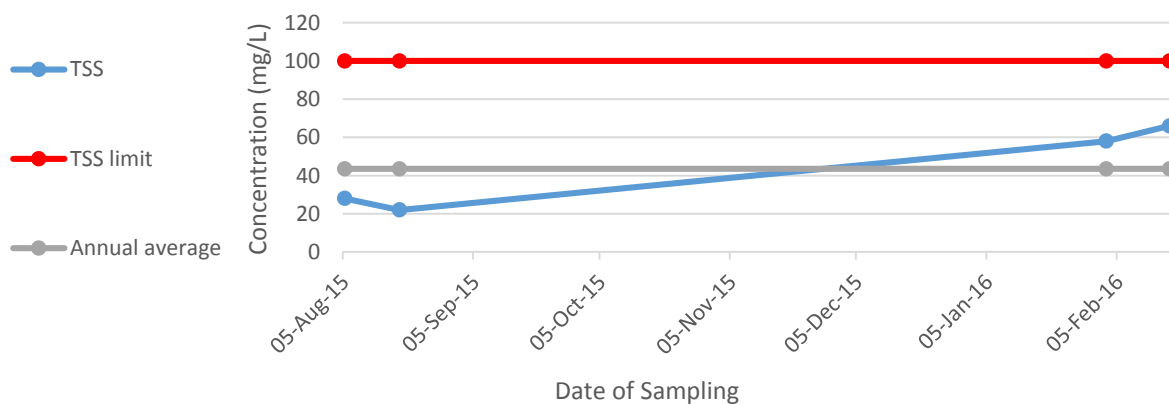
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.62	<4.0	28	32
18-Aug-15	7.56	<4.0	22	28
17-Feb-16	7.17	<4.0	66	36
02-Feb-16	7.42	<4.0	58	48

All values are in mg/L except pH

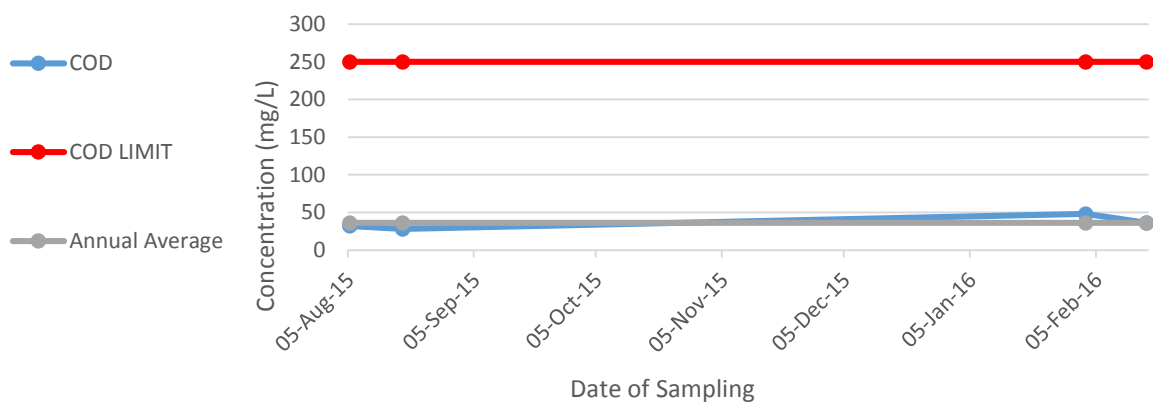
Graph showing for pH for 100m u/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for TSS for 100m u/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for COD for 100m u/s of point of confluence of natural mine water drain to Basundhara Nala



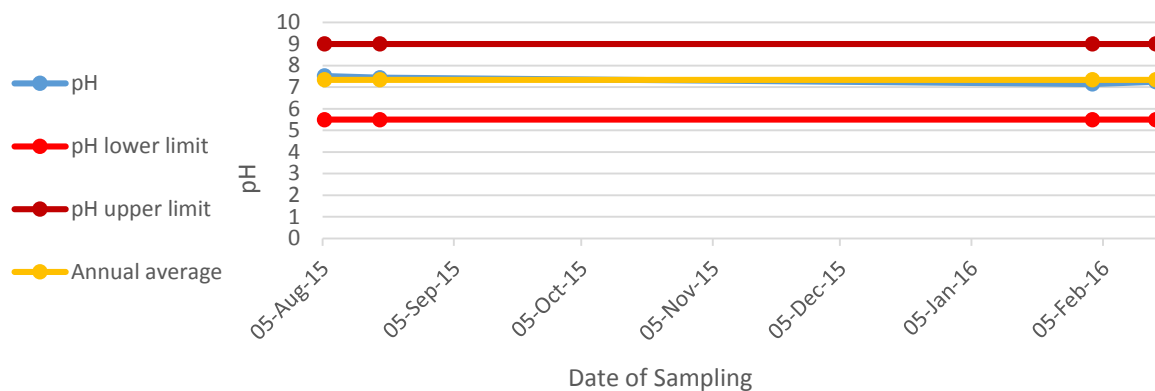
Project: Kulda OCP
Monitoring Station: 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala

Table 129

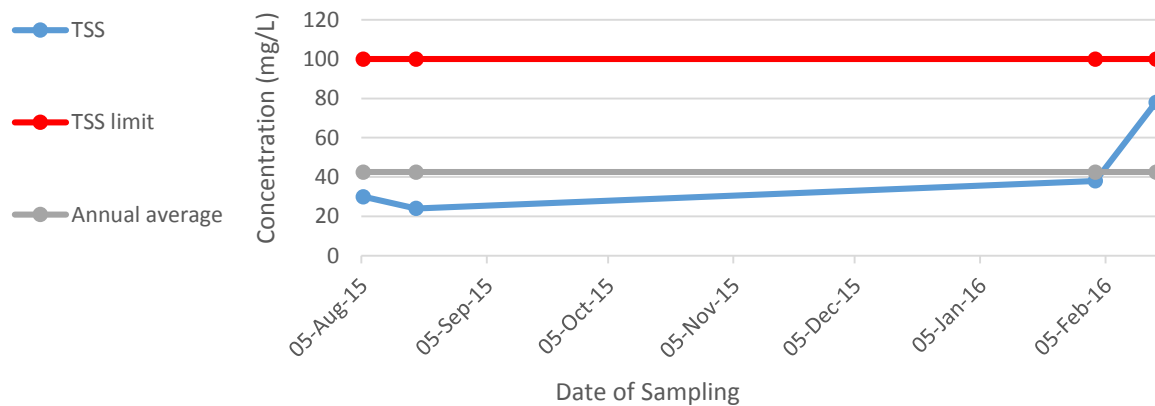
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.52	<4.0	30	36
18-Aug-15	7.44	<4.0	24	28
02-Feb-16	7.15	<4.0	38	24
17-Feb-16	7.25	<4.0	78	40

All values are in mg/L except pH

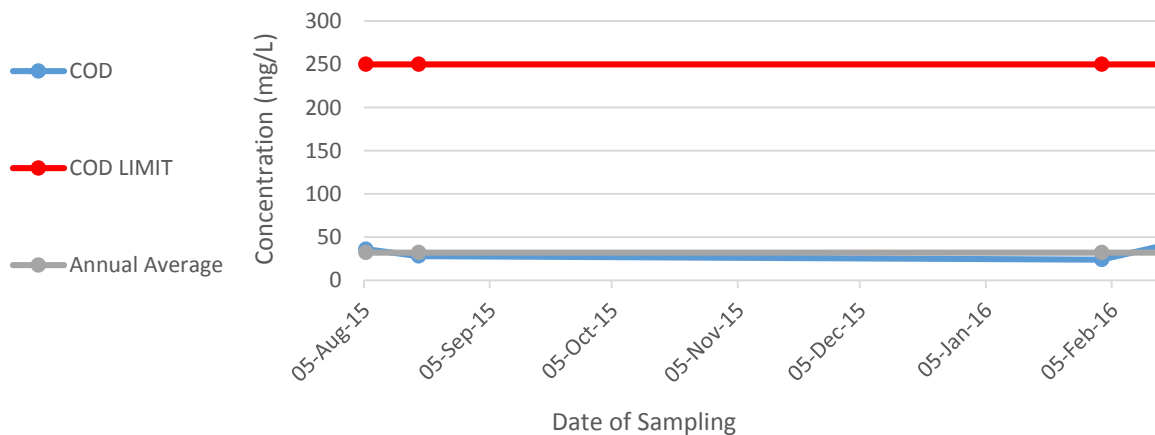
Graph showing for pH 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala



Graph showing for TSS 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala



Graph showing for COD 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala

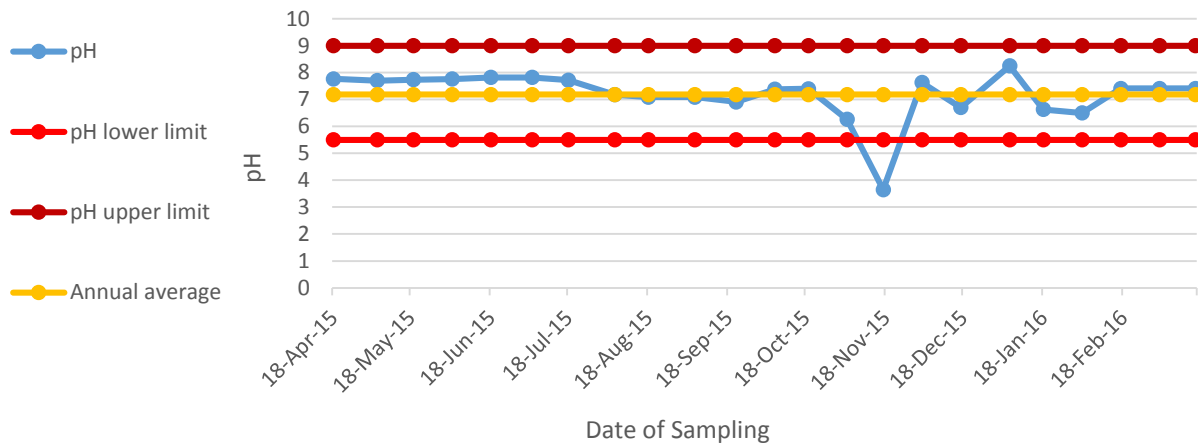


Project: Kulda OCP
Monitoring Station: Final Discharge point of mine
Table 130

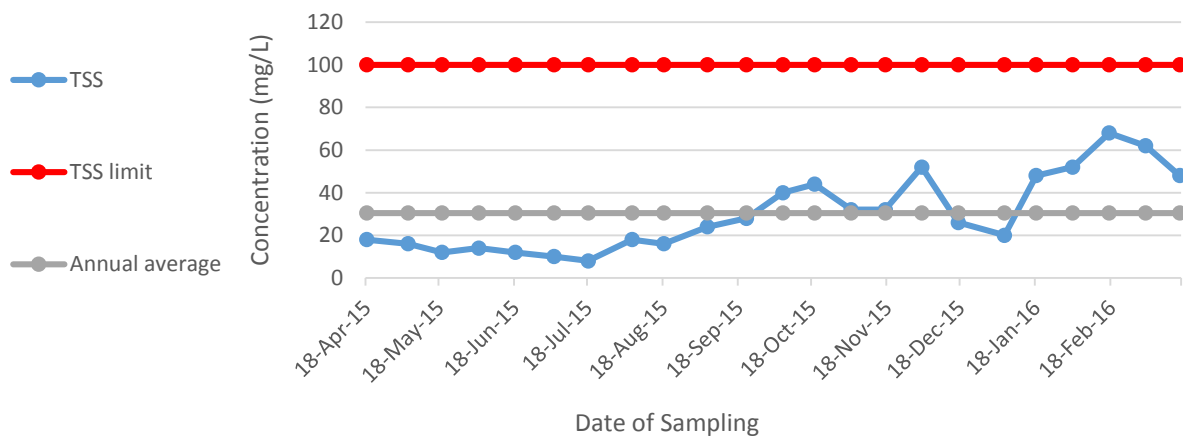
Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.77	<4.0	18	32
05-May-15	7.7	<4.0	16	20
19-May-15	7.74	<4.0	12	20
03-Jun-15	7.76	<4.0	14	20
18-Jun-15	7.82	<4.0	12	16
04-Jul-15	7.82	<4.0	10	24
18-Jul-15	7.72	<4.0	8	16
05-Aug-15	7.18	<4.0	18	32
18-Aug-15	7.09	<4.0	16	36
05-Sep-15	7.09	<4.0	24	28
21-Sep-15	6.91	<4.0	28	32
06-Oct-15	7.38	<4.0	40	32
19-Oct-15	7.4	<4.0	44	64
03-Nov-15	6.26	<4.0	32	28
17-Nov-15	3.65	<4.0	32	16
02-Dec-15	7.63	<4.0	52	28
17-Dec-15	6.7	<4.0	26	16
05-Jan-16	8.25	<4.0	20	16
18-Jan-16	6.63	<4.0	48	24
02-Feb-16	6.5	<4.0	52	112
17-Feb-16	7.41	<4.0	68	52
03-Mar-16	7.41	<4.0	62	56
17-Mar-16	7.41	<4.0	48	36

All values are in mg/L except pH

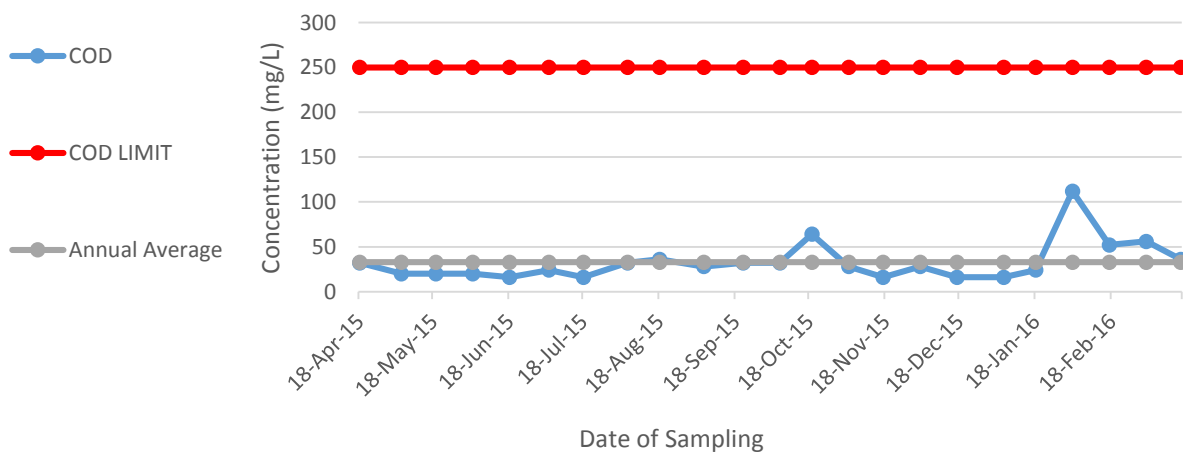
Graph showing for pH Final Discharge point of mine



Graph showing for TSS Final Discharge point of mine



Graph showing for COD Final Discharge point of mine



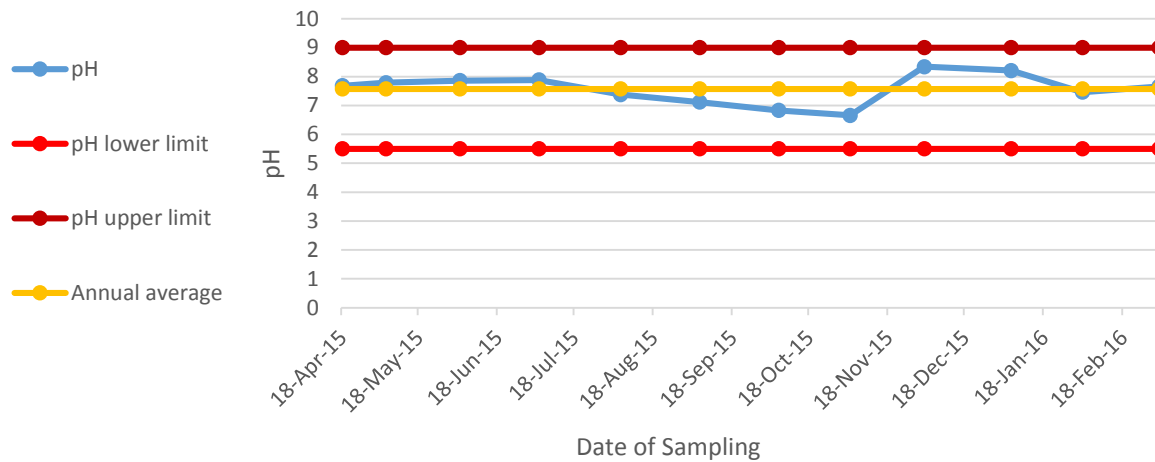
Project: Kulda OCP
Monitoring Station: Outlet to Settling Pond

Table 131

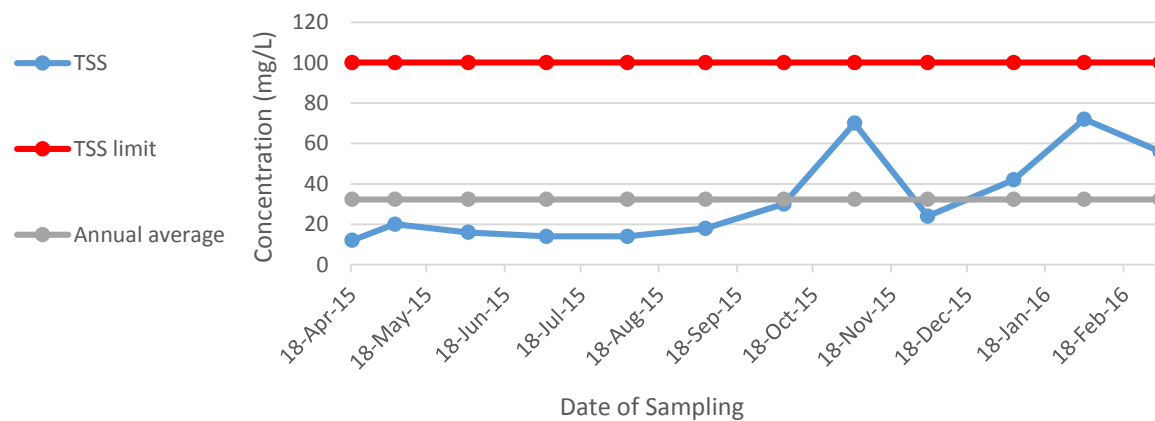
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.38	<4.0	14	24
18-Apr-15	7.68	<4.0	12	24
05-May-15	7.79	<4.0	20	32
03-Jun-15	7.86	<4.0	16	18
04-Jul-15	7.88	<4.0	14	28
05-Sep-15	7.12	<4.0	18	32
06-Oct-15	6.83	<4.0	30	24
03-Nov-15	6.66	<4.0	70	64
02-Dec-15	8.34	<4.0	24	24
05-Jan-16	8.21	<4.0	42	28
02-Feb-16	7.46	<4.0	72	56
03-Mar-16	7.66	<4.0	56	52

All values are in mg/L except pH

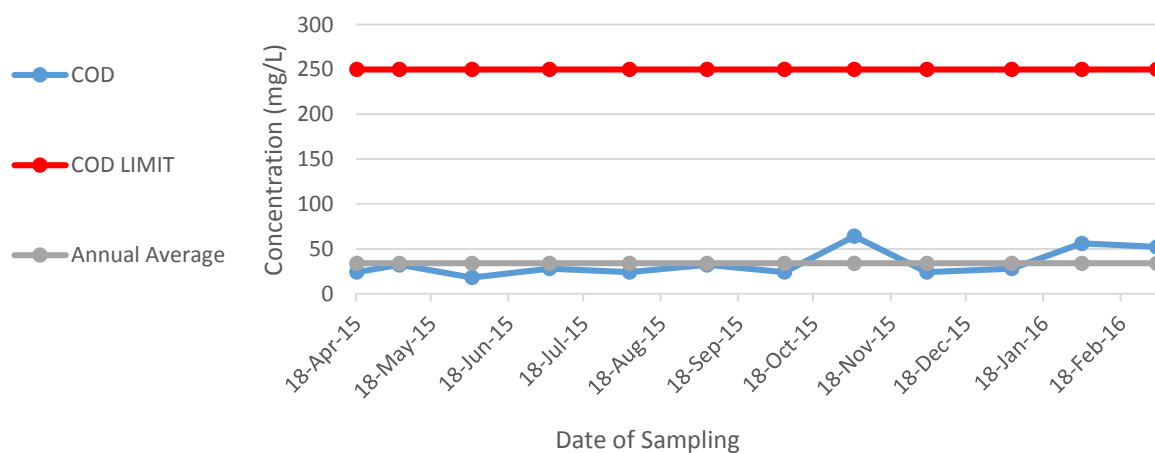
Graph showing for pH Outlet of Settling Pond



Graph showing for TSS Outlet of Settling Pond



Graph showing for COD Outlet of Settling Pond

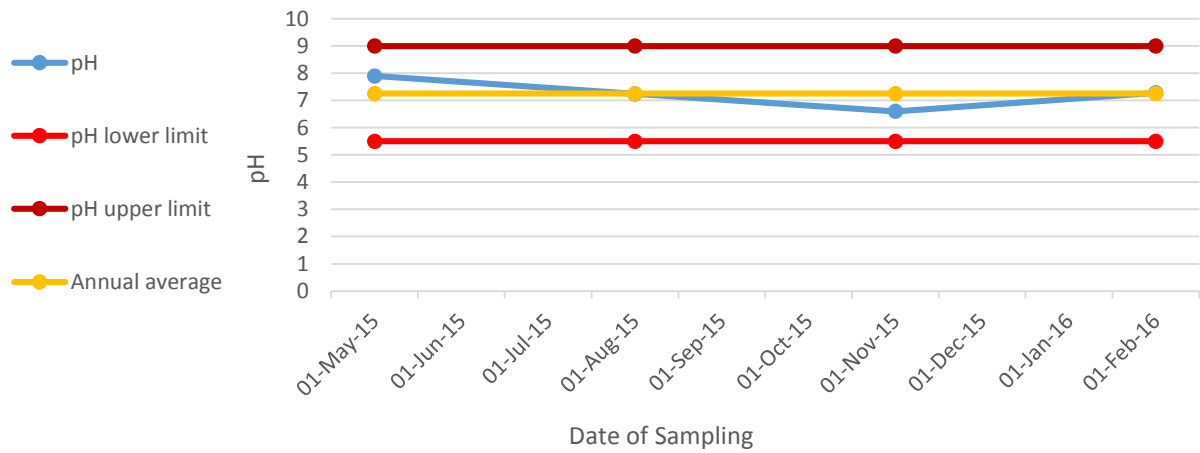


Project: Kulda OCP
Monitoring Station: Inlet to Settling Pond
Table 132

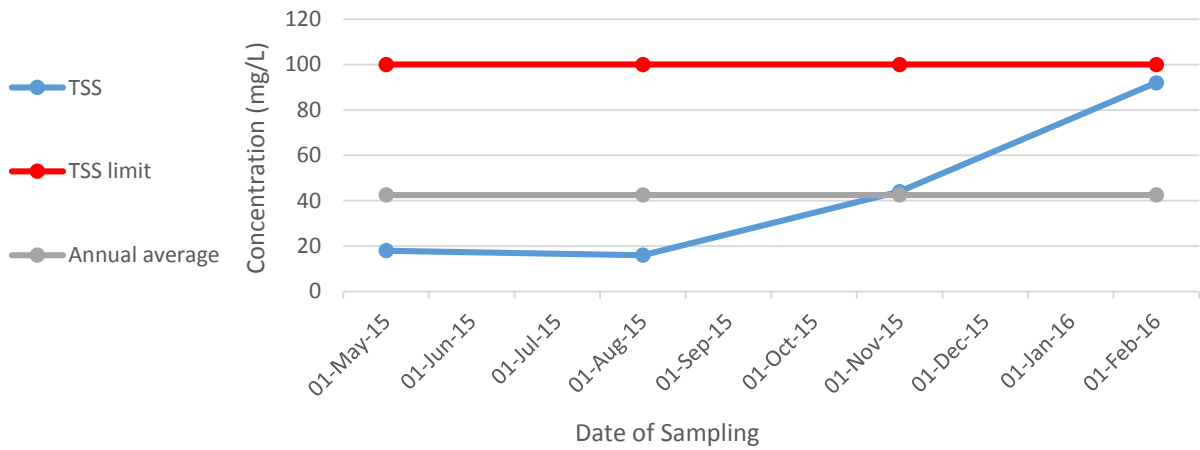
Date of Sampling	pH	Oil & Grease	TSS	COD
05-May-15	7.9	<4.0	18	28
05-Aug-15	7.24	<4.0	16	28
03-Nov-15	6.6	<4.0	44	48
02-Feb-16	7.28	<4.0	92	64

All values are in mg/L except pH

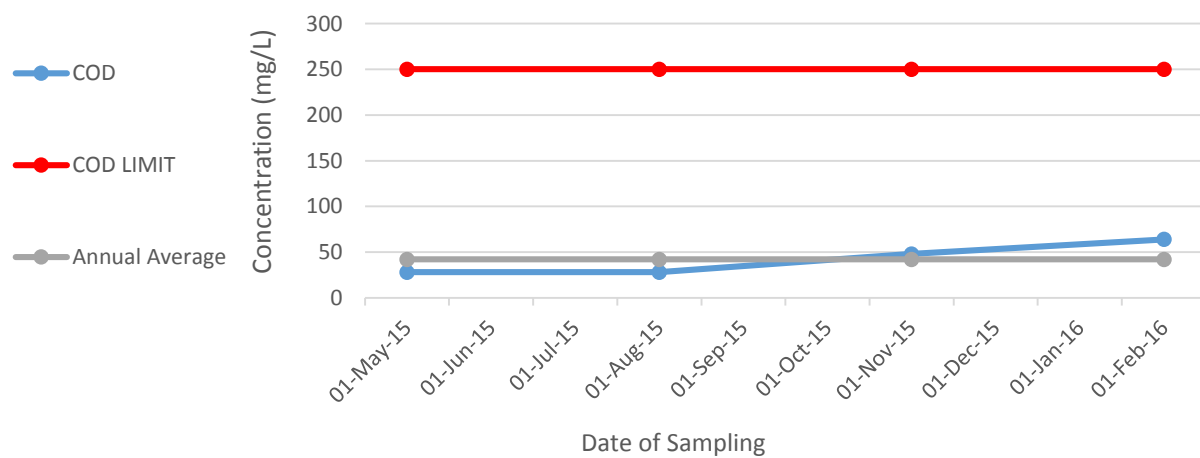
Graph showing for pH Inlet to Settling Pond



Graph showing for TSS Inlet to Settling Pond



Graph showing for COD Inlet to Settling Pond



Project: Kulda OCP
Monitoring Station: Final Discharge Point

Table 133

Area	Basundhara	MoEF-Sch-VI Standards
Date	3.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.6	
Nitrate Nitrogen	1.8	10
Ammonia Nitrogen	0.28	50
Total Kjeldahl Nitrogen	2.26	100
BOD	6	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.16	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.32	2
Dis. PO ₄	0.22	5
Sulphide	0.003	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.15	3

All values are in mg/L except pH

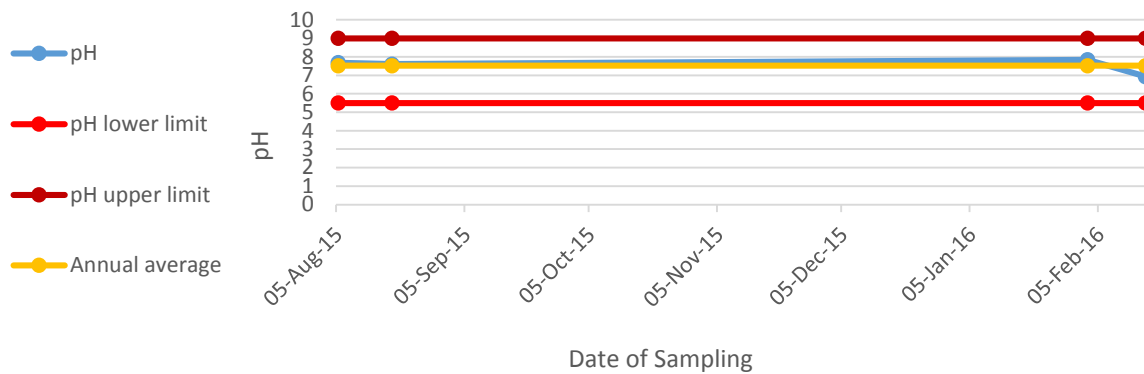
Project: Basundhara OCP
Monitoring Station: 100m d/s of point of confluence of natural mine water
drain to Basundhara Nala

Table 134

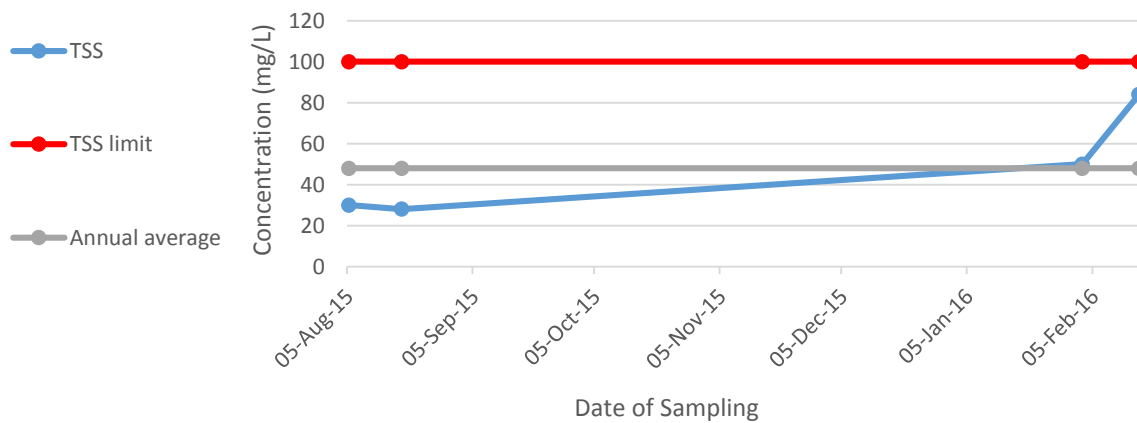
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.68	<4.0	30	46
18-Aug-15	7.6	<4.0	28	44
16-Feb-16	6.93	<4.0	84	72
02-Feb-16	7.84	<4.0	50	56

All values are in mg/L except pH

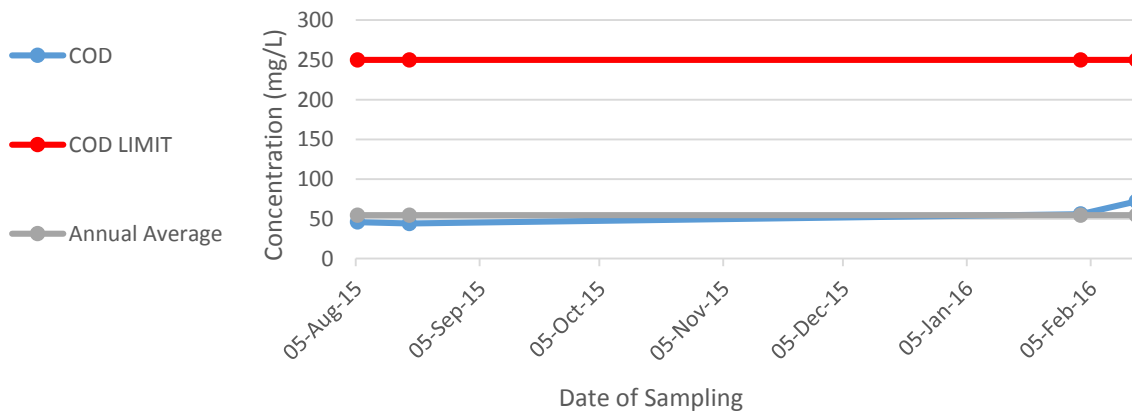
Graph showing for pH for 100 d/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for TSS for 100 d/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for COD for 100 d/s of point of confluence of natural mine water drain to Basundhara Nala



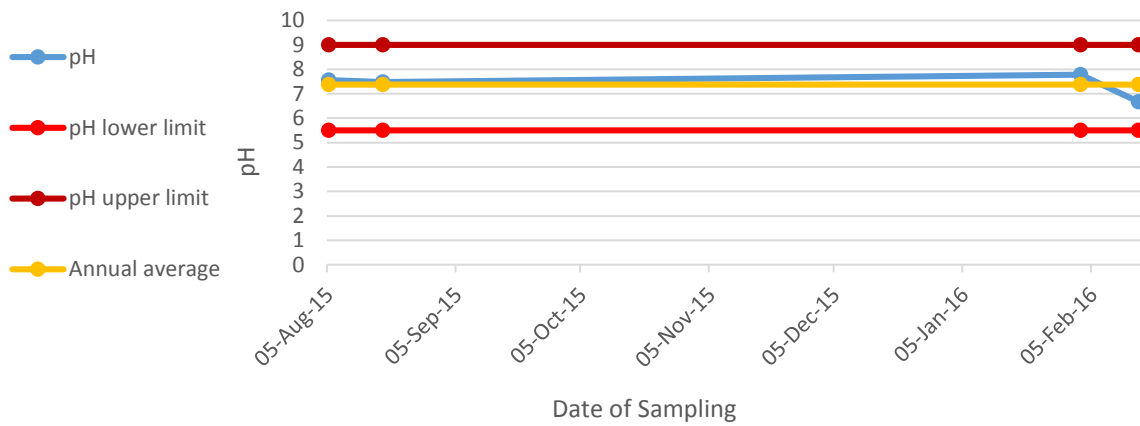
Project: Basundhara OCP
Monitoring Station: 100m u/s of point of confluence of natural mine water
drain to Basundhara Nala

Table 135

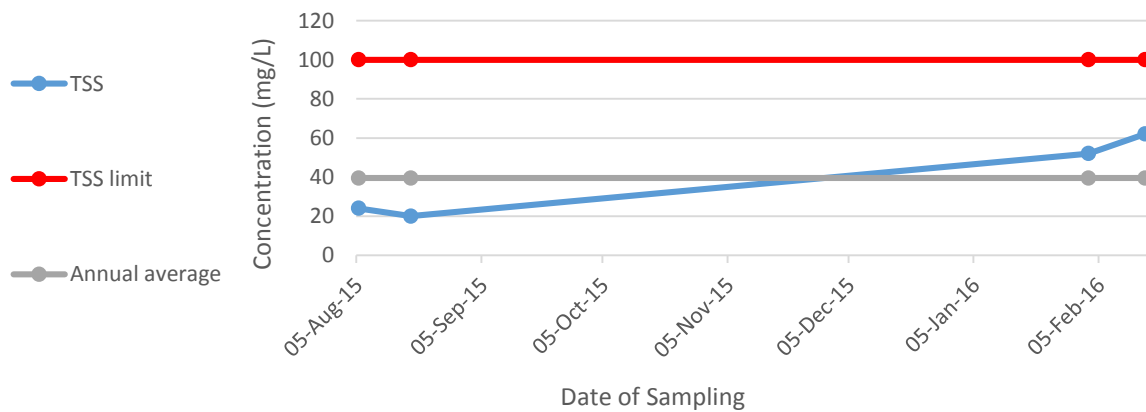
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.56	<4.0	24	44
18-Aug-15	7.48	<4.0	20	36
16-Feb-16	6.67	<4.0	62	36
02-Feb-16	7.78	<4.0	52	48

All values are in mg/L except pH

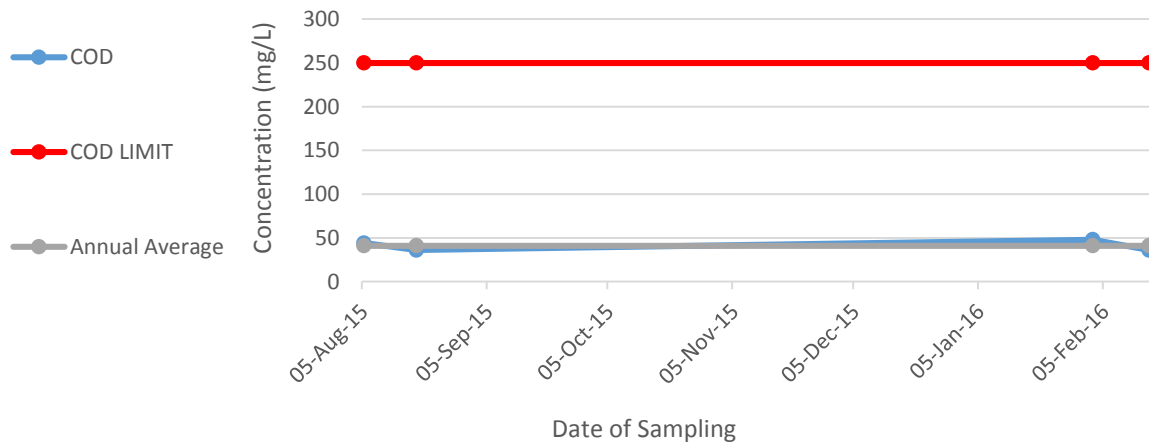
Graph showing for pH for 100 u/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for TSS for 100 u/s of point of confluence of natural mine water drain to Basundhara Nala



Graph showing for COD for 100 u/s of point of confluence of natural mine water drain to Basundhara Nala



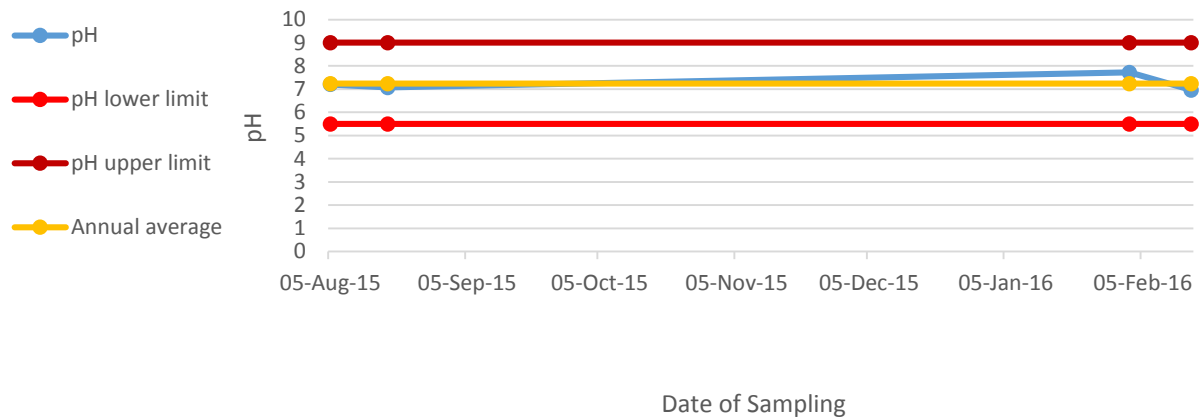
Project: Basundhara OCP
Monitoring Station: 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala

Table 136

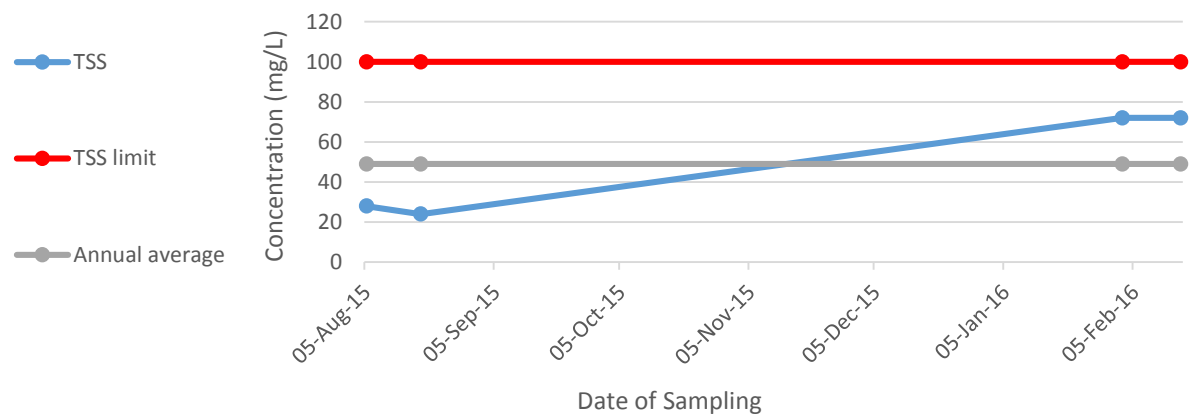
Date of Sampling	pH	Oil & Grease	TSS	COD
05-Aug-15	7.2	<4.0	28	40
18-Aug-15	7.07	<4.0	24	40
02-Feb-16	7.72	<4.0	72	124
16-Feb-16	6.96	<4.0	72	96

All values are in mg/L except pH

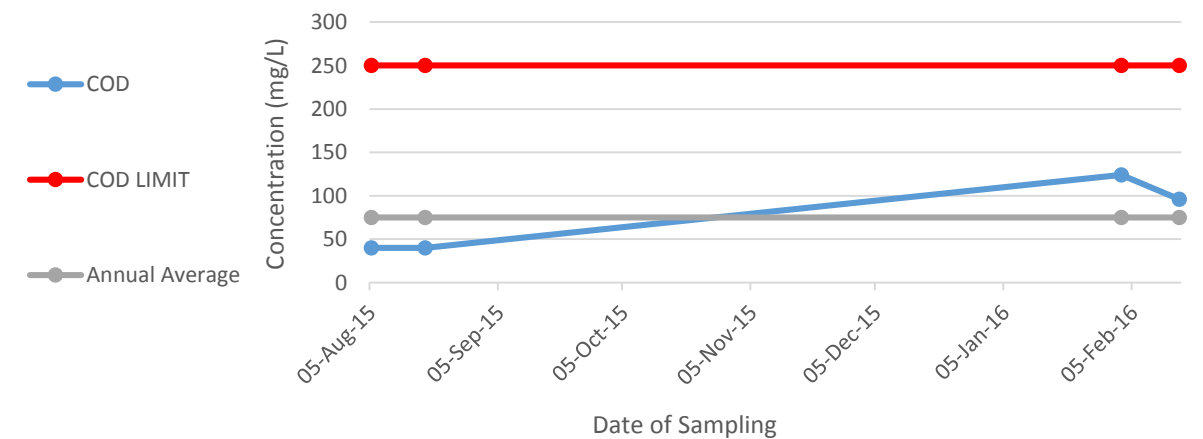
Graph showing for pH 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala



Graph showing for TSS for 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala



Graph showing for COD for 50m before the point of confluence of natural drain of mine pumped water to Basundhara Nala

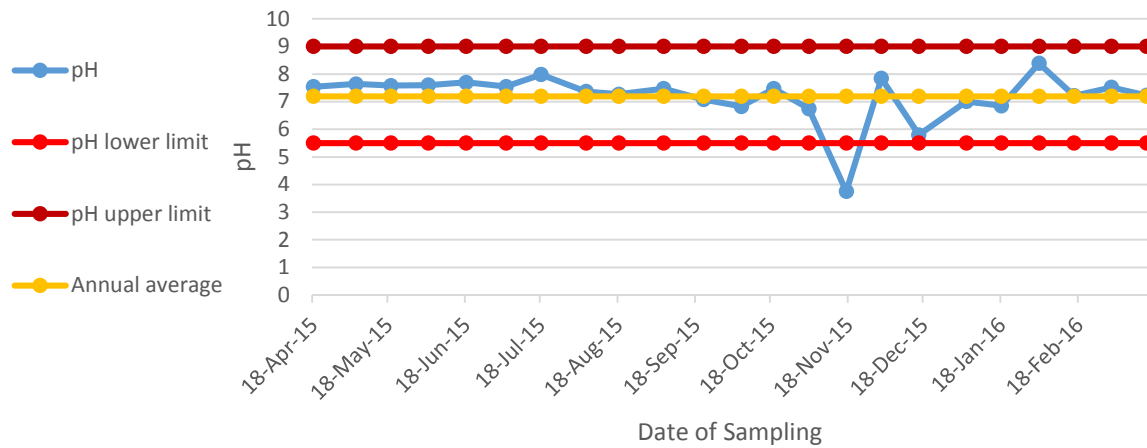


Project: Basundhara OCP
Monitoring Station: O&G Trap outlet
Table 137

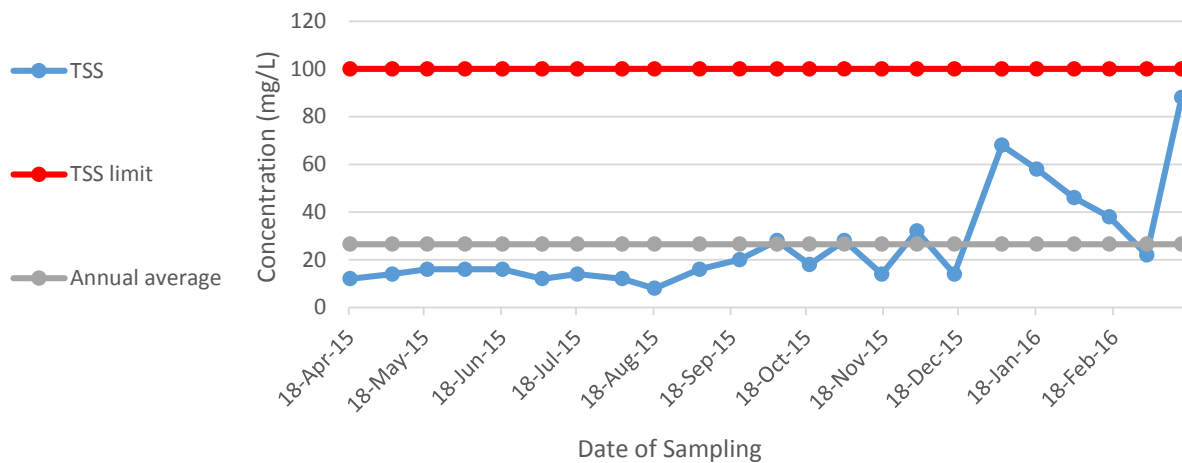
Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.54	<4.0	12	20
05-May-15	7.64	<4.0	14	20
19-May-15	7.58	<4.0	16	24
03-Jun-15	7.6	<4.0	16	18
18-Jun-15	7.7	<4.0	16	20
04-Jul-15	7.55	<4.0	12	20
18-Jul-15	7.98	<4.0	14	28
05-Aug-15	7.37	<4.0	12	24
18-Aug-15	7.27	<4.0	8	16
05-Sep-15	7.47	<4.0	16	24
21-Sep-15	7.08	<4.0	20	32
06-Oct-15	6.83	<4.0	28	32
19-Oct-15	7.47	<4.0	18	32
02-Nov-15	6.75	<4.0	28	36
17-Nov-15	3.75	<4.0	14	16
01-Dec-15	7.84	<4.0	32	16
16-Dec-15	5.8	<4.0	14	20
04-Jan-16	7.01	<4.0	68	64
18-Jan-16	6.85	<4.0	58	70
02-Feb-16	8.39	<4.0	46	60
16-Feb-16	7.22	<4.0	38	24
02-Mar-16	7.52	<4.0	22	16
16-Mar-16	7.23	<4.0	88	220

All values are in mg/L except pH

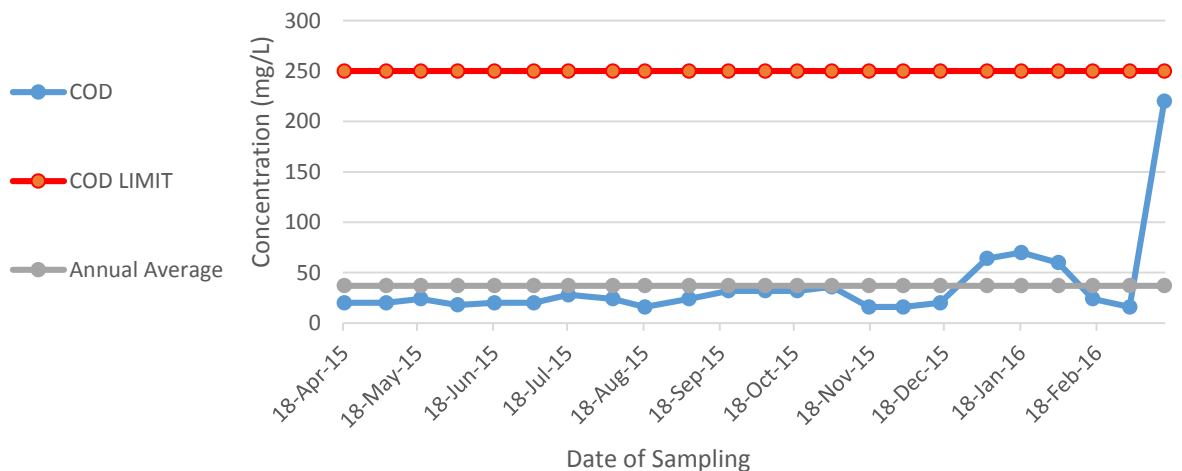
Graph showing for pH O&G Trap outlet



Graph showing for TSS O&G Trap outlet



Graph showing for COD O&G Trap outlet

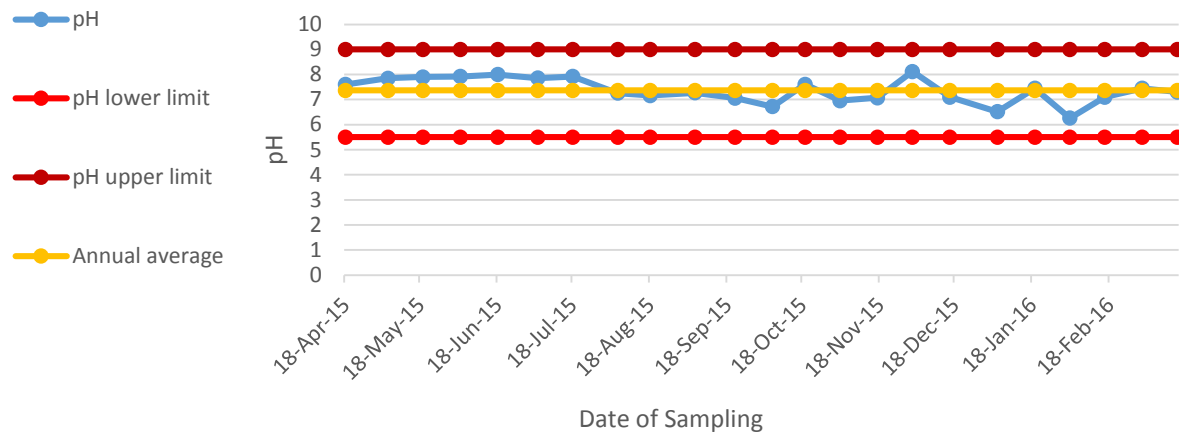


Project: Basundhara OCP
Monitoring Station: Outlet of settling pond near Kanika Railway siding
Table 138

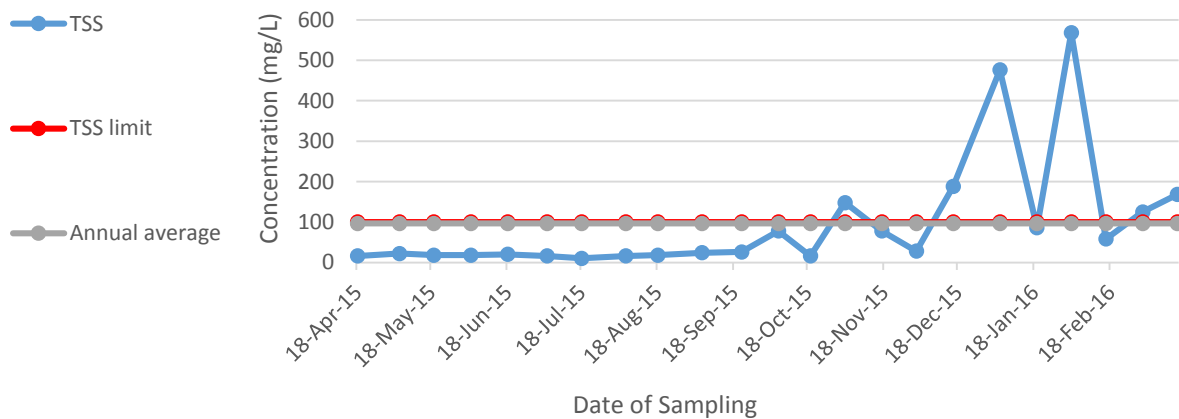
Date of Sampling	pH	Oil & Grease	TSS	COD
18-Apr-15	7.6	<4.0	16	20
05-May-15	7.85	<4.0	22	36
19-May-15	7.9	<4.0	18	32
03-Jun-15	7.92	<4.0	18	16
18-Jun-15	8	<4.0	20	24
04-Jul-15	7.86	<4.0	16	32
18-Jul-15	7.92	<4.0	10	20
05-Aug-15	7.26	<4.0	16	32
18-Aug-15	7.16	<4.0	18	36
05-Sep-15	7.27	<4.0	24	32
21-Sep-15	7.06	<4.0	26	36
06-Oct-15	6.72	<4.0	78	64
19-Oct-15	7.61	<4.0	16	32
02-Nov-15	6.96	<4.0	148	160
17-Nov-15	7.07	<4.0	78	92
01-Dec-15	8.12	<4.0	28	16
16-Dec-15	7.1	<4.0	188	282
04-Jan-16	6.52	<4.0	476	256
19-Jan-16	7.45	<4.0	86	60
02-Feb-16	6.26	<4.0	568	376
16-Feb-16	7.1	<4.0	58	28
02-Mar-16	7.45	<4.0	125	260
16-Mar-16	7.3	<4.0	168	364

All values are in mg/L except pH

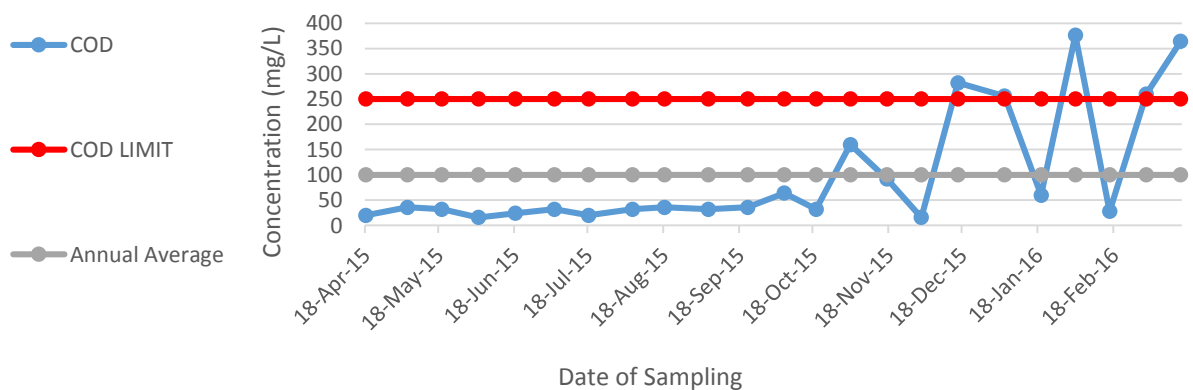
Graph showing for pH Outlet of settling pond near Kanika
Railway siding



Graph showing for TSS Outlet of settling pond near Kanika
Railway siding



Graph showing for COD Outlet of settling pond near Kanika
Railway siding

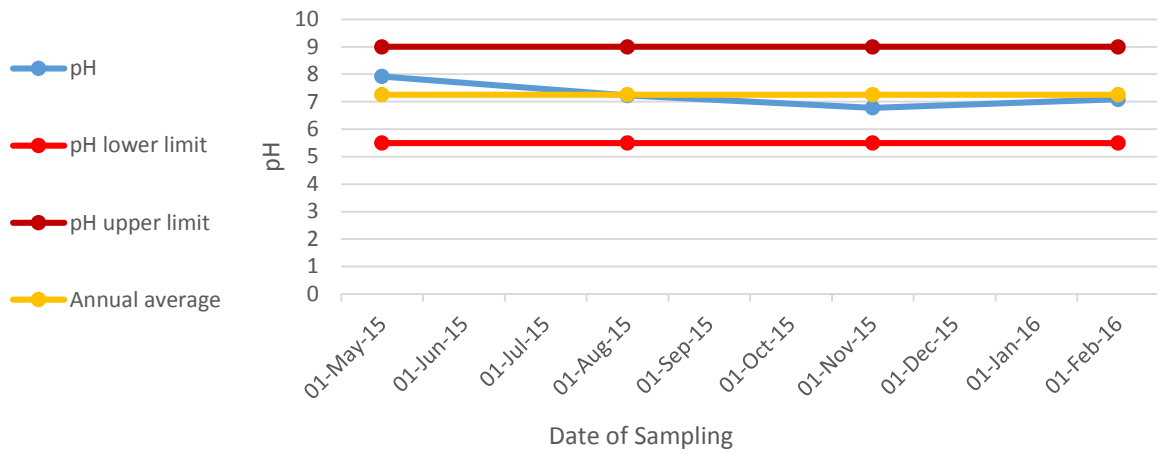


Project: Basundhara OCP
Monitoring Station: Settling tank / abandoned quarry of Basundhara-E
Table 139

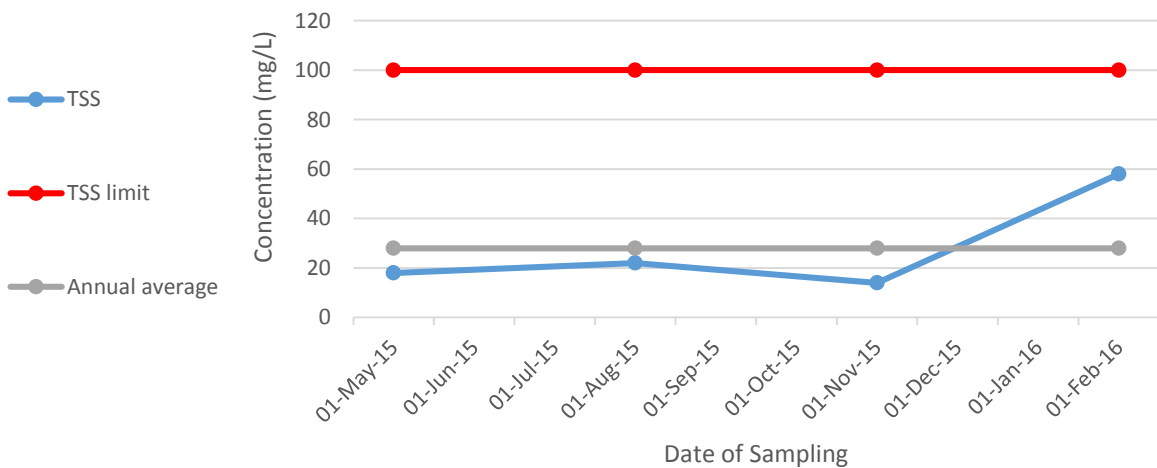
Date of Sampling	pH	Oil & Grease	TSS	COD
05-May-15	7.92	<4.0	18	28
05-Aug-15	7.23	<4.0	22	44
02-Nov-15	6.78	<4.0	14	16
02-Feb-16	7.09	<4.0	58	84

All values are in mg/L except pH

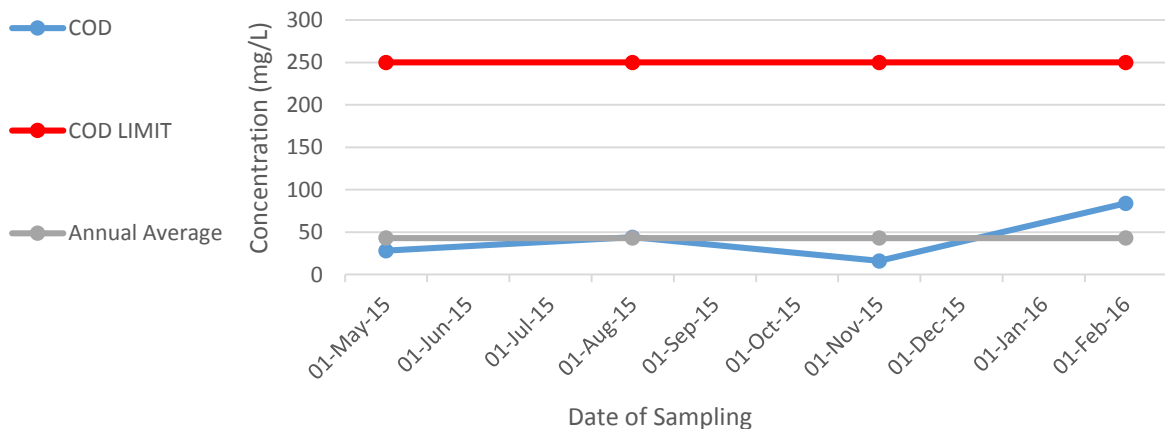
Graph showing for pH Settling tank / abandoned quarry of Basundhara-E



Graph showing for TSS Settling tank / abandoned quarry of Basundhara-E



Graph showing for COD Settling tank / abandoned quarry of Basundhara-E



Project: Basundhara OCP
Monitoring Station: Outlet to settling Pond near Kanika Railway Siding.

Table 140

Area	Basundhara	MoEF-Sch-VI Standards
Date	3.11.2015	
Color	Acceptable	Acceptable
Odour	Agreeable	Agreeable
Temp. °C	23.6	
Nitrate Nitrogen	1.9	10
Ammonia Nitrogen	0.14	50
Total Kjeldahl Nitrogen	2.16	100
BOD	10	30
Arsenic	<0.01	0.2
Lead	<0.05	0.1
Hexavalent Chromium	<0.01	0.1
Total Chromium	<0.1	2
Copper	<0.02	3
Zinc	0.16	5
Cadmium	<0.0005	2.0
Selenium	<0.01	0.05
Nickel	<0.1	3
Flouride	0.28	2
Dis. PO ₄	0.16	5
Sulphide	0.004	2
Phenols	<0.001	1
Manganese	<0.05	2
Iron	0.18	3

All values are in mg/L except pH

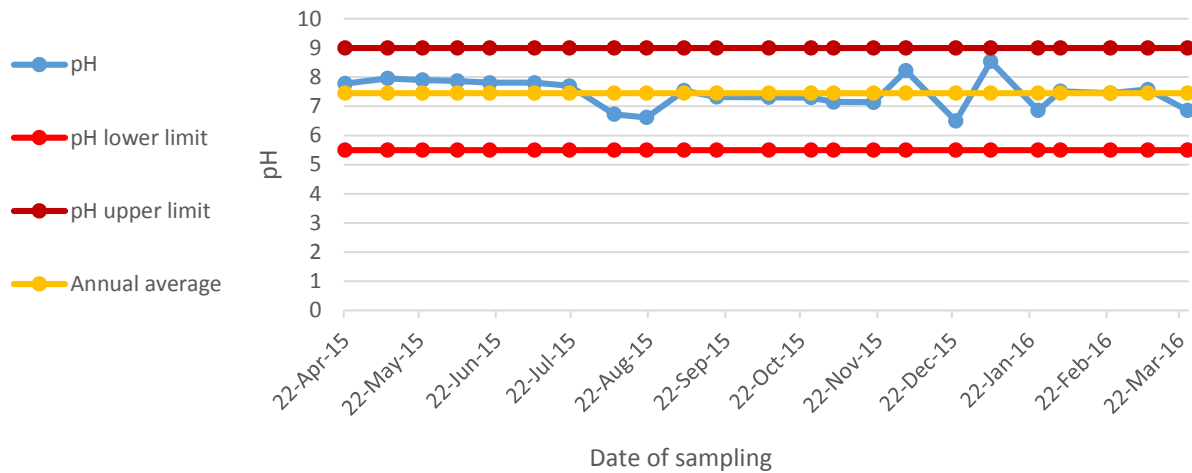
Project: Orient
Monitoring Station: Discharge of HBI mine

Table 141

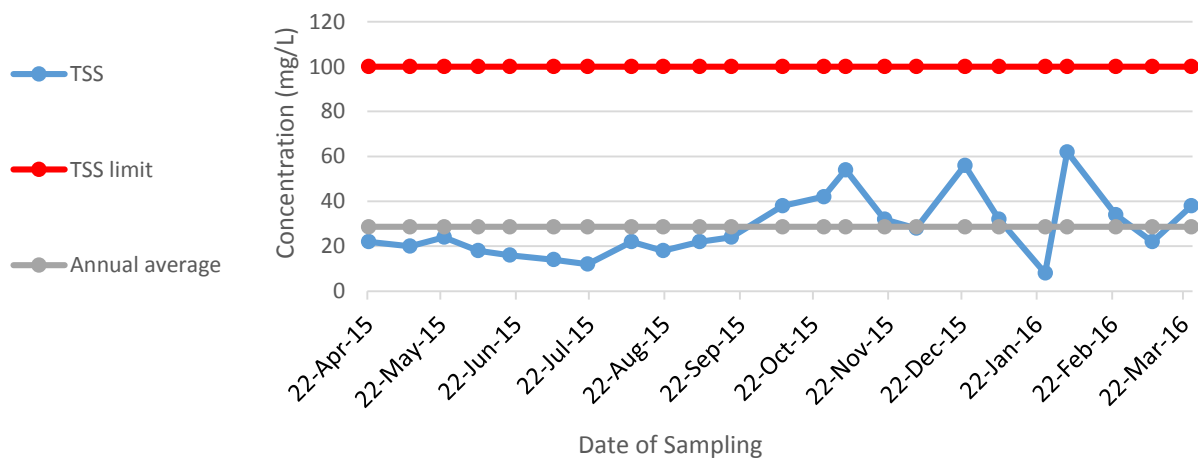
Date of Sampling	pH	Oil & Grease	TSS	COD
22-Apr-15	7.78	<4.0	22	32
09-May-15	7.96	<4.0	20	31
23-May-15	7.9	<4.0	24	36
06-Jun-15	7.87	<4.0	18	20
19-Jun-15	7.81	<4.0	16	24
07-Jul-15	7.81	<4.0	14	28
21-Jul-15	7.7	<4.0	12	28
08-Aug-15	6.73	<4.0	22	44
21-Aug-15	6.62	<4.0	18	40
05-Sep-15	7.54	<4.0	22	36
18-Sep-15	7.32	<4.0	24	32
09-Oct-15	7.31	<4.0	38	64
26-Oct-15	7.3	<4.0	42	64
04-Nov-15	7.15	<4.0	54	64
20-Nov-15	7.14	<4.0	32	24
03-Dec-15	8.22	<4.0	28	16
23-Dec-15	6.5	<4.0	56	32
06-Jan-16	8.54	<4.0	32	16
25-Jan-16	6.86	<4.0	8	16
03-Feb-16	7.52	<4.0	62	44
23-Feb-16	7.45	<4.0	34	24
09-Mar-16	7.58	<4.0	22	16
25-Mar-16	6.86	<4.0	38	28

All values are in mg/L except pH

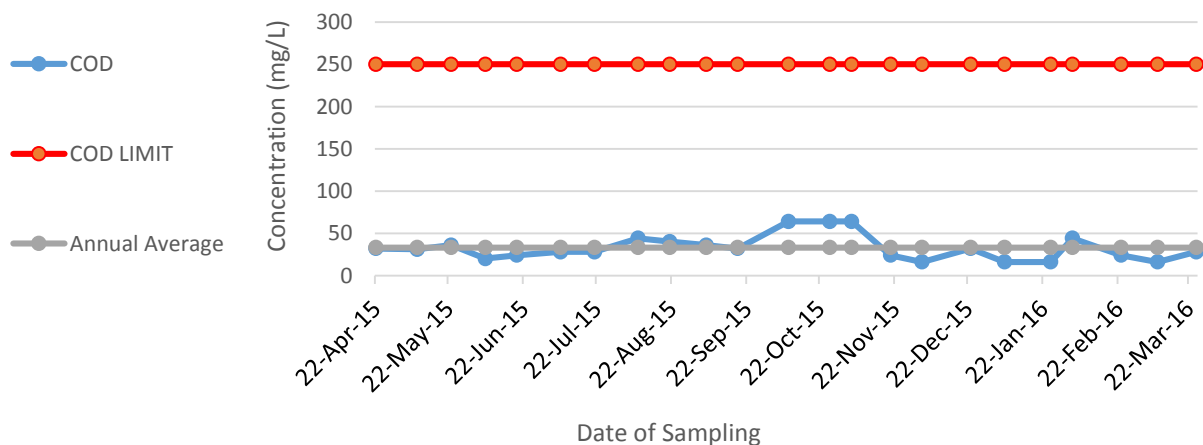
Graph showing pH for Discharge of HBI Mine



Graph showing TSS for Discharge of HBI Mine



Graph showing COD for Discharge of HBI Mine



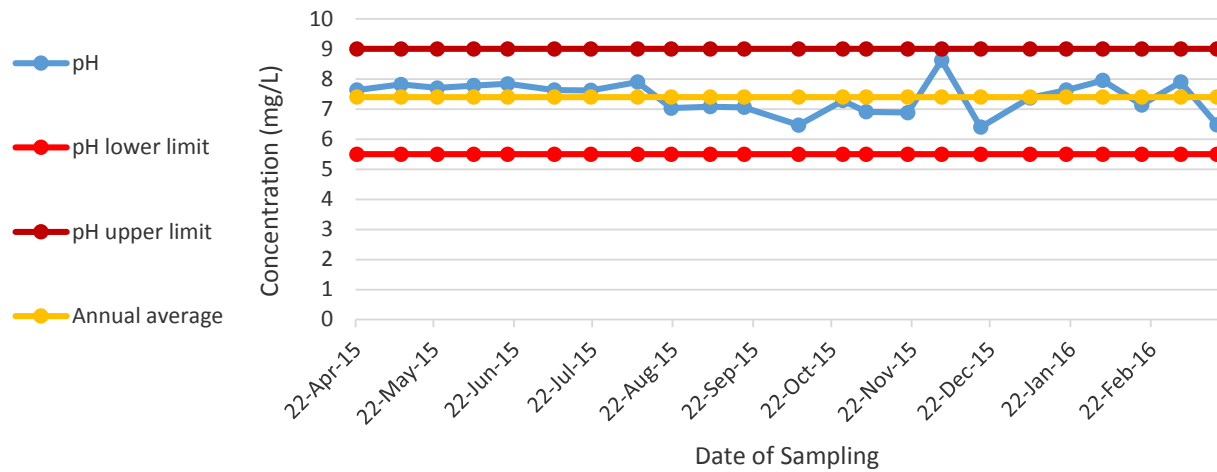
Project: Orient
Monitoring Station: Discharge of mine no 2

Table 142

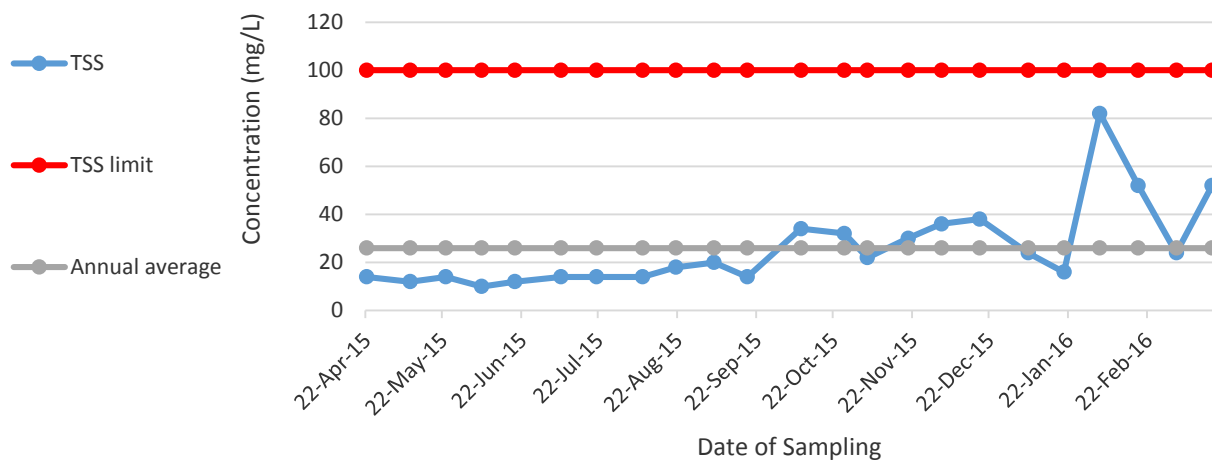
Date of Sampling	pH	Oil & Grease	TSS	COD
22-Apr-15	7.63	<4.0	14	16
09-May-15	7.82	<4.0	12	16
23-May-15	7.7	<4.0	14	16
06-Jun-15	7.78	<4.0	10	30
19-Jun-15	7.84	<4.0	12	24
07-Jul-15	7.63	<4.0	14	32
21-Jul-15	7.62	<4.0	14	34
08-Aug-15	7.9	<4.0	14	28
21-Aug-15	7.03	<4.0	18	36
05-Sep-15	7.08	<4.0	20	32
18-Sep-15	7.06	<4.0	14	24
09-Oct-15	6.47	<4.0	34	32
26-Oct-15	7.28	<4.0	32	64
04-Nov-15	6.91	<4.0	22	20
20-Nov-15	6.88	<4.0	30	24
03-Dec-15	8.62	<4.0	36	20
18-Dec-15	6.4	<4.0	38	48
06-Jan-16	7.37	<4.0	24	16
20-Jan-16	7.63	<4.0	16	12
03-Feb-16	7.95	<4.0	82	68
18-Feb-16	7.14	<4.0	52	24
04-Mar-16	7.9	<4.0	24	20
18-Mar-16	6.48	<4.0	52	24

All values are in mg/L except pH

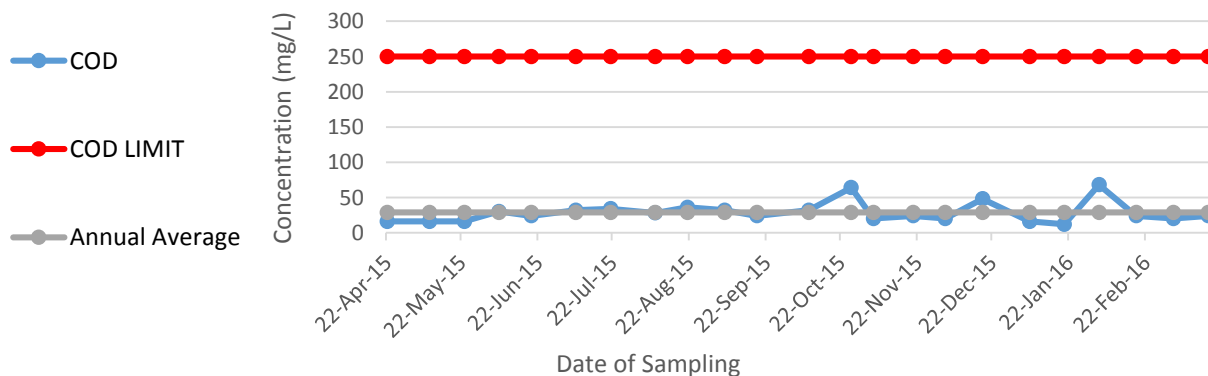
Graph Showing pH for Discharge of Mine No.2



Graph showing TSS for Discharge of Mine No.2



Graph showing COD for Discharge of Mine No.2

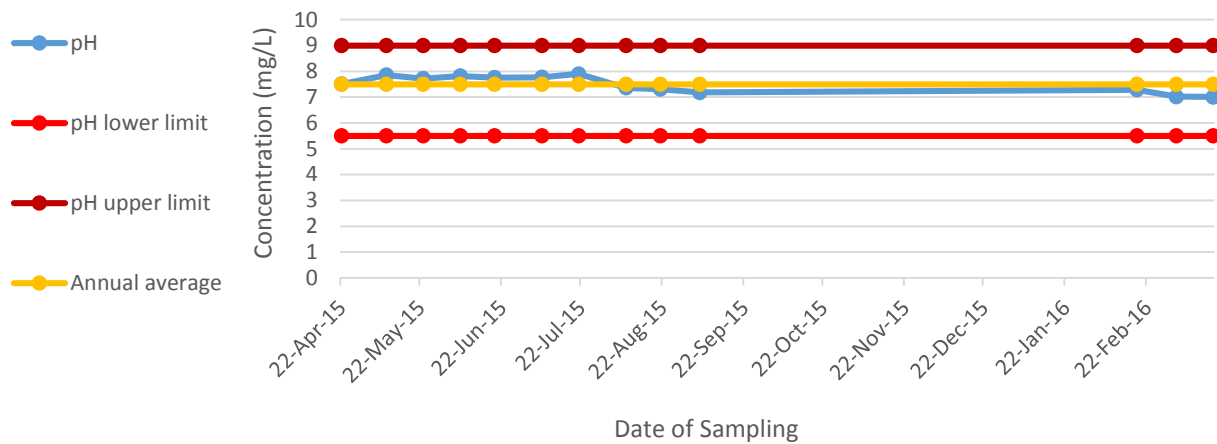


Project: Orient
Monitoring Station: Discharge of mine no 3
Table 143

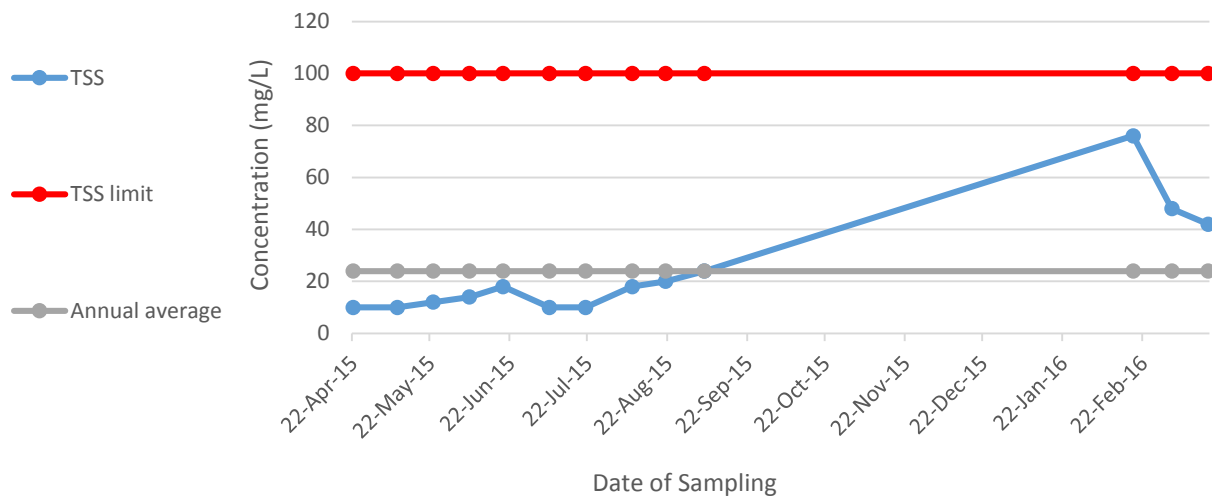
Date of Sampling	pH	Oil & Grease	TSS	COD
22-Apr-15	7.51	<4.0	10	12
09-May-15	7.86	<4.0	10	24
23-May-15	7.72	<4.0	12	20
06-Jun-15	7.82	<4.0	14	16
19-Jun-15	7.76	<4.0	18	28
07-Jul-15	7.77	<4.0	10	24
21-Jul-15	7.9	<4.0	10	24
08-Aug-15	7.36	<4.0	18	36
21-Aug-15	7.31	<4.0	20	40
05-Sep-15	7.18	<4.0	24	36
18-Feb-16	7.29	<4.0	76	36
04-Mar-16	7.02	<4.0	48	36
18-Mar-16	7.01	<4.0	42	32

All values are in mg/L except pH

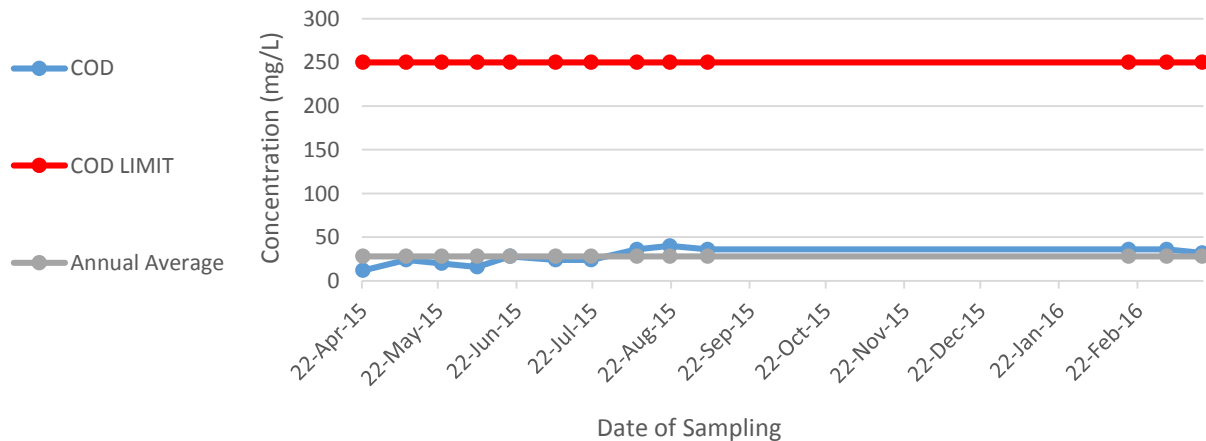
Graph showing pH for Discharge of Mine No.3



Graph showing TSS for Discharge of Mine No.3



Graph showing COD for Discharge of Mine No.3

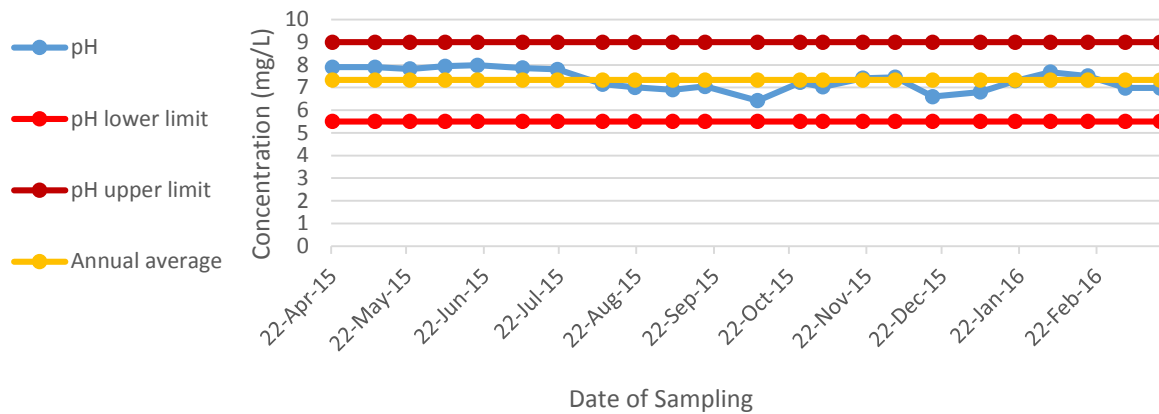


Project: Orient
Monitoring Station: Discharge of mine no 4
Table 144

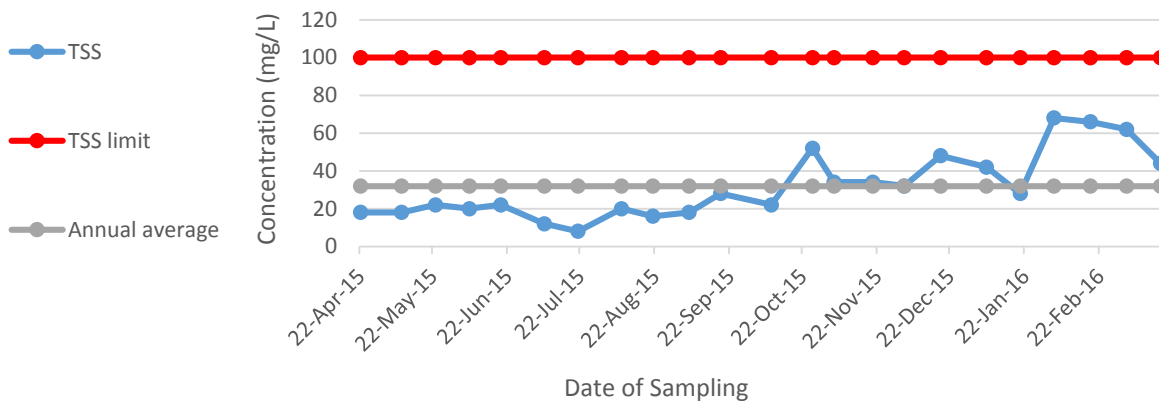
Date of Sampling	pH	Oil & Grease	TSS	COD
22-Apr-15	7.9	<4.0	18	28
09-May-15	7.9	<4.0	18	26
23-May-15	7.82	<4.0	22	32
06-Jun-15	7.94	<4.0	20	18
19-Jun-15	7.98	<4.0	22	32
07-Jul-15	7.86	<4.0	12	20
21-Jul-15	7.8	<4.0	8	20
08-Aug-15	7.15	<4.0	20	40
21-Aug-15	7.01	<4.0	16	32
05-Sep-15	6.9	<4.0	18	32
18-Sep-15	7.05	<4.0	28	40
09-Oct-15	6.42	<4.0	22	32
26-Oct-15	7.23	<4.0	52	64
04-Nov-15	7.03	<4.0	34	28
20-Nov-15	7.41	<4.0	34	28
03-Dec-15	7.45	<4.0	32	16
18-Dec-15	6.6	<4.0	48	36
06-Jan-16	6.8	<4.0	42	20
20-Jan-16	7.3	<4.0	28	16
03-Feb-16	7.68	<4.0	68	48
18-Feb-16	7.51	<4.0	66	48
04-Mar-16	6.98	<4.0	62	48
18-Mar-16	6.98	<4.0	44	24

All values are in mg/L except pH

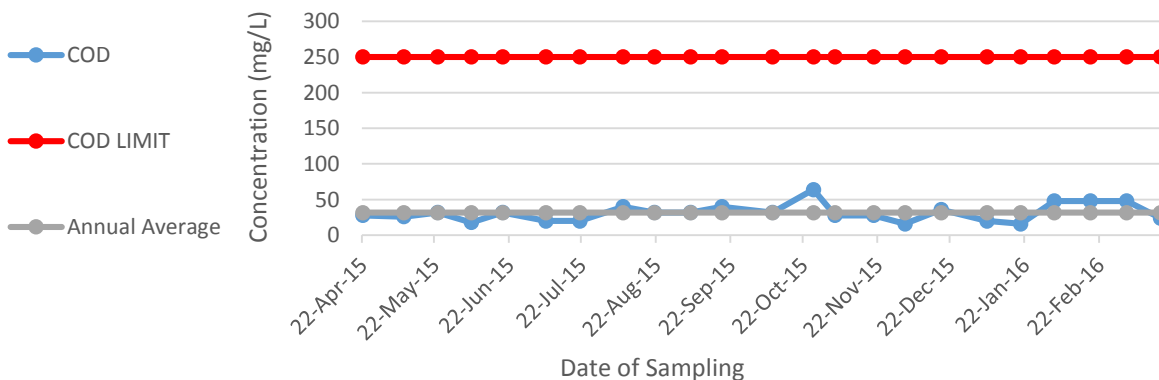
Graph showing pH for Discharge of Mine No.4



Graph showing TSS for Discharge of Mine No.4



Graph showing COD for Discharge of Mine No.4



Project: Orient Area

Table 145

Area	Orient	Orient	Orient	MoEF-Sch-VI Standards
Project	Orient Project	Orient Project	HBI	
Sampling station	Mine dis. From mine no. 2	Mine dis. From mine no. 4	Mine dis. From HBI mine	
Date	9.11.2015	9.11.2015	9.11.2015	
Color	Acceptable	Acceptable	Acceptable	Acceptable
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Temp. °C	23.6	23.7	23.6	
Nitrate Nitrogen	2.2	2.2	2	10
Ammonia Nitrogen	0.16	0.2	0.2	50
Total Kjeldahl Nitrogen	2.28	1.82	1.86	100
BOD	12	8	12	30
Arsenic	<0.01	<0.01	<0.01	0.2
Lead	<0.05	<0.05	<0.05	0.1
Hexavalent Chromium	<0.01	<0.01	<0.01	0.1
Total Chromium	<0.1	<0.1	<0.1	2
Copper	<0.02	<0.02	<0.02	3
Zinc	0.12	0.1	0.16	5
Cadmium	<0.0005	<0.0005	<0.0005	2.0
Selenium	<0.01	<0.01	<0.01	0.05
Nickel	<0.01	<0.1	<0.1	3
Flouride	0.58	0.62	0.64	2
Dis. PO ₄	0.66	0.72	0.74	5
Sulphide	0.005	0.003	0.003	2
Phenols	<0.001	<0.001	<0.001	1
Manganese	<0.05	<0.05	<0.05	2
Iron	0.16	0.14	0.11	3

All units are in mg/L

TABLES FOR DRINKING WATER QUALITY DATA

Table 146

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2014	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	3	1	10
pH	8.24	8.23	8.27	7.78	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	32	32	40	200	600
Total Hardness(mg/L)	56	56	52	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	10	12	14	250	1000
Residual Free chlorine(mg/L)	0.17	0.14	0.14	0.18	0.2	—
Total Dissolve Solid(mg/L)	98	92	92	122	500	2000
Calcium(mg/L)	12.8	11.2	12.8	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	17	16	15	21	200	400
Nitrate(mg/L)	2.66	2.66	3.1	3.54	45	100
Fluoride(mg/L)	0.09	0.08	0.09	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	3.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	5	1	10
pH	7.74	7.76	7.73	7.93	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	40	36	68	200	600
Total Hardness(mg/L)	60	68	60	112	200	600
Iron(mg/L)	0.52	0.12	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	12	26	250	1000
Residual Free chlorine(mg/L)	0.14	0.13	0.11	0.11	0.2	—
Total Dissolve Solid(mg/L)	110	116	104	192	500	2000
Calcium(mg/L)	14.4	16	14.4	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	18	23	18	36	200	400
Nitrate(mg/L)	3.54	4.43	4.43	4.87	45	100
Fluoride(mg/L)	0.1	0.13	0.1	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.17	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Treated water from IWSS	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	2	3	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	12	1	10
pH	7.73	7.76	7.74	7.69	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	36	44	28	200	600
Total Hardness(mg/L)	60	64	72	48	200	600
Iron(mg/L)	0.52	<0.06		<0.06	0.3	1
Chloride(mg/L)	12	14	18	10	250	1000
Residual Free chlorine(mg/L)	0.11	0.1	0.14	nil	0.2	—
Total Dissolve Solid(mg/L)	105	114	128	82	500	2000
Calcium(mg/L)	14.4	14.4	16	11.2	75	200
Copper(mg/L)	0.04	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	19	19	24	16	200	400
Nitrate(mg/L)	4.43	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.11	0.12	0.11	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.08	0.03	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	3	4	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	8.26	8.28	8.28	8.12	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	72	68	68	200	600
Total Hardness(mg/L)	120	124	112	112	200	600
Iron(mg/L)	<0.06	0.06	0.06	0.06	0.3	1
Chloride(mg/L)	26	26	24	24	250	1000
Residual Free chlorine(mg/L)	0.13	0.11	0.11	0.12	0.2	—
Total Dissolve Solid(mg/L)	208	214	196	196	500	2000
Calcium(mg/L)	28.8	30.4	27.2	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	43	45	34	36	200	400
Nitrate(mg/L)	4.87	4.87	4.87	5.32	45	100
Fluoride(mg/L)	0.16	0.19	0.15	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	4	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	4	1	10
pH	8.06	8.02	7.98	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	60	60	24	200	600
Total Hardness(mg/L)	104	104	104	44	200	600
Iron(mg/L)	<0.06	0.14	<0.06	<0.06	0.3	1
Chloride(mg/L)	24	24	22	10	250	1000
Residual Free chlorine(mg/L)	0.11	0.12	0.16	0.13	0.2	—
Total Dissolve Solid(mg/L)	184	176	184	78	500	2000
Calcium(mg/L)	24	24	24	9.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	31	35	36	14	200	400
Nitrate(mg/L)	4.87	5.32	4.87	3.54	45	100
Fluoride(mg/L)	0.13	0.23	0.23	0.09	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	0.0013	0.0013	0.0013	0.0013	0.003	No relaxation
Zinc(mg/L)	<0.02	0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Chingriguda Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	3	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	7.96	7.95	8.15	7.94	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	59	68	64	56	200	600
Total Hardness(mg/L)	96	108	108	96	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	20	22	24	22	250	1000
Residual Free chlorine(mg/L)	0.11	0.13	0.11	0.11	0.2	—
Total Dissolve Solid(mg/L)	168	186	184	168	500	2000
Calcium(mg/L)	22.4	25.6	25.6	22.4	75	200
Copper(mg/L)	0.05	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	31	36	37	31	200	400
Nitrate(mg/L)	4.87	4.87	4.87	4.87	45	100
Fluoride(mg/L)	0.27	0.14	0.12	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0013	0.0013	0.0013	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.08	0.05	0.05	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	3	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	5	1	10
pH	7.42	7.44	7.46	7.44	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	28	28	28	200	600
Total Hardness(mg/L)	48	52	48	52	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	10	10	12	250	1000
Residual Free chlorine(mg/L)	0.14	0.16	0.11	0.15	0.2	—
Total Dissolve Solid(mg/L)	82	94	88	92	500	2000
Calcium(mg/L)	11.2	12.8	11.2	11.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	16	17	15	16	200	400
Nitrate(mg/L)	2.21	2.66	3.1	3.1	45	100
Fluoride(mg/L)	0.09	0.1	0.1	0.08	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	3	4	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	7.47	7.45	7.42	7.12	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	28	24	64	200	600
Total Hardness(mg/L)	48	56	48	104	200	600
Iron(mg/L)	<0.06	0.3	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	12	10	22	250	1000
Residual Free chlorine(mg/L)	0.13	0.1	0.14	0.13	0.2	—
Total Dissolve Solid(mg/L)	82	94	86	172	500	2000
Calcium(mg/L)	11.2	12.8	11.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.12	<0.02	0.1	0.3
Sulphate(mg/L)	16	17	16	33	200	400
Nitrate(mg/L)	3.54	3.99	3.54	4.87	45	100
Fluoride(mg/L)	0.09	0.09	0.09	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Kudopali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	3	2	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	3	5	5	1	10
pH	7.42	7.44	7.42	7.38	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	28	28	28	200	600
Total Hardness(mg/L)	52	52	48	52	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.36	0.3	1
Chloride(mg/L)	10	10	10	12	250	1000
Residual Free chlorine(mg/L)	0.12	0.11	0.13	0.13	0.2	—
Total Dissolve Solid(mg/L)	88	92	86	92	500	2000
Calcium(mg/L)	11.2	12.8	11.2	12.8	75	200
Copper(mg/L)	0.04	<0.03	<0.03	0.16	0.05	1.5
Manganese(mg/L)	0.06	<0.02	0.05	0.77	0.1	0.3
Sulphate(mg/L)	16	16	17	17	200	400
Nitrate(mg/L)	3.54	3.99	4.43	3.99	45	100
Fluoride(mg/L)	0.09	0.12	0.09	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.09	0.02	0.02	1.75	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	2	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	5	4	4	1	10
pH	8.29	8.26	8.23	8.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	48	52	56	200	600
Total Hardness(mg/L)	84	80	88	92	200	600
Iron(mg/L)	<0.06	0.06	0.06	0.06	0.3	1
Chloride(mg/L)	18	16	20	20	250	1000
Residual Free chlorine(mg/L)	0.12	0.11	0.12	0.12	0.2	—
Total Dissolve Solid(mg/L)	146	138	154	158	500	2000
Calcium(mg/L)	19.2	17.6	20.8	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	25	23	31	27	200	400
Nitrate(mg/L)	4.43	4.43	4.87	5.32	45	100
Fluoride(mg/L)	0.11	0.12	0.16	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	5	4	4	1	10
pH	8.11	8.08	8.05	7.41	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	56	56	24	200	600
Total Hardness(mg/L)	88	92	96	44	200	600
Iron(mg/L)	<0.06	0.17	<0.06	<0.06	0.3	1
Chloride(mg/L)	20	20	20	10	250	1000
Residual Free chlorine(mg/L)	0.11	0.13	0.11	0.11	0.2	—
Total Dissolve Solid(mg/L)	154	156	164	74	500	2000
Calcium(mg/L)	20.8	22.4	22.4	9.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	30	31	29	13	200	400
Nitrate(mg/L)	4.87	4.87	5.32	3.1	45	100
Fluoride(mg/L)	0.14	0.21	0.15	0.09	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0029	0.0029	0.0029	0.0029	0.003	No relaxation
Zinc(mg/L)	0.05	0.16	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Lajkura Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	4	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	4	4	1	10
pH	8.11	8.12	8.12	8.05	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	56	60	56	200	600
Total Hardness(mg/L)	88	92	96	88	200	600
Iron(mg/L)	<0.05	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	22	20	250	1000
Residual Free chlorine(mg/L)	0.11	0.1	0.12	0.14	0.2	—
Total Dissolve Solid(mg/L)	152	158	164	162	500	2000
Calcium(mg/L)	20.8	20.8	22.4	20.8	75	200
Copper(mg/L)	0.05	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	<0.02	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	29	29	29	28	200	400
Nitrate(mg/L)	4.87	5.32	4.43	5.32	45	100
Fluoride(mg/L)	0.12	0.15	0.1	0.14	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0029	BDL	0.0029	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.45	0.04	0.04	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	0.04	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	2	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	3	5	1	10
pH	7.43	7.46	7.45	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	20	24	24	24	200	600
Total Hardness(mg/L)	40	48	44	40	200	600
Iron(mg/L)	<0.06	0.07	0.06	0.06	0.3	1
Chloride(mg/L)	8	8	8	8	250	1000
Residual Free chlorine(mg/L)	0.16	0.13	0.1	0.14	0.2	—
Total Dissolve Solid(mg/L)	72	84	76	68	500	2000
Calcium(mg/L)	9.6	11.2	9.6	9.6	75	200
Copper(mg/L)	<0.03	<0.02	<0.02	<0.02	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	14	0.05	13	14	200	400
Nitrate(mg/L)	3.1	3.1	2.66	3.1	45	100
Fluoride(mg/L)	0.08	0.09	0.09	0.08	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	4	3	1	10
pH	7.52	7.48	7.43	8.32	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	24	24	72	200	600
Total Hardness(mg/L)	40	48	48	112	200	600
Iron(mg/L)	<0.06	0.25	<0.06	<0.06	0.3	1
Chloride(mg/L)	8	10	10	26	250	1000
Residual Free chlorine(mg/L)	0.1	0.11	0.14	nil	0.2	—
Total Dissolve Solid(mg/L)	74	84	86	194	500	2000
Calcium(mg/L)	9.6	11.2	11.2	25.6	75	200
Copper(mg/L)	<0.02	<0.02	<0.02	<0.02	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.29	<0.02	0.1	0.3
Sulphate(mg/L)	14	16	15	37	200	400
Nitrate(mg/L)	3.1	3.54	3.54	4.87	45	100
Fluoride(mg/L)	0.07	0.09	0.08	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	0.001	0.001	0.001	0.001	0.003	No relaxation
Zinc(mg/L)	<0.02	0.13	<0.02	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Anapali village well water	Anapali village well water	Anapali village well water	Anapali village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	3	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	4	5	1	10
pH	7.45	7.47	7.53	7.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	24	24	24	200	600
Total Hardness(mg/L)	44	44	44	44	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	8	10	8	8	250	1000
Residual Free chlorine(mg/L)	0.12	0.12	0.12	0.13	0.2	—
Total Dissolve Solid(mg/L)	76	78	76	76	500	2000
Calcium(mg/L)	9.6	9.6	9.6	9.6	75	200
Copper(mg/L)	0.05	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.06	<0.02	0.06	0.16	0.1	0.3
Sulphate(mg/L)	14	14	12	15	200	400
Nitrate(mg/L)	3.54	3.54	399	3.99	45	100
Fluoride(mg/L)	0.03	0.11	0.09	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.001	0.001	0.001	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.38	0.02	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	Samleswari colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	24.4.2014	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	2	3	1	10
pH	8.38	8.35	8.33	8.43	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	64	72	64	200	600
Total Hardness(mg/L)	112	108	116	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	24	22	26	22	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	194	186	204	188	500	2000
Calcium(mg/L)	27.2	25.6	27.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	39	36	38	34	200	400
Nitrate(mg/L)	5.32	5.53	5.76	5.32	45	100
Fluoride(mg/L)	0.17	0.18	0.18	0.19	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.03	<0.02	0.05	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Samleswari OCP	Samleswari OCP		
Monitoring Station	Samleshwari colony Tap water	Samleswari colony Tap water	Samleshwari colony Tap water	Samleshwari colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	5	1	10
pH	8.41	8.39	8.36	7.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	64	60	28	200	600
Total Hardness(mg/L)	104	104	104	52	200	600
Iron(mg/L)	<0.06	0.14	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	22	22	12	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	0.12	0.2	—
Total Dissolve Solid(mg/L)	182	174	182	92	500	2000
Calcium(mg/L)	24	25.6	24	12	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	33	37	35	18	200	400
Nitrate(mg/L)	5.76	5.32	5.32	3.64	45	100
Fluoride(mg/L)	1.06	0.24	0.26	0.09	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0017	0.0017	0.0017	0.0017	0.003	No relaxation
Zinc(mg/L)	0.1	0.15	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Samleswari OCP	Samleswari OCP	Sampleswari OCP	Samleswari OCP		
Monitoring Station	Samleshwari colony Tap water	Samleshwari colony Tap water	Samleshwari colony Tap water	Samleshwari colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	3	3	1	10
pH	8.34	8.34	8.47	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	55	68	60	64	200	600
Total Hardness(mg/L)	96	112	104	104	200	600
Iron(mg/L)	<0.03	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	20	24	24	24	250	1000
Residual Free chlorine(mg/L)	Nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	168	194	182	180	500	2000
Calcium(mg/L)	22.4	27.2	24	24	75	200
Copper(mg/L)	0.04	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	31	42	31	37	200	400
Nitrate(mg/L)	4.87	5.32	4.87	4.87	45	100
Fluoride(mg/L)	0.16	0.16	0.13	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0017	0.0017	0.0017	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.1	0.02	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 152

Project	Samleswari OCP	Samleswari OCP		
Monitoring Station	Water from intake (Raw water) at IWSS	Water from intake (Raw water) at IWSS	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	7.9.2015	07.03.16	Desirable	Permissible
Colour(Hazen)	8	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	17	2	1	10
pH	7.73	7.72	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	36	200	600
Total Hardness(mg/L)	52	64	200	600
Iron(mg/L)	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	14	250	1000
Residual Free chlorine(mg/L)	nil	0.16	0.2	—
Total Dissolve Solid(mg/L)	88	112	500	2000
Calcium(mg/L)	11.2	14.4	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.03	<0.02	0.1	0.3
Sulphate(mg/L)	16	19	200	400
Nitrate(mg/L)	3.54	4.43	45	100
Fluoride(mg/L)	0.09	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002

Table 153

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	21.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	3	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	4	4	1	10
pH	7.13	7.17	7.16	7.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	20	20	24	28	200	600
Total Hardness(mg/L)	44	40	48	52	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	8	10	12	250	1000
Residual Free chlorine(mg/L)	0.12	0.12	0.1	0.11	0.2	—
Total Dissolve Solid(mg/L)	80	74	86	94	500	2000
Calcium(mg/L)	9.6	8	11.2	11.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	15	13	16	15	200	400
Nitrate(mg/L)	2.66	2.66	3.1	3.99	45	100
Fluoride(mg/L)	0.09	0.08	0.1	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	4	4	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	4	1	10
pH	7.13	7.11	7.13	8.09	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	28	24	36	200	600
Total Hardness(mg/L)	60	56	52	80	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	12	10	14	250	1000
Residual Free chlorine(mg/L)	0.1	0.12	0.15	0.14	0.2	—
Total Dissolve Solid(mg/L)	106	98	96	108	500	2000
Calcium(mg/L)	14.4	12.8	11.2	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.11	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	19	17	15	19	200	400
Nitrate(mg/L)	3.99	4.43	3.99	4.43	45	100
Fluoride(mg/L)	0.11	0.11	0.1	0.09	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0018	0.0018	0.0018	0.0018	0.003	No relaxation
Zinc(mg/L)	0.1	0.07	0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Madhuban Nagar well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	4	1	10
pH	7.13	7.16	7.12	7.12	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	28	32	24	200	600
Total Hardness(mg/L)	60	60	60	52	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	12	12	12	250	1000
Residual Free chlorine(mg/L)	0.1	0.11	0.11	0.1	0.2	—
Total Dissolve Solid(mg/L)	104	104	102	94	500	2000
Calcium(mg/L)	14.4	14.4	12.8	11.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.11	BDL	<0.02	0.09	0.1	0.3
Sulphate(mg/L)	21	20	17	17	200	400
Nitrate(mg/L)	4.43	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.11	0.12	0.09	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0018	0.0018	0.0018	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.16	0.02	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 154

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	21.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	2	3	1	10
pH	8.22	8.24	8.24	8.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	40	40	36	200	600
Total Hardness(mg/L)	72	68	64	60	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	16	14	12	14	250	1000
Residual Free chlorine(mg/L)	0.15	0.19	0.1	0.16	0.2	—
Total Dissolve Solid(mg/L)	122	114	114	110	500	2000
Calcium(mg/L)	16	14.4	14.4	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	23	20	22	18	200	400
Nitrate(mg/L)	4.43	4.43	4.43	3.54	45	100
Fluoride(mg/L)	0.1	0.11	0.11	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.09	0.06	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.2015	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	12	1	10
pH	8.17	8.14	8.12	7.54	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	40	36	48	200	600
Total Hardness(mg/L)	64	64	56	84	200	600
Iron(mg/L)	<0.06	0.24	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	14	12	18	250	1000
Residual Free chlorine(mg/L)	0.1	0.14	0.12	nil	0.2	—
Total Dissolve Solid(mg/L)	116	112	102	146	500	2000
Calcium(mg/L)	16	16	12.8	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	27	23	17	28	200	400
Nitrate(mg/L)	4.43	4.43	4.43	4.87	45	100
Fluoride(mg/L)	0.11	0.1	0.12	0.21	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0035	0.0035	0.0035	0.0035	0.003	No relaxation
Zinc(mg/L)	0.33	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Adarshnagar colony treated water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	3	1	10
pH	8.15	8.13	8.17	8.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	40	44	14	200	600
Total Hardness(mg/L)	68	64	68	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	14	14	14	250	1000
Residual Free chlorine(mg/L)	0.11	0.11	0.13	0.11	0.2	—
Total Dissolve Solid(mg/L)	118	110	116	118	500	2000
Calcium(mg/L)	16	16	16	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	BDL	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	23	22	23	23	200	400
Nitrate(mg/L)	4.43	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.13	0.12	0.1	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0035	0.0035	0.0035	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.51	0.02	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

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Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	21.4.2015	09.05.15	6.6.2015	9.7.2015	Desirable	Permissible
Colour(Hazen)	3	2	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	7.37	7.38	7.32	7.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	20	20	16	24	200	600
Total Hardness(mg/L)	36	40	32	44	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	8	8	6	10	250	1000
Residual Free chlorine(mg/L)	0.14	0.13	0.1	0.13	0.2	—
Total Dissolve Solid(mg/L)	64	72	58	82	500	2000
Calcium(mg/L)	8	9.6	8	9.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	13	14	11	14	200	400
Nitrate(mg/L)	2.66	2.66	2.66	3.54	45	100
Fluoride(mg/L)	0.08	0.08	0.08	0.08	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	9.9.15	7.10.2015	09.11.2015	Desirable	Permissible
Colour(Hazen)	3	3	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	5	5	1	10
pH	7.38	7.36	7.38	8.12	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	24	24	52	200	600
Total Hardness(mg/L)	44	48	52	84	200	600
Iron(mg/L)	<0.06	0.46	<0.06	<0.06	0.3	1
Chloride(mg/L)	8	10	10	18	250	1000
Residual Free chlorine(mg/L)	0.11	0.11	0.13	0.12	0.2	—
Total Dissolve Solid(mg/L)	76	84	94	144	500	2000
Calcium(mg/L)	9.6	11.2	11.2	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.14	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	14	16	16	27	200	400
Nitrate(mg/L)	3.1	3.99	4.43	4.43	45	100
Fluoride(mg/L)	0.07	0.09	0.1	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	1.44	<0.02	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Chhualiberna village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	8.1.2016	5.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	6	4	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	4	5	1	10
pH	7.32	7.34	7.37	7.38	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	24	24	24	28	200	600
Total Hardness(mg/L)	48	44	48	56	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	10	10	10	12	250	1000
Residual Free chlorine(mg/L)	0.12	0.13	0.1	0.1	0.2	—
Total Dissolve Solid(mg/L)	86	78	84	96	500	2000
Calcium(mg/L)	11.2	11.2	11.2	12.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	16	16	15	18	200	400
Nitrate(mg/L)	3.99	3.54	3.99	4.43	45	100
Fluoride(mg/L)	0.09	0.1	0.1	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	BDL	0.02	0.04	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 156

Project	Lajkura OCP	Lajkura OCP	Lajkura OCP	Lajkura OCP		
Monitoring Station	Raw water at mine no. 2	Raw water at mine no. 2	Raw water at mine no. 2	Raw water at mine no. 2	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.05.15	8.8.2015	09.11.2015	5.2.2016	Desirable	Permissible
Colour(Hazen)	9	8	5	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	13	14	8	13	1	10
pH	7.55	7.56	7.89	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	44	40	40	200	600
Total Hardness(mg/L)	76	80	82	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	16	16	15	18	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	132	138	130	132	500	2000
Calcium(mg/L)	17.6	17.6	14.2	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	25	25	20	26	200	400
Nitrate(mg/L)	4.43	4.87	4.2	4.43	45	100
Fluoride(mg/L)	0.18	0.16	0.08	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.0018	0.0018	0.0018	0.003	No relaxation
Zinc(mg/L)	0.05	0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 157

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP		
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	11.6.2015	11.7.2015	Desirable	Permissible
Colour(Hazen)	2	3	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	5	1	10
pH	6.92	6.9	6.93	8.22	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	64	60	48	200	600
Total Hardness(mg/L)	140	136	136	80	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	30	30	18	250	1000
Residual Free chlorine(mg/L)	0.11	0.11	0.11	0.16	0.2	—
Total Dissolve Solid(mg/L)	242	234	234	144	500	2000
Calcium(mg/L)	35.2	33.6	32	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	52	47	51	28	200	400
Nitrate(mg/L)	6.2	5.76	6.65	4.87	45	100
Fluoride(mg/L)	0.22	0.24	0.25	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.08	0.05	0.05	0.05	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP		
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.8.2015	9.9.2015	8.10.2015	13.11.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	2	3	1	10
pH	8.18	8.15	8.16	6.27	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	52	52	56	200	600
Total Hardness(mg/L)	76	84	88	132	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	18	18	30	250	1000
Residual Free chlorine(mg/L)	0.12	0.14	0.11	NIL	0.2	—
Total Dissolve Solid(mg/L)	136	144	152	232	500	2000
Calcium(mg/L)	17.6	19.2	20.8	32	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	26	28	27	51	200	400
Nitrate(mg/L)	4.43	4.43	5.32	5.32	45	100
Fluoride(mg/L)	0.15	0.13	0.16	0.22	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	0.0047	0.0047	0.0047	0.0047	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	<0.02	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lilari OCP	Lilari OCP	Lilari OCP	Lilari OCP		
Monitoring Station	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Jurabaga village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	09.12.2015	13.1.2016	9.2.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	3	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	4	3	4	1	10
pH	8.17	8.18	8.25	8.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	52	52	48	200	600
Total Hardness(mg/L)	80	88	88	80	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	16	18	20	18	250	1000
Residual Free chlorine(mg/L)	0.11	0.11	0.11	0.15	0.2	—
Total Dissolve Solid(mg/L)	138	156	152	138	500	2000
Calcium(mg/L)	19.2	20.8	20.8	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	28	29	28	200	400
Nitrate(mg/L)	4.43	4.87	5.37	4.87	45	100
Fluoride(mg/L)	0.12	0.16	0.14	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0047	0.0047	0.0047	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.03	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 158

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	11.6.2015	11.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	3	1	10
pH	6.26	6.28	6.27	6.29	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	56	56	60	200	600
Total Hardness(mg/L)	136	140	140	140	200	600
Iron(mg/L)	<0.06	0.06	0.07		0.3	1
Chloride(mg/L)	30	32	32	32	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	236	244	244	252	500	2000
Calcium(mg/L)	32	33.6	33.6	33.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	53	55	61	47	200	400
Nitrate(mg/L)	6.2	6.65	6.65	6.2	45	100
Fluoride(mg/L)	0.27	0.29	0.26	0.28	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.8.2015	9.9.15	8.10.2015	13.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	4	3	1	10
pH	6.28	6.29	6.28	6.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	56	60	68	200	600
Total Hardness(mg/L)	140	136	140	152	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	30	32	30	34	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	244	232	240	262	500	2000
Calcium(mg/L)	32	32	32	35.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	45	43	43	53	200	400
Nitrate(mg/L)	6.32	6.2	6.65	5.32	45	100
Fluoride(mg/L)	0.26	0.25	0.34	0.25	1	1.5
Selenium(mg/L)	<0.002	<0.002	bdl	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.0047	0.003	No relaxation
Zinc(mg/L)	0.04	<0.02	0.03	0.06	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Ubuda village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.12.2015	13.1.2016	10.2.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	3	1	10
pH	6.28	6.31	6.28	6.28	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	60	56	200	600
Total Hardness(mg/L)	132	136	144	132	200	600
Iron(mg/L)	<0.06	<0.06		<0.06	0.3	1
Chloride(mg/L)	26	30	32	28	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	228	238	246	226	500	2000
Calcium(mg/L)	30.4	32	33.6	30.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	48	47	47	46	200	400
Nitrate(mg/L)	5.78	5.32	5.76	6.2	45	100
Fluoride(mg/L)	0.27	0.28	0.32	0.27	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0047	0.0047	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.27	0.06	0.06	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 159

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	11.6.2015	11.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	2	2	1	10
pH	6.94	6.96	6.96	6.95	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	68	64	72	200	600
Total Hardness(mg/L)	144	148	148	148	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	34	32	34	250	1000
Residual Free chlorine(mg/L)	0.13	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	248	256	260	264	500	2000
Calcium(mg/L)	33.6	36.8	35.2	35.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	56	59	61	52	200	400
Nitrate(mg/L)	6.65	7.09	6.65	7.09	45	100
Fluoride(mg/L)	0.28	0.31	0.26	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.8.2015	9.9.15	8.10.2015	13.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	2	4	1	10
pH	6.93	6.92	7.93	7.76	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	68	68	44	200	600
Total Hardness(mg/L)	144	144	148	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	34	32	18	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	256	248	254	134	500	2000
Calcium(mg/L)	33.6	35.2	35.2	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	<0.02	<0.02	0.05	0.1	0.3
Sulphate(mg/L)	45	51	46	24	200	400
Nitrate(mg/L)	7.53	6.2	6.65	4.43	45	100
Fluoride(mg/L)	0.32	0.29	0.36	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Khairkuni village tube well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.12.2015	13.1.2016	10.2.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	2	1	10
pH	6.9	6.91	6.96	6.94	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	68	76	76	68	200	600
Total Hardness(mg/L)	144	148	156	144	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	30	0.4	34	32	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	252	254	268	252	500	2000
Calcium(mg/L)	33.6	35.2	36.8	33.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.05	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	52	51	55	47	200	400
Nitrate(mg/L)	8.2	5.32	5.76	6.2	45	100
Fluoride(mg/L)	0.31	0.28	0.27	0.25	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.0047	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	0.05	0.07	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 160

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Bandhbahal tap water	Bandhbahal tap water	Bandhbahal tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	11.6.2015	11.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	3	1	10
pH	7.87	7.84	7.86	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	36	40	200	600
Total Hardness(mg/L)	64	64	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	14	14	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	104	112	118	500	2000
Calcium(mg/L)	14.4	14.4	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	22	23	25	200	400
Nitrate(mg/L)	4.43	3.99	4.43	45	100
Fluoride(mg/L)	0.11	0.12	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	Bandhbahal tap water	Bandhbahal tap water	Bandhbahal tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.8.2015	8.10.2015	9.12.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	10
pH	7.84	7.84	7.85	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	40	40	200	600
Total Hardness(mg/L)	64	72	72	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	16	14	250	1000
Residual Free chlorine(mg/L)	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	112	128	126	500	2000
Calcium(mg/L)	14.4	16	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.06	0.1	0.3
Sulphate(mg/L)	19	23	24	200	400
Nitrate(mg/L)	4.43	4.87	4.43	45	100
Fluoride(mg/L)	0.11	0.13	0.14	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 161

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	13.05.15	11.7.2015	9.9.15	13.11.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	4	1	10
pH	7.76	7.74	7.72	7.58	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	44	44	36	200	600
Total Hardness(mg/L)	68	76	84	68	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	16	16	18	14	250	1000
Residual Free chlorine(mg/L)	nil	nil	NIL	nil	0.2	—
Total Dissolve Solid(mg/L)	126	134	142	118	500	2000
Calcium(mg/L)	16	17.6	19.2	16	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	25	26	27	23	200	400
Nitrate(mg/L)	4.87	4.87	5.32	4.43	45	100
Fluoride(mg/L)	0.13	0.12	0.25	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP		
Monitoring Station	LKP canteen tap water	LKP canteen tap water	LKP canteen tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	13.1.2016	10.2.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	3	1	10
pH	7.74	7.85	7.75	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	52	40	44	200	600
Total Hardness(mg/L)	84	72	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	16	16	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	146	124	136	500	2000
Calcium(mg/L)	19.2	16	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	29	28	200	400
Nitrate(mg/L)	4.87	4.43	4.43	45	100
Fluoride(mg/L)	0.17	0.12	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.05	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 162

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Belpahar Colony Tap water	Belpahar Colony Tap water	Belpahar Colony Tap water	Belpahar Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	11.7.2015	8.10.2015	13.1.2016	Desirable	Permissible
Colour(Hazen)	2	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	4	4	1	10
pH	7.57	7.49	7.45	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	36	32	32	200	600
Total Hardness(mg/L)	60	64	60	64	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	14	12	14	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	104	112	102	110	500	2000
Calcium(mg/L)	12.8	14.4	12.8	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	18	19	17	18	200	400
Nitrate(mg/L)	3.99	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.09	0.11	0.11	0.11	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	0.0006	0.0006	0.003	No relaxation
Zinc(mg/L)	0.08	<0.02	0.06	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 163

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	13.05.15	11.6.2015	11.7.2015	Desirable	Permissible
Colour(Hazen)	3	3	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	6	5	4	1	10
pH	8.37	8.34	8.35	8.37	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	76	80	76	80	200	600
Total Hardness(mg/L)	132	136	128	136	200	600
Iron(mg/L)	<0.06	0.09	0.09	0.09	0.3	1
Chloride(mg/L)	30	32	28	30	250	1000
Residual Free chlorine(mg/L)	0.14	0.11	0.11	0.14	0.2	—
Total Dissolve Solid(mg/L)	228	236	218	242	500	2000
Calcium(mg/L)	30.4	32	30.4	32	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	53	56	49	49	200	400
Nitrate(mg/L)	6.2	7.09	5.76	6.65	45	100
Fluoride(mg/L)	0.25	0.27	0.24	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.07	0.07	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	12.8.2015	9.9.15	8.10.2015	13.11.2015	Desirable	Permissible
Colour(Hazen)	2	4	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	5	4	1	10
pH	8.36	8.34	8.37	7.53	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	88	84	92	56	200	600
Total Hardness(mg/L)	140	144	148	100	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	34	32	22	250	1000
Residual Free chlorine(mg/L)	0.12	0.1	0.12	nil	0.2	—
Total Dissolve Solid(mg/L)	246	246	254	174	500	2000
Calcium(mg/L)	33.6	33.6	35.2	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	44	43	45	34	200	400
Nitrate(mg/L)	7.09	6.2	6.65	4.87	45	100
Fluoride(mg/L)	0.25	0.35	0.38	0.18	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	0.05	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Darlipali Village well water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.12.2015	13.1.2016	10.2.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	3	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	4	5	1	10
pH	8.36	8.37	8.38	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	84	80	52	200	600
Total Hardness(mg/L)	140	140	136	84	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	28	32	30	28	250	1000
Residual Free chlorine(mg/L)	0.12	0.12	0.12	0.14	0.2	—
Total Dissolve Solid(mg/L)	244	242	236	242	500	2000
Calcium(mg/L)	33.6	33.6	32	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	52	52	46	27	200	400
Nitrate(mg/L)	5.76	5.76	5.32	6.65	45	100
Fluoride(mg/L)	0.23	0.28	0.24	0.22	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.01	0.07	0.05	0.04	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 164

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	11.6.2015	12.8.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	1	10
pH	7.41	7.43	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	52	56	200	600
Total Hardness(mg/L)	108	104	108	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	24	22	24	250	1000
Residual Free chlorine(mg/L)	0.15	0.12	0.1	0.2	—
Total Dissolve Solid(mg/L)	188	176	188	500	2000
Calcium(mg/L)	25.6	24	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	41	35	36	200	400
Nitrate(mg/L)	5.76	5.32	5.76	45	100
Fluoride(mg/L)	0.23	0.21	0.24	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.07	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Belpahar Integrated township mausi maa mandir outlet	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.10.2015	9.12.2015	10.2.2016	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	3	1	10
pH	7.38	7.32	7.44	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	52	200	600
Total Hardness(mg/L)	112	108	100	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	24	22	22	250	1000
Residual Free chlorine(mg/L)	0.15	0.1	0.1	0.2	—
Total Dissolve Solid(mg/L)	196	184	172	500	2000
Calcium(mg/L)	25.6	25.8	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	36	37	31	200	400
Nitrate(mg/L)	6.2	4.87	4.87	45	100
Fluoride(mg/L)	0.31	0.18	0.21	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	0.05	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 165

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Excavation W/S tap water	Excavation W/S tap water	Excavation workshop Tap water	Excavation Workshop tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	13.05.15	12.8.2015	13.11.2015	10.2.2016	Desirable	Permissible
Colour(Hazen)	2	3	2	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	5	5	5	1	10
pH	7.52	7.54	8.34	7.51	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	40	84	40	200	600
Total Hardness(mg/L)	64	72	144	76	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	14	16	32	18	250	1000
Residual Free chlorine(mg/L)	nil	NIL	0.11	nil	0.2	—
Total Dissolve Solid(mg/L)	118	126	248	134	500	2000
Calcium(mg/L)	14.4	16	33.6	17.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	19	24	45	29	200	400
Nitrate(mg/L)	4.43	4.87	5.32	4.43	45	100
Fluoride(mg/L)	0.12	0.11	0.23	0.12	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.0006	0.0006	<0.005	0.003	No relaxation
Zinc(mg/L)	0.07	<0.02	0.05	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 166

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	CHP tap water	CHP tap water	CHP Tap water	CHP tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	11.6.2015	9.9.15	9.12.2015	08.03.16	Desirable	Permissible
Colour(Hazen)	2	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	4	1	10
pH	7.52	7.95	7.97	7.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	40	40	36	200	600
Total Hardness(mg/L)	60	68	58	64	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	12	14	12	14	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	108	114	118	108	500	2000
Calcium(mg/L)	12.8	16	14.4	14.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	18	23	19	19	200	400
Nitrate(mg/L)	3.99	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.1	0.15	0.11	0.1	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	0.0006	0.0006	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.01	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.01	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 167

Project	Belpahar OCP	Belpahar OCP		
Monitoring Station	Intake water of IWSS	Intake water of IWSS	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	9.9.15	08.03.16	Desirable	Permissible
Colour(Hazen)	9	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	16	13	1	10
pH	7.57	7.54	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	76	72	200	600
Total Hardness(mg/L)	148	140	200	600
Iron(mg/L)	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	30	250	1000
Residual Free chlorine(mg/L)	NIL	nil	0.2	—
Total Dissolve Solid(mg/L)	254	246	500	2000
Calcium(mg/L)	35.2	33.6	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	46	51	200	400
Nitrate(mg/L)	6.2	6.65	45	100
Fluoride(mg/L)	0.34	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	0.0006	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002

Table 168

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Belpahar Integrated Township Inderadhanus Club outlet	Belpahar Integrated Township Inderadhanus Club outlet	Belpahar Integrated Township Inderadhanus Club outlet	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	13.05.15	11.7.2015	9.9.15	Desirable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	1	10
pH	7.65	7.62	7.57	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	52	200	600
Total Hardness(mg/L)	100	100	104	200	600
Iron(mg/L)	<0.06	<0.06	0.4	0.3	1
Chloride(mg/L)	24	24	24	250	1000
Residual Free chlorine(mg/L)	0.11	0.15	0.13	0.2	—
Total Dissolve Solid(mg/L)	182	178	182	500	2000
Calcium(mg/L)	25.6	24	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	34	35	33	200	400
Nitrate(mg/L)	5.32	5.76	4.87	45	100
Fluoride(mg/L)	0.18	0.16	0.26	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.0005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Project	Belpahar OCP	Belpahar OCP	Belpahar OCP		
Monitoring Station	Belpahar Integrated township indradhanush club outlet	Belpahar Integrated township-Indradhanush club outlet	Belpahar Integrated township InderDhanus Club outlet	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	3.11.2015	14.1.2016	08.03.16	Desirable	Permissible
Colour(Hazen)	4	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	3	3	1	10
pH	8.83	7.53	7.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	160	56	56	200	600
Total Hardness(mg/L)	272	104	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	62	22	22	250	1000
Residual Free chlorine(mg/L)	0.12	0.11	0.12	0.2	—
Total Dissolve Solid(mg/L)	472	176	174	500	2000
Calcium(mg/L)	65.6	24	240	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	84	33	35	200	400
Nitrate(mg/L)	7.97	4.87	5.32	45	100
Fluoride(mg/L)	0.46	0.21	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.005	0.005	0.005	0.01	No relaxation
Lead(mg/L)	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.06	0.03	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002

Table 169

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia	Well at Tumulia	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	15.4.2015	05.05.15	3.6.2015	4.7.2015	Desirable	Permissible
Colour(Hazen)	3	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	4	4	1	10
pH	7.91	7.93	7.96	7.88	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	164	156	172	164	200	600
Total Hardness(mg/L)	304	296	300	288	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	68	64	66	64	250	1000
Residual Free chlorine(mg/L)	0.16	0.12	0.11	0.12	0.2	—
Total Dissolve Solid(mg/L)	524	508	516	514	500	2000
Calcium(mg/L)	72	68.8	73.6	70.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	106	102	96	96	200	400
Nitrate(mg/L)	11.08	10.63	10.63	10.19	45	100
Fluoride(mg/L)	0.46	0.43	0.45	0.52	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.06	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia	Well at Tumulia	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	4.9.15	6.10.2015	3.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	4	7.38	1	10
pH	7.85	7.83	7.79	8.4	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	160	148	196	160	200	600
Total Hardness(mg/L)	288	284	280	142	200	600
Iron(mg/L)	<0.06	0.27	<0.06	<0.06	0.3	1
Chloride(mg/L)	68	66	62	36	250	1000
Residual Free chlorine(mg/L)	0.14	0.11	0.13	0.15	0.2	—
Total Dissolve Solid(mg/L)	506	492	484	274	500	2000
Calcium(mg/L)	68.8	68.8	68.8	38.4	75	200
Copper(mg/L)	<0.03	<0.03	bdl	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	84	82	82	55	200	400
Nitrate(mg/L)	10.63	12.85	13.29	5.76	45	100
Fluoride(mg/L)	0.48	0.58	0.59	0.24	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	0.06	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Well at Tumulia	Well at Tumulia	Well at Tumulia	Well at Tumulia	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	3.12.2015	4.1.2016	2.2.2016	03.03.16	Desirable	Permissible
Colour(Hazen)	4	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	5	4	5	1	10
pH	7.76	7.85	7.85	7.78	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	156	152	160	156	200	600
Total Hardness(mg/L)	276	280	304	280	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	58	64	68	62	250	1000
Residual Free chlorine(mg/L)	0.11	0.1	0.11	0.1	0.2	—
Total Dissolve Solid(mg/L)	478	484	522	486	500	2000
Calcium(mg/L)	65.8	67.2	72	67.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	0.06	0.1	0.3
Sulphate(mg/L)	84	84	102	88	200	400
Nitrate(mg/L)	8.86	8.86	9.75	10.19	45	100
Fluoride(mg/L)	0.42	0.52	0.67	0.38	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.01	0.08	0.08	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 170

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Filter Plant	Filter Plant	Filter Plant	Filter Plant	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	18.4.2015	05.05.15	3.6.2015	4.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	2	2	1	10
pH	7.46	7.48	7.41	7.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	80	84	76	200	600
Total Hardness(mg/L)	156	152	160	148	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	82	34	32	250	1000
Residual Free chlorine(mg/L)	0.16	0.16	0.13	0.15	0.2	—
Total Dissolve Solid(mg/L)	270	262	282	268	500	2000
Calcium(mg/L)	36.8	85.2	38.4	35.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	59	56	64	53	200	400
Nitrate(mg/L)	5.76	5.76	6.2	6.65	45	100
Fluoride(mg/L)	0.24	0.22	0.26	0.27	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.04	0.04	0.04	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Filter Plant	Filter Plant	Filter Plant	Filter Plant	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	4.9.15	6.10.2015	3.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	2	1	10
pH	7.44	7.47	7.43	8.22	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	80	76	88	200	600
Total Hardness(mg/L)	148	156	152	144	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	36	34	32	250	1000
Residual Free chlorine(mg/L)	0.12	0.14	0.12	Nil	0.2	—
Total Dissolve Solid(mg/L)	262	268	262	248	500	2000
Calcium(mg/L)	35.2	36.8	36.8	33.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	53	53	47	48	200	400
Nitrate(mg/L)	6.2	0.09	6.65	5.32	45	100
Fluoride(mg/L)	0.23	0.36	0.36	0.23	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.04	0.13	0.04	0.06	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Kulda OCP	Kulda OCP	Kulda OCP	Kulda OCP		
Monitoring Station	Filter Plant	Filter Plant	Filter Plant	Filter Plant	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	3.12.2015	4.1.2016	2.2.2016	03.03.16	Desirable	Permissible
Colour(Hazen)	2	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	4	4	1	10
pH	7.41	7.48	7.43	7.42	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	80	76	76	200	600
Total Hardness(mg/L)	152	152	148	148	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	32	34	32	250	1000
Residual Free chlorine(mg/L)	0.11	0.12	0.12	0.13	0.2	—
Total Dissolve Solid(mg/L)	268	262	254	256	500	2000
Calcium(mg/L)	36.8	35.2	35.2	35.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	57	53	54	59	200	400
Nitrate(mg/L)	5.76	5.32	5.32	7.09	45	100
Fluoride(mg/L)	0.25	0.27	0.35	0.31	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.01	0.02	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 171

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP		
Monitoring Station	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	18.4.2015	05.05.15	3.6.2015	4.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	3	3	1	10
pH	8.22	8.25	8.24	8.23	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	84	88	80	200	600
Total Hardness(mg/L)	140	144	144	136	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	34	34	30	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	244	252	252	244	500	2000
Calcium(mg/L)	33.6	35.2	33.6	32	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	54	57	49	48	200	400
Nitrate(mg/L)	6.65	7.09	7.09	7.53	45	100
Fluoride(mg/L)	0.25	0.28	0.24	0.29	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.03	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP		
Monitoring Station	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	5.8.2015	4.9.15	6.10.2015	03.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	4	4	1	10
pH	8.26	8.22	8.25	8.44	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	84	84	92	200	600
Total Hardness(mg/L)	144	140	136	160	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	32	30	35	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	252	244	236	278	500	2000
Calcium(mg/L)	33.6	33.6	32	38.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	46	47	44	54	200	400
Nitrate(mg/L)	6.2	6.2	6.65	5.76	45	100
Fluoride(mg/L)	0.27	0.32	0.27	0.23	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0016	0.0016	0.0016	0.0016	0.003	No relaxation
Zinc(mg/L)	0.03	0.09	0.05	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.05	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Basundhara OCP	Basundhara OCP	Basundhara OCP	Basundhara OCP		
Monitoring Station	Basundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Bashundhara Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	03.12.2015	5.1.2016	2.2.2016	02.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	3	1	10
pH	8.27	8.16	8.25	8.24	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	92	80	84	200	600
Total Hardness(mg/L)	140	148	136	140	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	28	32	30	30	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	242	252	236	240	500	2000
Calcium(mg/L)	33.6	33.6	32	32	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	52	49	45	49	200	400
Nitrate(mg/L)	4.87	4.87	4.87	6.2	45	100
Fluoride(mg/L)	0.28	0.28	0.29	0.19	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0018	0.0016	0.0016	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.06	0.04	0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 172

Project	Basundhara OCP	Basundhara OCP		
Monitoring Station	Water of Intake well at Basundhara nala	Water of Intake well at Basundhara nala	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	4.9.15	02.03.16	Desirable	Permissible
Colour(Hazen)	7	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	15	7	1	10
pH	7.96	7.97	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	200	600
Total Hardness(mg/L)	100	96	200	600
Iron(mg/L)	0.06	<0.06	0.3	1
Chloride(mg/L)	22	22	250	1000
Residual Free chlorine(mg/L)	NIL	nil	0.2	—
Total Dissolve Solid(mg/L)	174	168	500	2000
Calcium(mg/L)	24	22.4	75	200
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	34	29	200	400
Nitrate(mg/L)	4.87	5.32	45	100
Fluoride(mg/L)	0.22	0.14	1	1.5
Selenium(mg/L)	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	0.005	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0016	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.12	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002

Table 173

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	22.4.2015	09.05.15	6.6.2015	7.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	3	1	10
pH	8.45	8.47	8.47	8.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84	88	92	84	200	600
Total Hardness(mg/L)	148	152	152	144	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	34	36	34	32	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	258	266	264	262	500	2000
Calcium(mg/L)	35.2	36.8	36.8	33.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	57	61	57	47	200	400
Nitrate(mg/L)	7.09	7.09	7.09	6.65	45	100
Fluoride(mg/L)	0.27	0.31	0.26	0.34	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	0.02	0.02	0.02	0.02	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.15	8.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	2	3	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	5	4	1	10
pH	8.43	8.45	8.47	8.11	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	92	104	60	200	600
Total Hardness(mg/L)	156	164	168	108	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	36	38	36	24	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	274	280	288	186	500	2000
Calcium(mg/L)	36.8	38.4	40	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	51	49	55	36	200	400
Nitrate(mg/L)	7.09	7.09	6.65	4.87	45	100
Fluoride(mg/L)	0.35	0.29	0.31	0.21	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.06	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	0.02	0.02	0.02	0.02	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Budhijam Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	11.1.2016	3.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	4	3	1	10
pH	8.43	8.43	8.47	8.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	92	88	96	200	600
Total Hardness(mg/L)	164	164	148	164	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	32	36	34	36	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	276	286	256	286	500	2000
Calcium(mg/L)	38.4	40	33.6	38.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	59	58	53	68	200	400
Nitrate(mg/L)	6.78	4.87	5.76	6.2	45	100
Fluoride(mg/L)	0.31	0.32	0.34	0.28	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.09	0.05	0.06	0.03	5	15
Hexavalent Chromium(mg/L)	0.02	0.02	0.02	0.02	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	<0.001	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001		0.001	0.002

Table 174

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	22.4.2015	09.05.15	6.6.2015	7.7.2015	Desirable	Permissible
Colour(Hazen)	3	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	2	3	1	10
pH	8.13	8.16	8.15	8.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	64	68	60	200	600
Total Hardness(mg/L)	100	104	104	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	24	24	22	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	174	182	182	188	500	2000
Calcium(mg/L)	24	25.6	24	24	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	41	43	33	35	200	400
Nitrate(mg/L)	4.87	5.32	4.43	4.87	45	100
Fluoride(mg/L)	0.21	0.23	0.23	0.22	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	8.8.2015	7.9.15	8.10.2015	9.11.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	13	1	10
pH	8.12	8.14	8.16	7.47	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	64	64	44	200	600
Total Hardness(mg/L)	104	104	104	80	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	24	24	22	18	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	186	176	180	142	500	2000
Calcium(mg/L)	25.6	24	24	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	34	33	33	28	200	400
Nitrate(mg/L)	5.32	4.87	5.76	4.87	45	100
Fluoride(mg/L)	0.23	0.25	0.22	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.14	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	Orient Area	Orient Area	Orient Area	Orient Area		
Monitoring Station	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Rampur Colony Tap water	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	07.12.2015	11.1.2016	3.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	2	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	4	3	3	1	10
pH	8.14	8.17	8.15	8.11	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	80	60	64	60	200	600
Total Hardness(mg/L)	104	100	104	100	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	22	22	22	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	184	172	182	172	500	2000
Calcium(mg/L)	25.8	24	24	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	36	33	34	29	200	400
Nitrate(mg/L)	4.87	4.87	4.87	4.87	45	100
Fluoride(mg/L)	0.23	0.21	0.26	0.16	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.09	0.04	0.04	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 175

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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)	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	11.05.15	2.6.2015	1.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	4	1	10
pH	8.18	8.15	8.14	8.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	60	64	60	200	600
Total Hardness(mg/L)	96	100	100	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	24	22	22	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	168	176	176	182	500	2000
Calcium(mg/L)	22.4	24	22.4	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	33	35	33	36	200	400
Nitrate(mg/L)	4.87	5.32	4.87	4.87	45	100
Fluoride(mg/L)	0.18	0.16	0.16	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.05	0.05	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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)	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	1.8.2015	5.9.15	3.10.2015	07.11.2015	Desirable	Permissible
Colour(Hazen)	3	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	4	1	10
pH	8.73	8.11	7.89	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	64	68	56	200	600
Total Hardness(mg/L)	104	108	112	92	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	24	24	20	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	176	184	192	156	500	2000
Calcium(mg/L)	24	25.6	25.6	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	33	35	36	25	200	400
Nitrate(mg/L)	5.32	5.32	6.2	4.87	45	100
Fluoride(mg/L)	0.13	0.29	0.23	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 176

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	05.12.2015	9.1.2016	6.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	3	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	4	1	10
pH	8.35	8.34	8.12	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	56	56	200	600
Total Hardness(mg/L)	92	96	96	96	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	24	20	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	158	164	174	164	500	2000
Calcium(mg/L)	20.8	22.4	22.4	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	31	31	28	200	400
Nitrate(mg/L)	4.87	4.87	5.32	5.32	45	100
Fluoride(mg/L)	0.16	0.19	0.18	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0016	0.0016	0.0016	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.01	0.03	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 177

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	Inlet water treatment plant anand Vihar	Inlet water treatment plant Anand Vihar	Inlet to Water treatment plant Anand Vihar	Inlet to Water treatment plant Anand Vihar	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	11.05.15	1.8.2015	07.11.2015	6.2.2016	Desirable	Permissible
Colour(Hazen)	7	8	2	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	12	13	4	12	1	10
pH	7.51	7.53	7.59	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	48	40	44	200	600
Total Hardness(mg/L)	88	88	72	84	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	16	18	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	148	154	124	142	500	2000
Calcium(mg/L)	20.8	20.8	16	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.94	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	27	29	23	28	200	400
Nitrate(mg/L)	3.54	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.16	0.13	0.14	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.05	0.02	0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

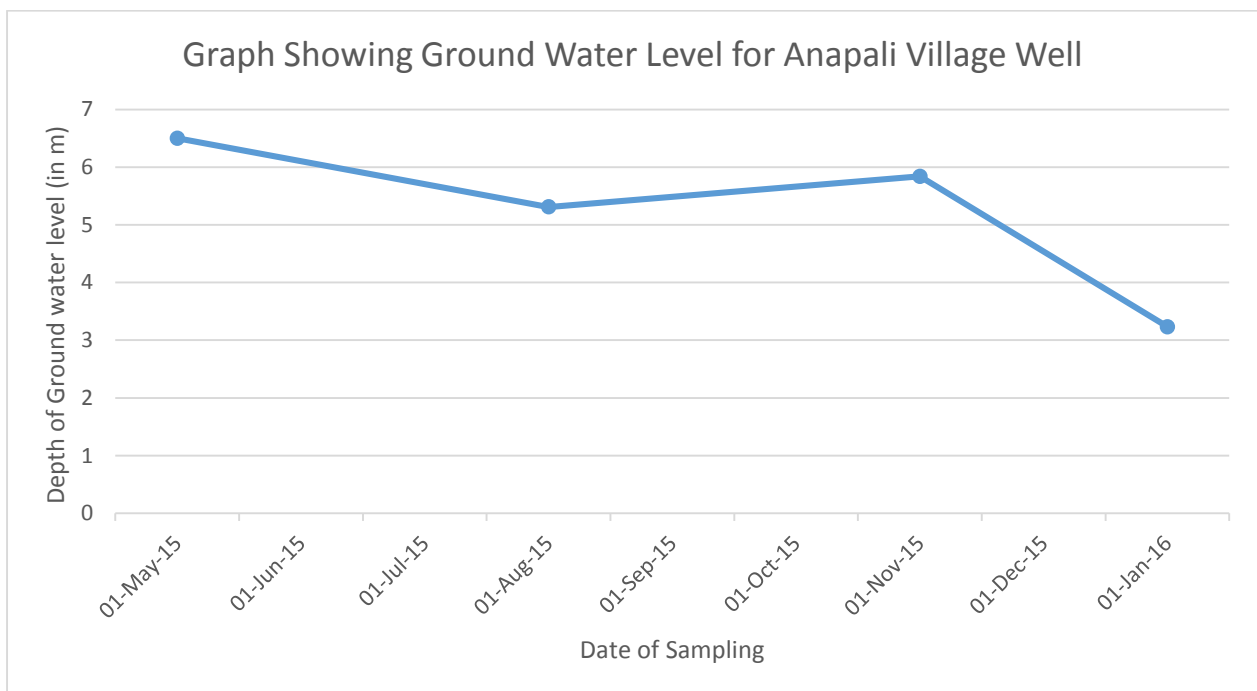
Table 178

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	Outlet of water treatment plant Anand Vihar	Outlet of water treatment plant Anand Vihar	Outlet to Water treatment plant Anand Vihar	outlet of water treatment plant anand vihar	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	11.05.15	1.8.2015	07.11.2015	6.2.2016	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	4	1	10
pH	7.67	7.63	7.83	8.34	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	44	60	52	200	600
Total Hardness(mg/L)	84	76	108	84	200	600
Iron(mg/L)		<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	16	24	18	250	1000
Residual Free chlorine(mg/L)	0.14	0.11	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	144	132	184	146	500	2000
Calcium(mg/L)	19.2	17.6	25.6	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	26	25	35	28	200	400
Nitrate(mg/L)	4.43	4.43	4.87	4.87	45	100
Fluoride(mg/L)	0.14	0.12	0.17	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.07	0.02	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

TABLES FOR GROUND WATER LEVEL DATA

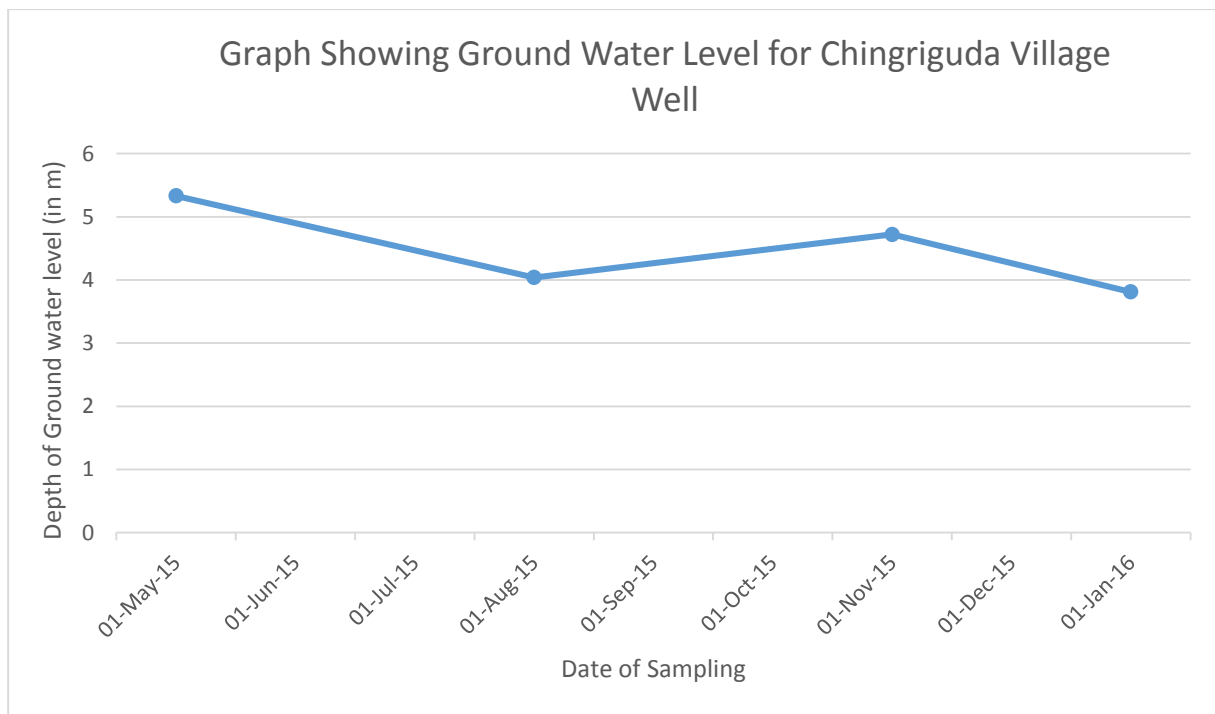
Project: Samleswari OCP
Monitoring Station: Anapali Village Well
Table 179

Date of sampling	Water level (Meters)
16-May-15	6.5
21-Aug-15	5.31
09-Nov-15	5.84
25-Jan-16	3.23



Project: Samleswari OCP
Monitoring Station: Chingriguda Village Well
Table 180

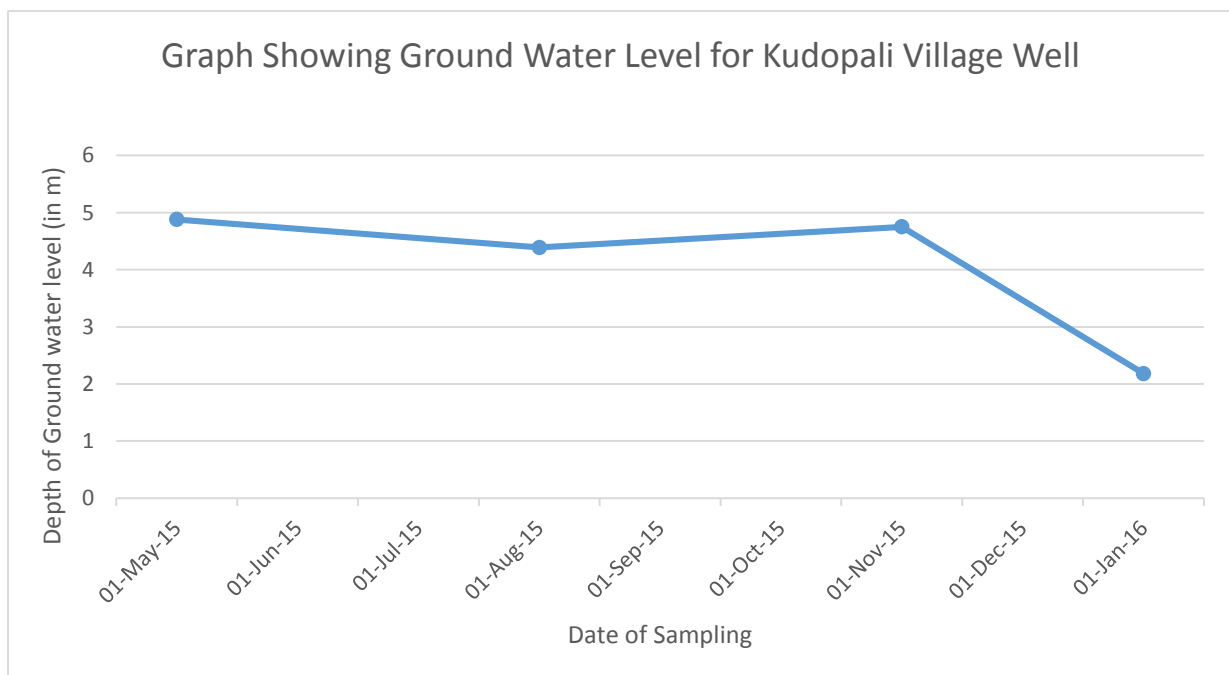
Date of sampling	Water level (Meters)
16-May-15	5.33
21-Aug-15	4.04
09-Nov-15	4.72
25-Jan-16	3.81



Project: Samleswari OCP
Monitoring Station: Kudopali Village Well

Table 181

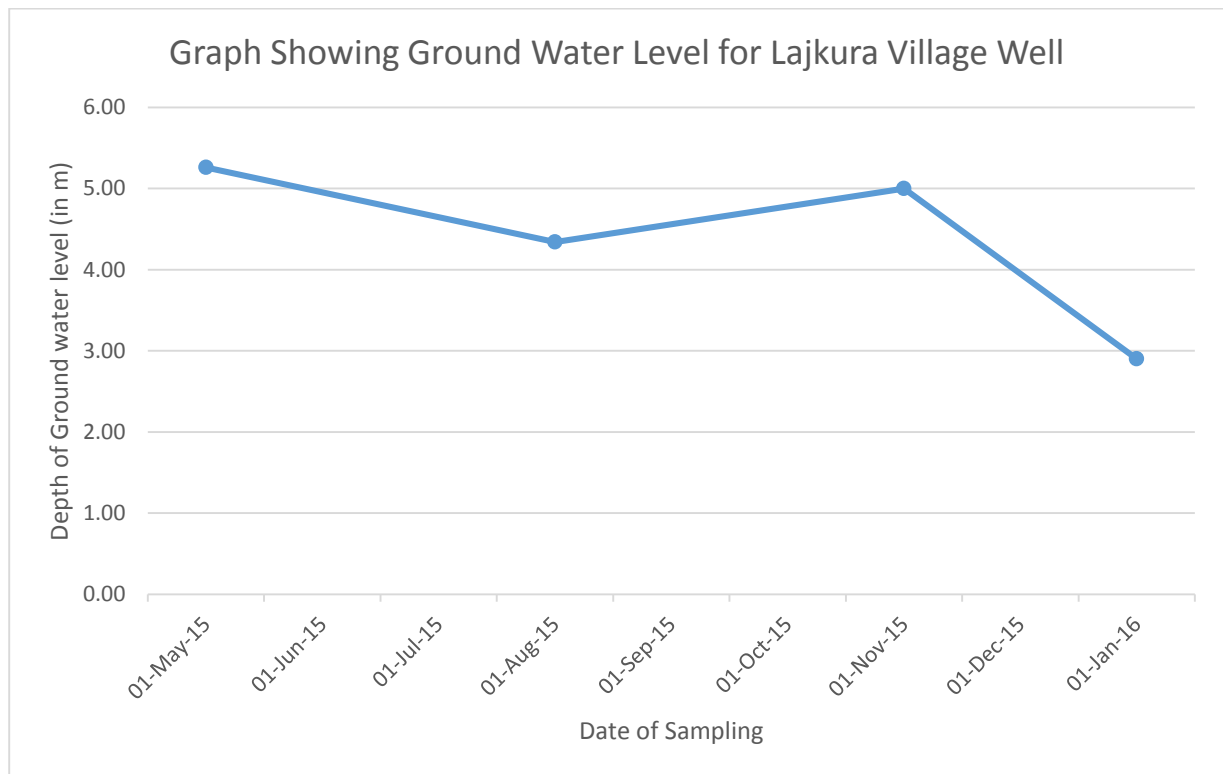
Date of sampling	Water level (Meters)
16-May-15	4.88
21-Aug-15	4.39
09-Nov-15	4.75
25-Jan-16	2.18



Project: Samleswari OCP
Monitoring Station: Lajkura Village Well

Table 182

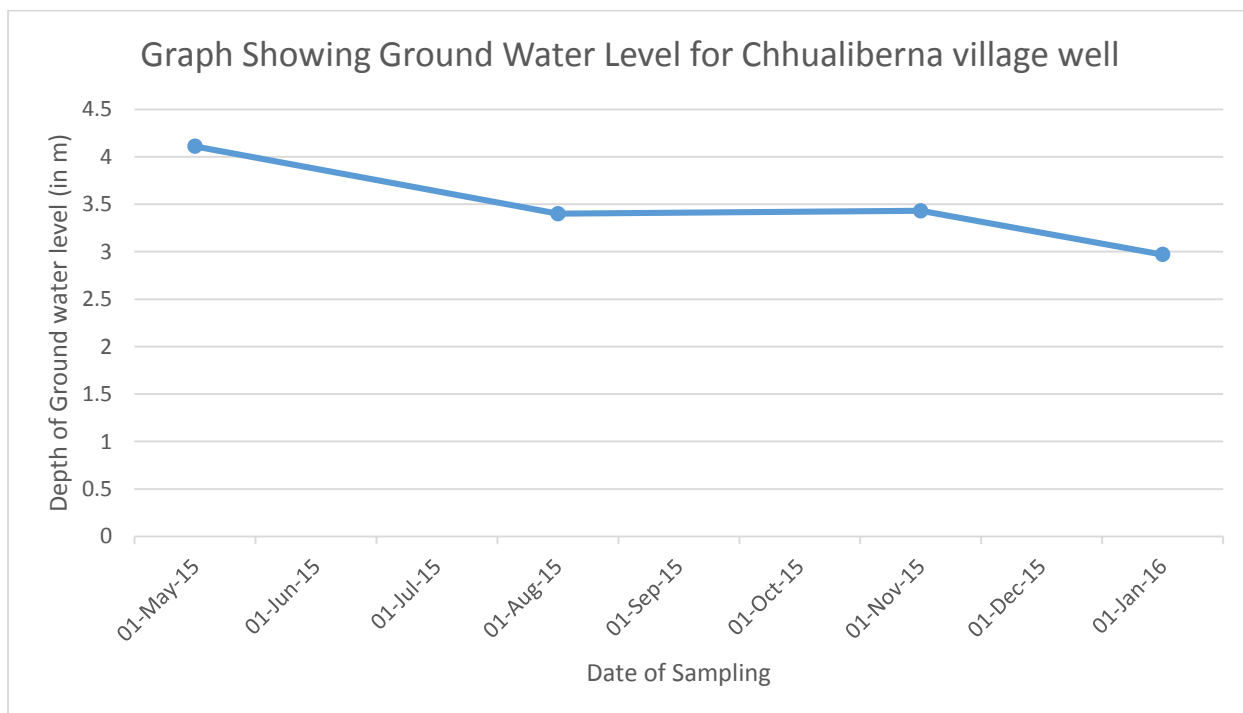
Date of sampling	Water level (Meters)
16-May-15	5.26
21-Aug-15	4.34
09-Nov-15	5.00
25-Jan-16	2.90



Project : Lajkura OCP
Monitoring Station : Chhauliberna Village Well

Table 183

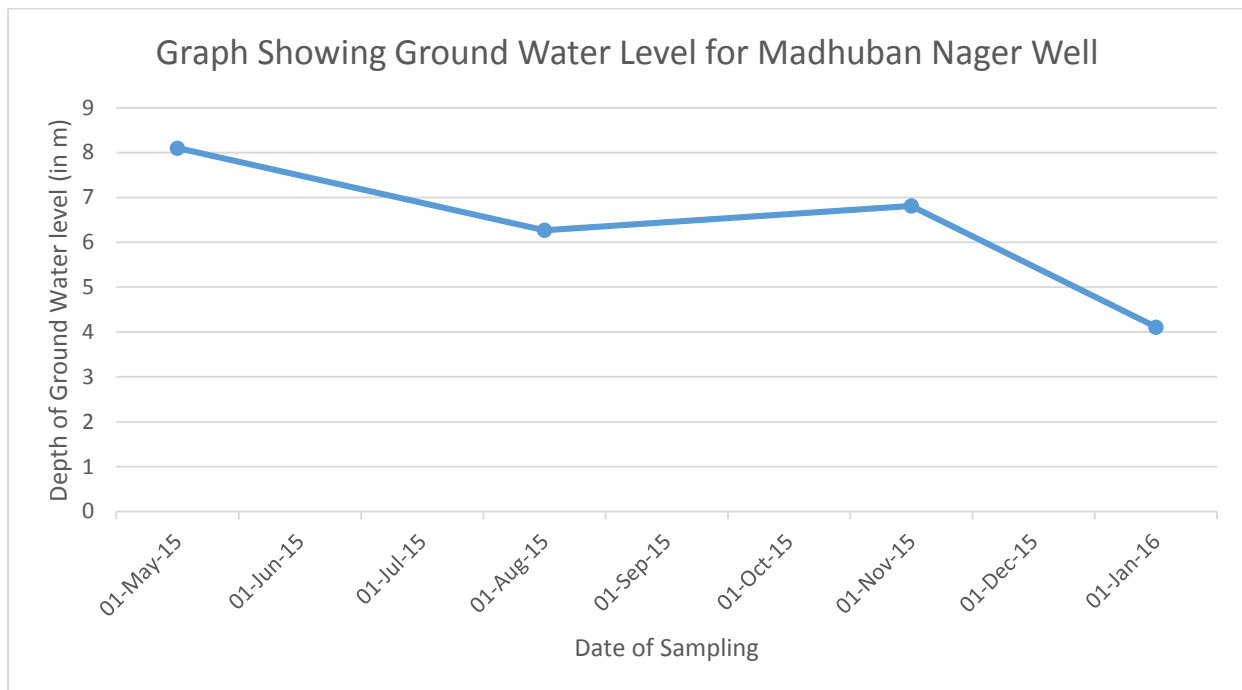
Date of sampling	Water level (Meters)
16-May-15	4.11
21-Aug-15	3.40
05-Nov-15	3.43
21-Jan-16	2.97



Project : Lajkura OCP
Monitoring Station : Madhuban Nagar Well

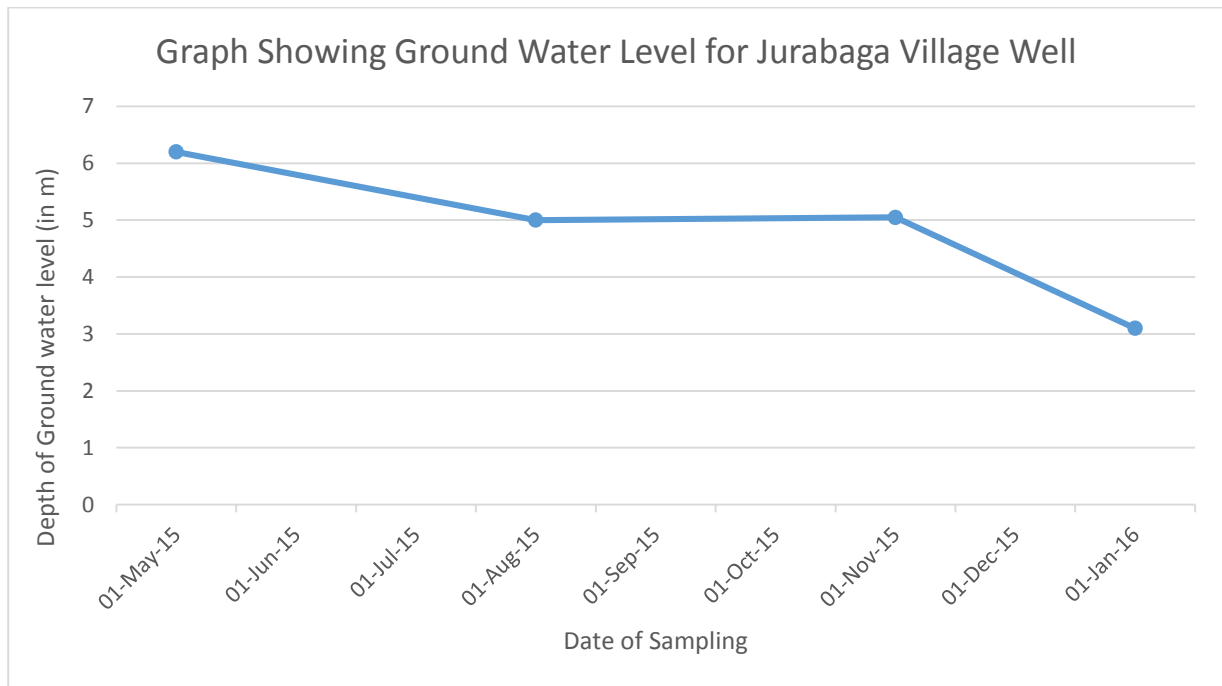
Table 184

Date of sampling	Water level (Meters)
16-May-15	8.1
21-Aug-15	6.27
05-Nov-15	6.81
21-Jan-16	4.11



Project: Lilari OCP
Monitoring Station: Jurabaga Village Well
Table 185

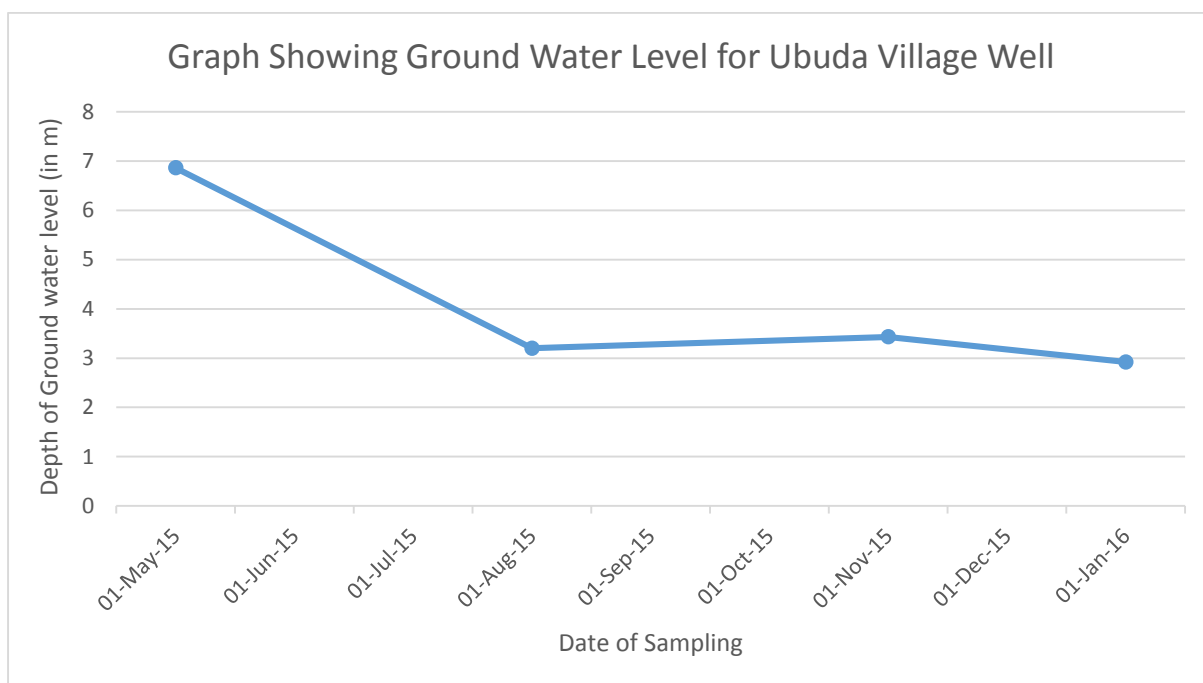
Date of sampling	Water level (Meters)
16-May-15	6.20
28-Aug-15	5.00
10-Nov-15	5.05
27-Jan-16	3.10



Project: Lakhanpur OCP
Monitoring Station: Ubuda Village Well

Table 186

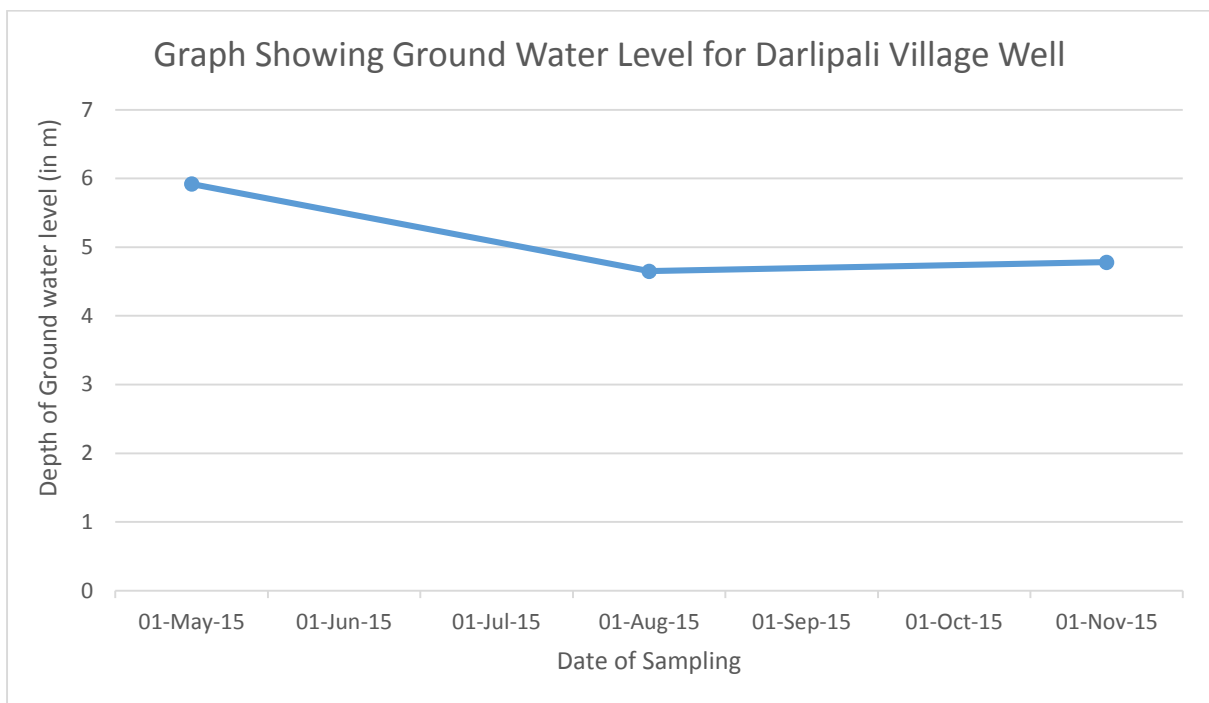
Date of sampling	Water level (Meters)
16-May-15	6.86
28-Aug-15	3.2
12-Nov-15	3.43
28-Jan-16	2.92



Project : Belpahar OCP
Monitoring Station: Darlipali Village Well

Table 187

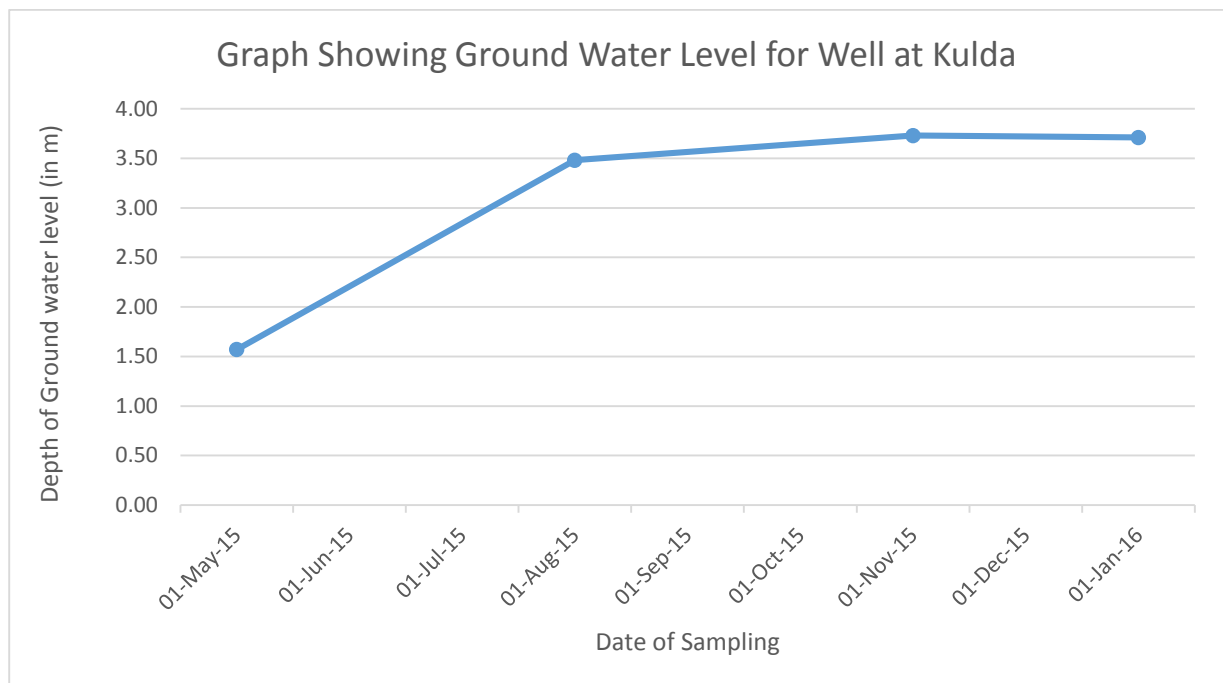
Date of sampling	Water level (Meters)
16-May-15	5.92
28-Aug-15	4.65
13-Nov-15	4.78



Project : Kulda OCP
Monitoring Station : Well at Kulda

Table 188

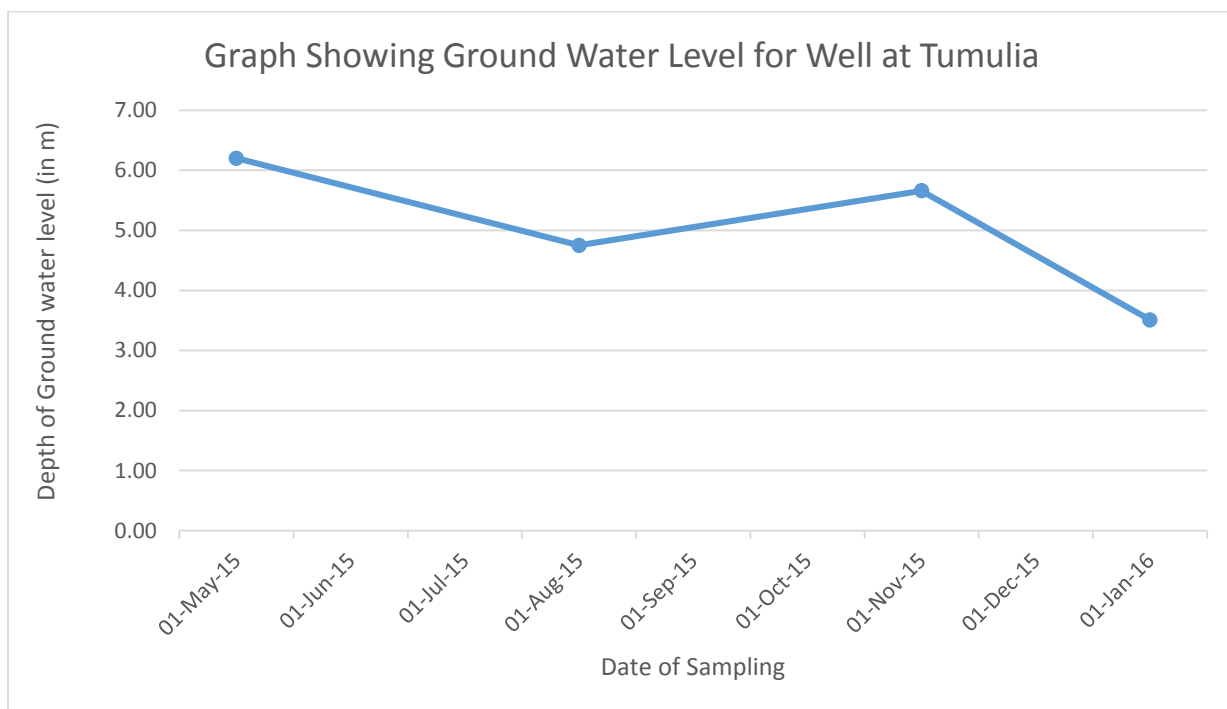
Date of sampling	Water level (Meters)
18-May-15	1.57
17-Aug-15	3.48
03-Nov-15	3.73
19-Jan-16	3.71



Project : Kulda OCP
Monitoring Station : Well at Tumulia

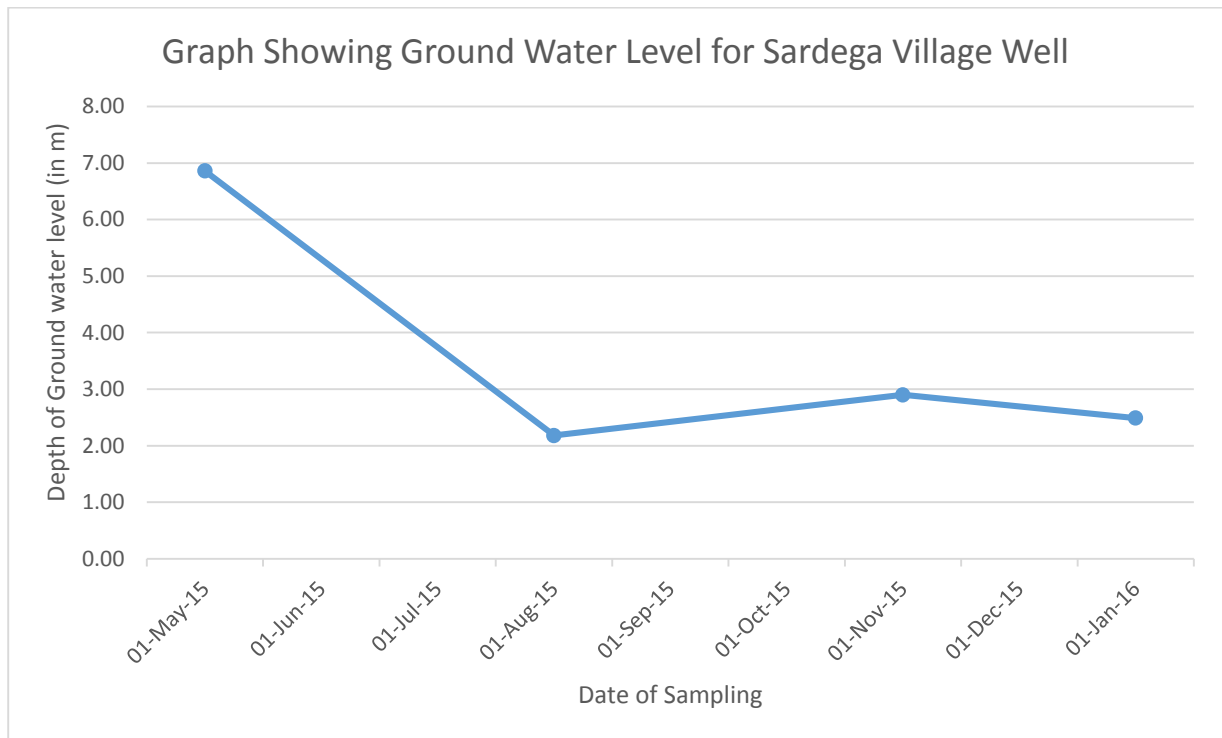
Table 189

Date of sampling	Water level (Meters)
18-May-15	6.20
17-Aug-15	4.75
03-Nov-15	5.66
19-Jan-16	3.51



Project : Basundhara OCP
Monitoring Station : Sardega Village Well
Table 190

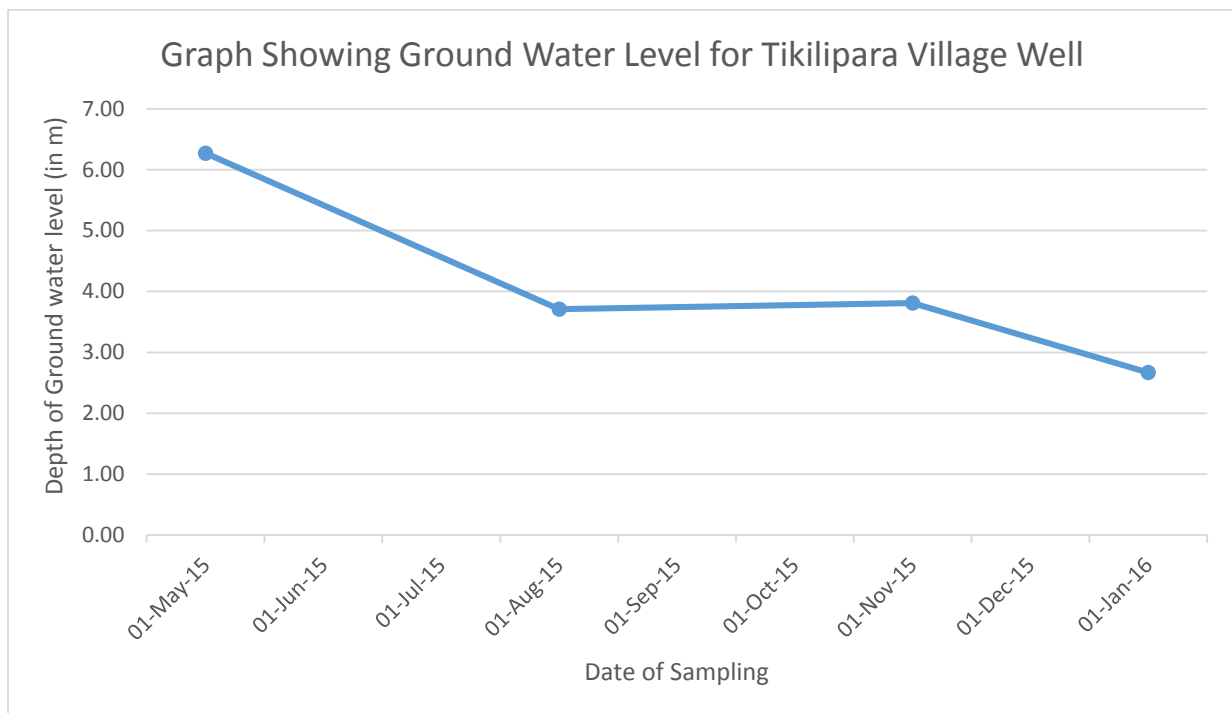
Date of sampling	Water level (Meters)
18-May-15	6.86
17-Aug-15	2.18
02-Nov-15	2.90
19-Jan-16	2.49



Project : Basundhara OCP
Monitoring Station: Tikilipara Village Well

Table 191

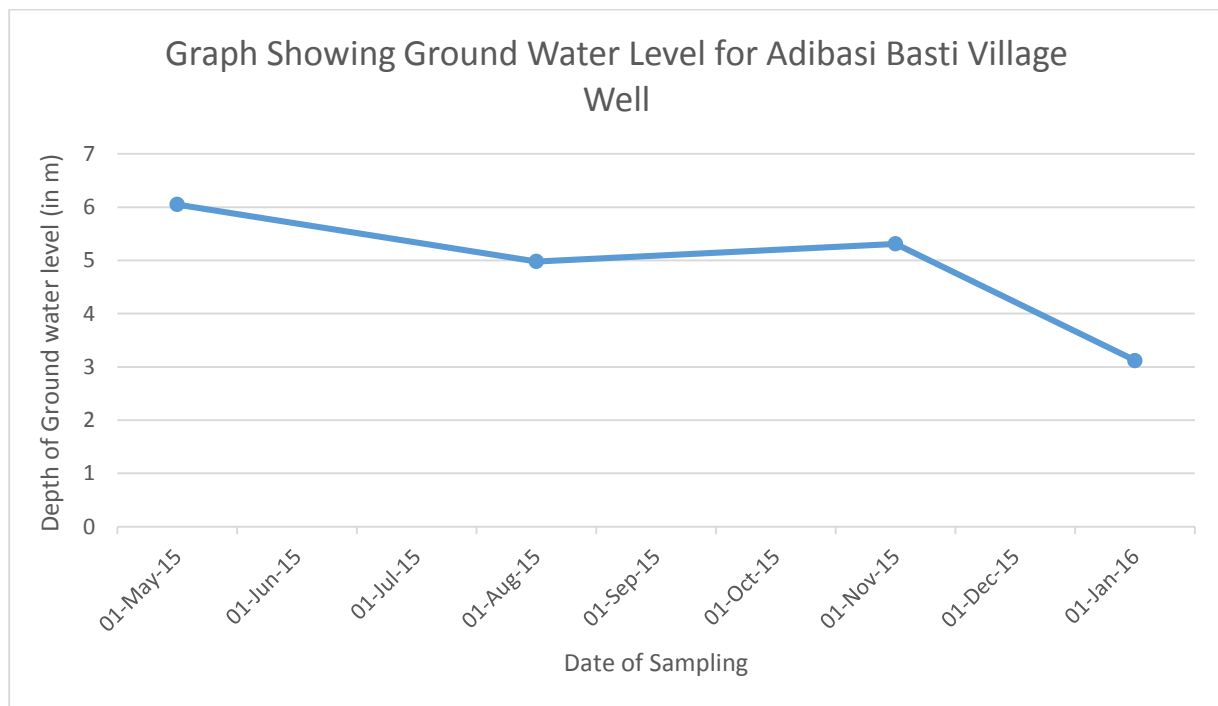
Date of sampling	Water level (Meters)
18-May-15	6.27
17-Aug-15	3.71
02-Nov-15	3.81
19-Jan-16	2.67



Project : Orient OCP
Monitoring Station : Adibasi Basti Village Well

Table 192

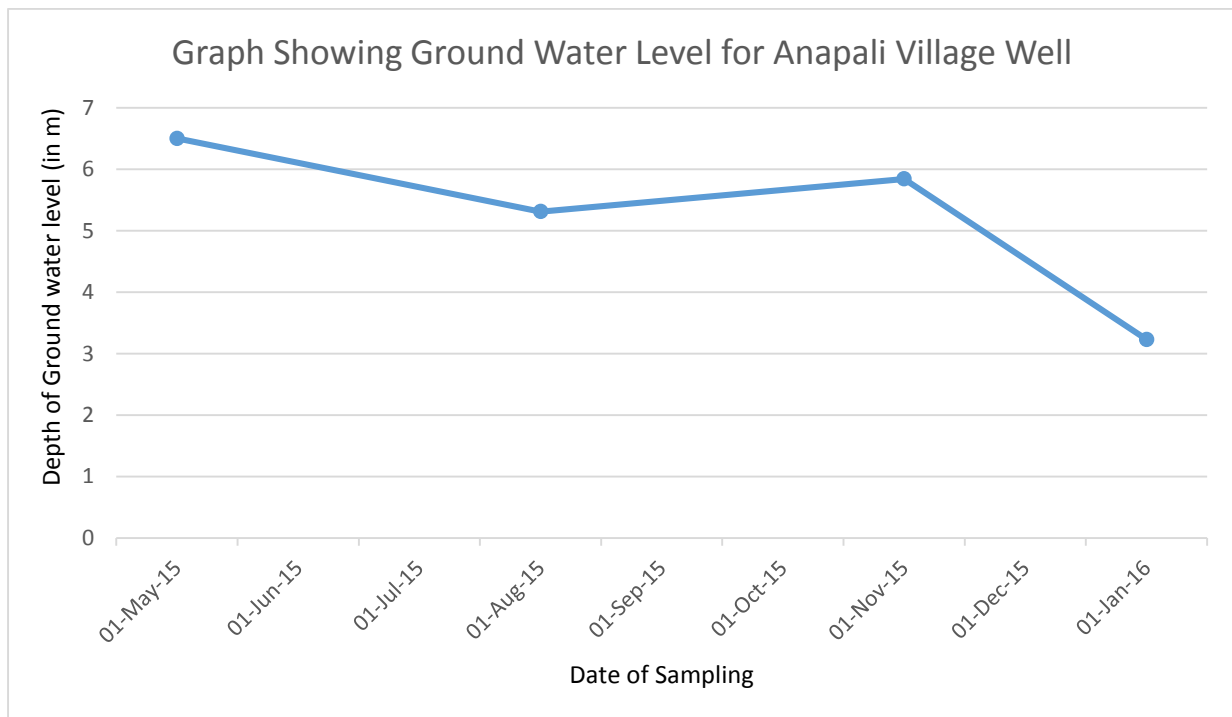
Date of Sampling	Water level (Meters)
16-May-15	6.05
21-Aug-15	4.98
06-Nov-15	5.31
20-Jan-16	3.12



Project: Orient OCP
Monitoring Station: Anapali Village Well

Table 193

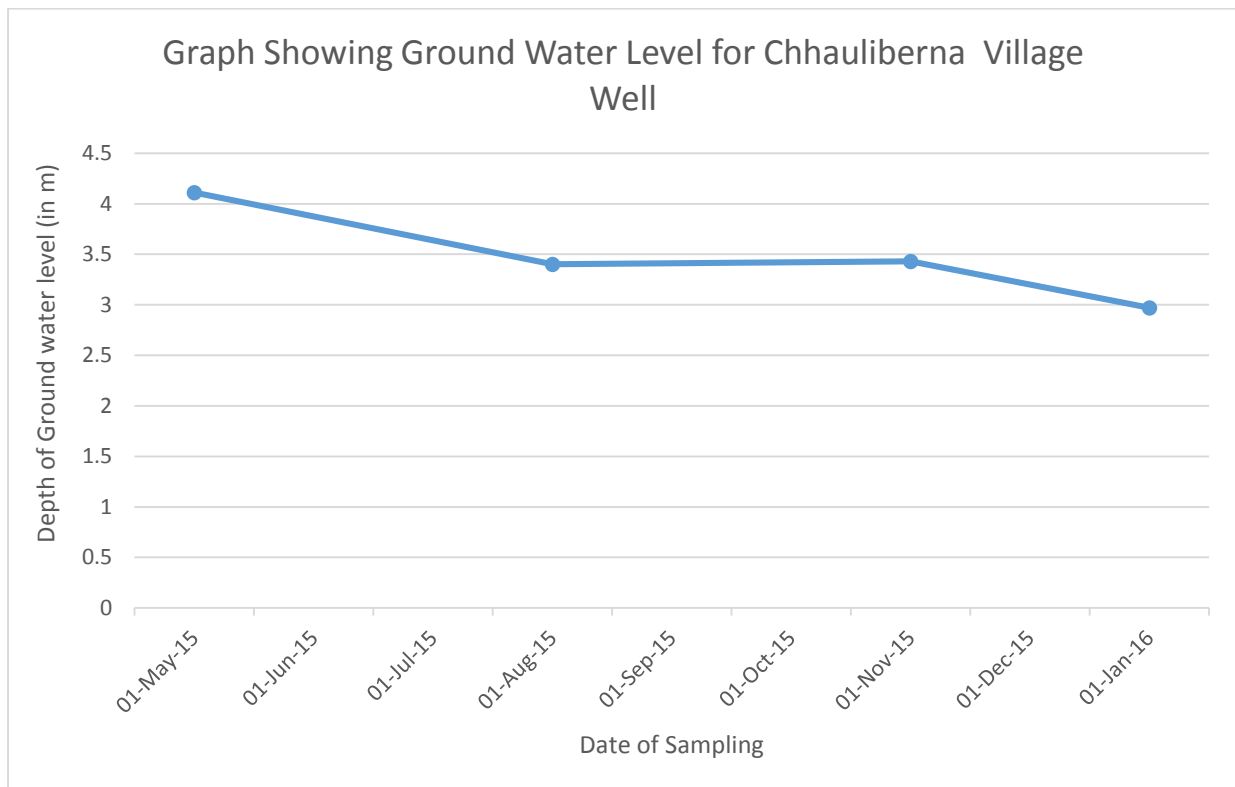
Date of Sampling	Water level (Meters)
16-May-15	6.5
21-Aug-15	5.31
09-Nov-15	5.84
25-Jan-16	3.23



Project: Orient OCP
Monitoring Station: Chhauliberna Village Well

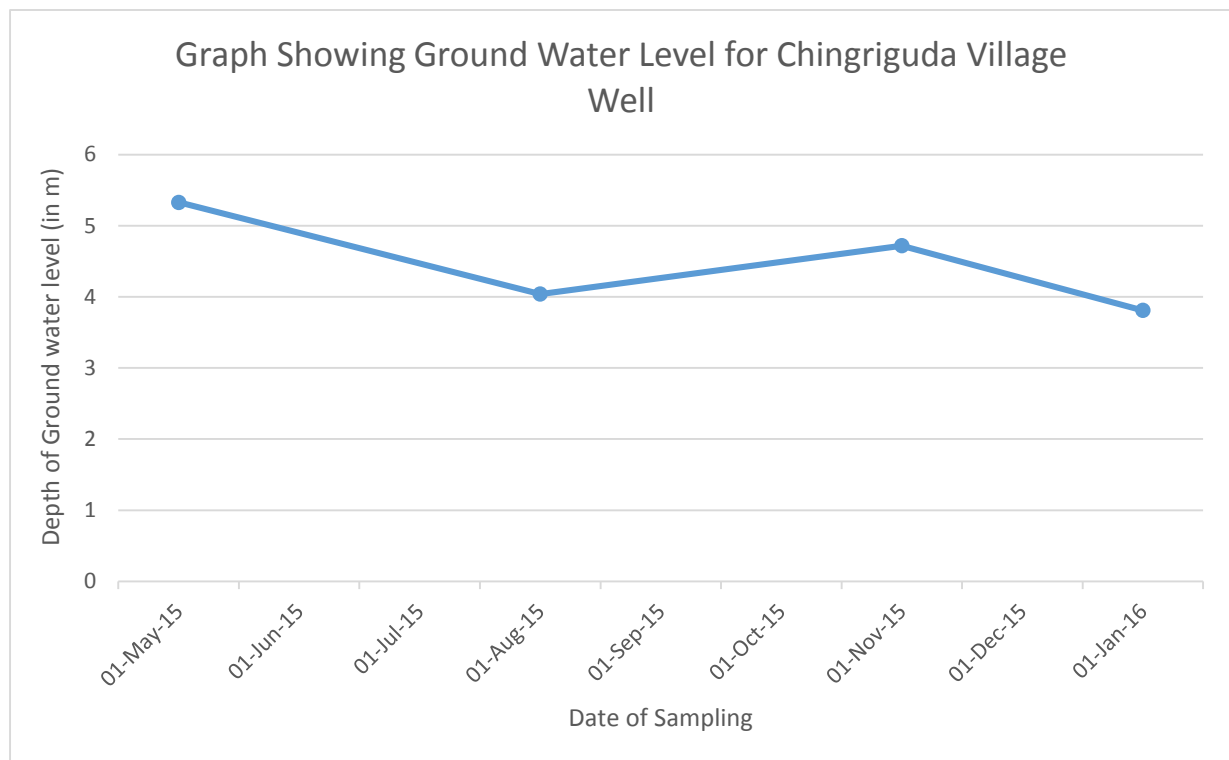
Table 194

Date of Sampling	Water level (Meters)
16-May-15	4.11
21-Aug-15	3.4
05-Nov-15	3.43
25-Jan-16	2.97



Project: Orient OCP
Monitoring Station: Chingriguda Village Well
Table 195

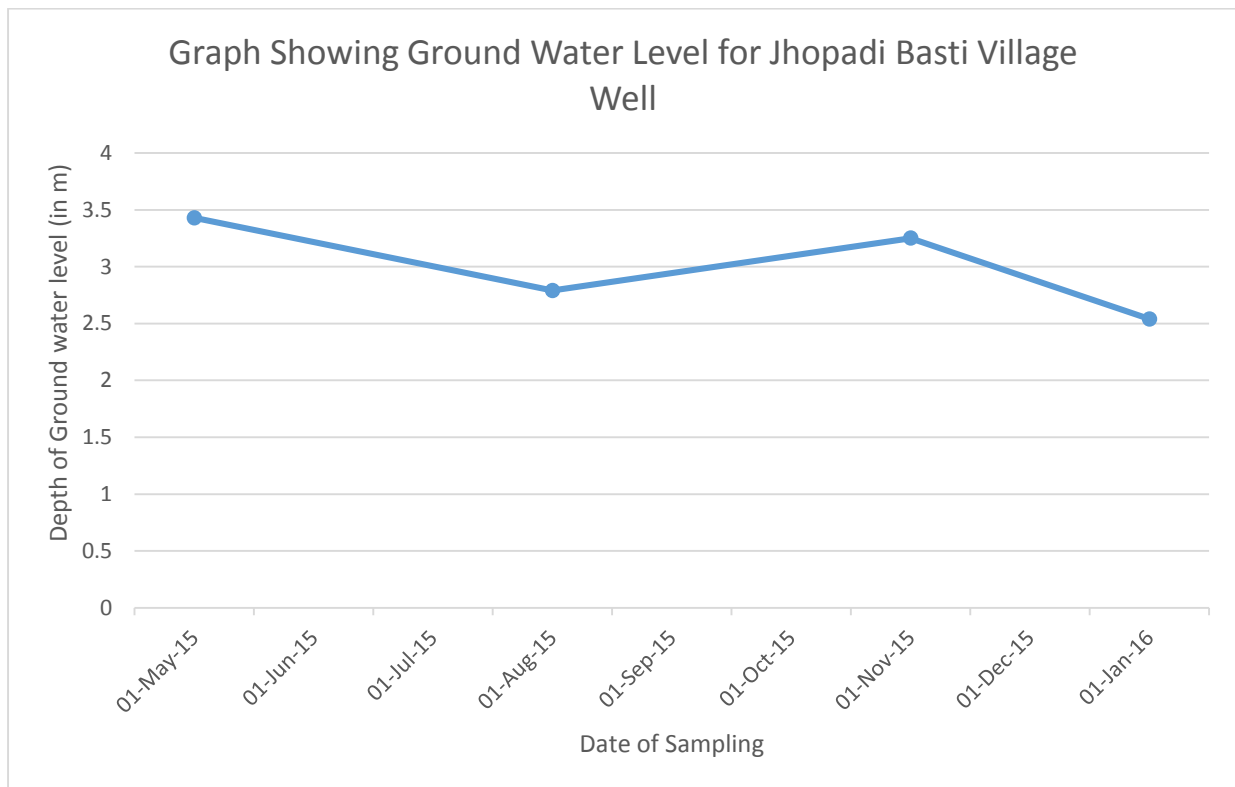
Date of Sampling	Water level (Meters)
16-May-15	5.33
21-Aug-15	4.04
09-Nov-15	4.72
25-Jan-16	3.81



Project: Orient OCP
Monitoring Station: Jhopadi Basti Village Well

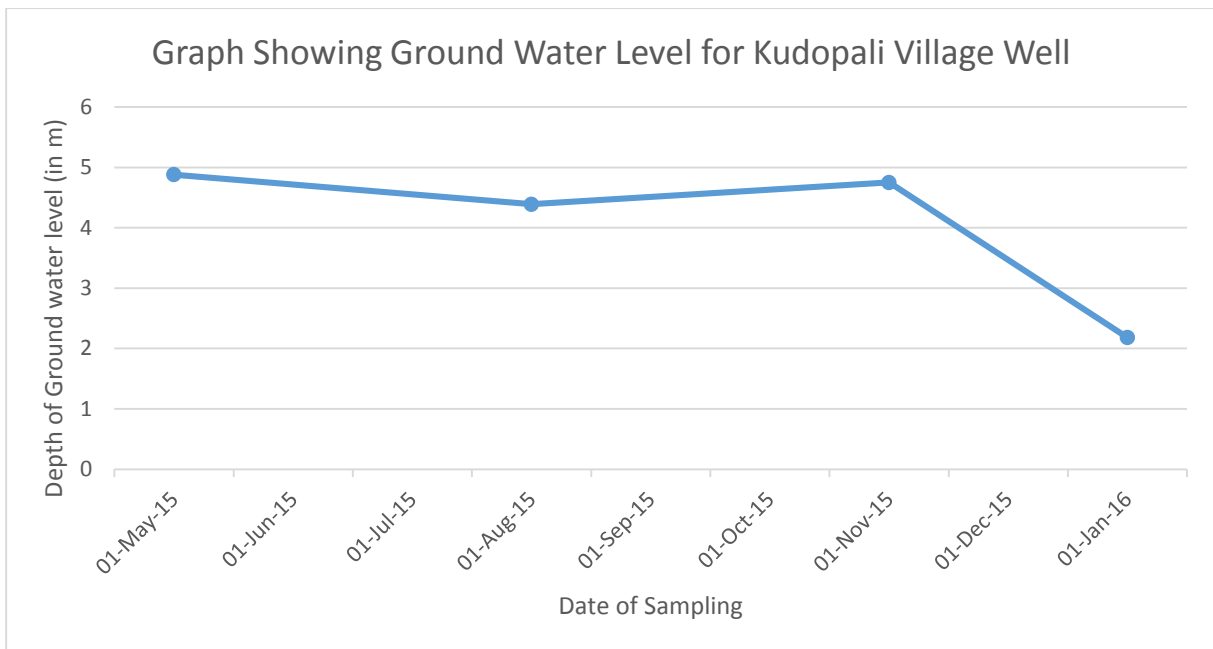
Table 196

Date of Sampling	Water level (Meters)
16-May-15	3.43
21-Aug-15	2.79
06-Nov-15	3.25
20-Jan-16	2.54



Project: Orient OCP
Monitoring Station: Kudopali Village Well
Table 197

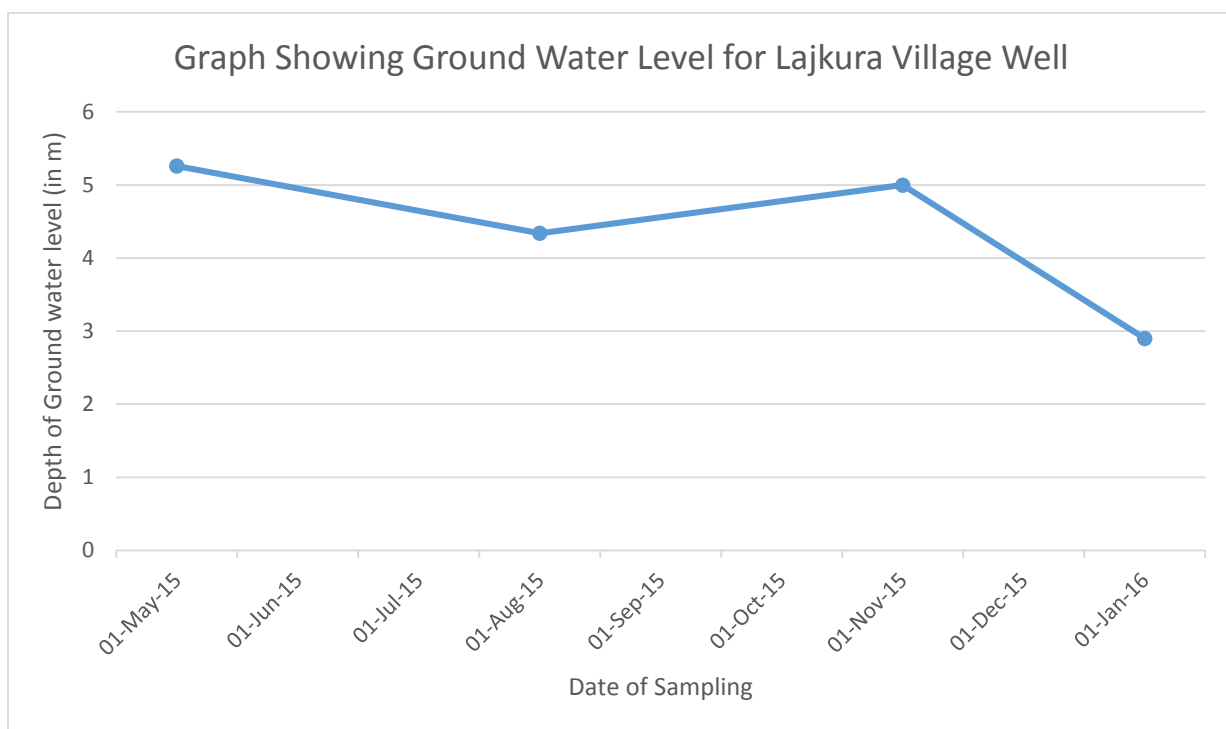
Date of Sampling	Water level (Meters)
16-May-15	4.88
21-Aug-15	4.39
09-Nov-15	4.75
25-Jan-16	2.18



Project: Orient OCP
Monitoring Station: Lajkura Village Well

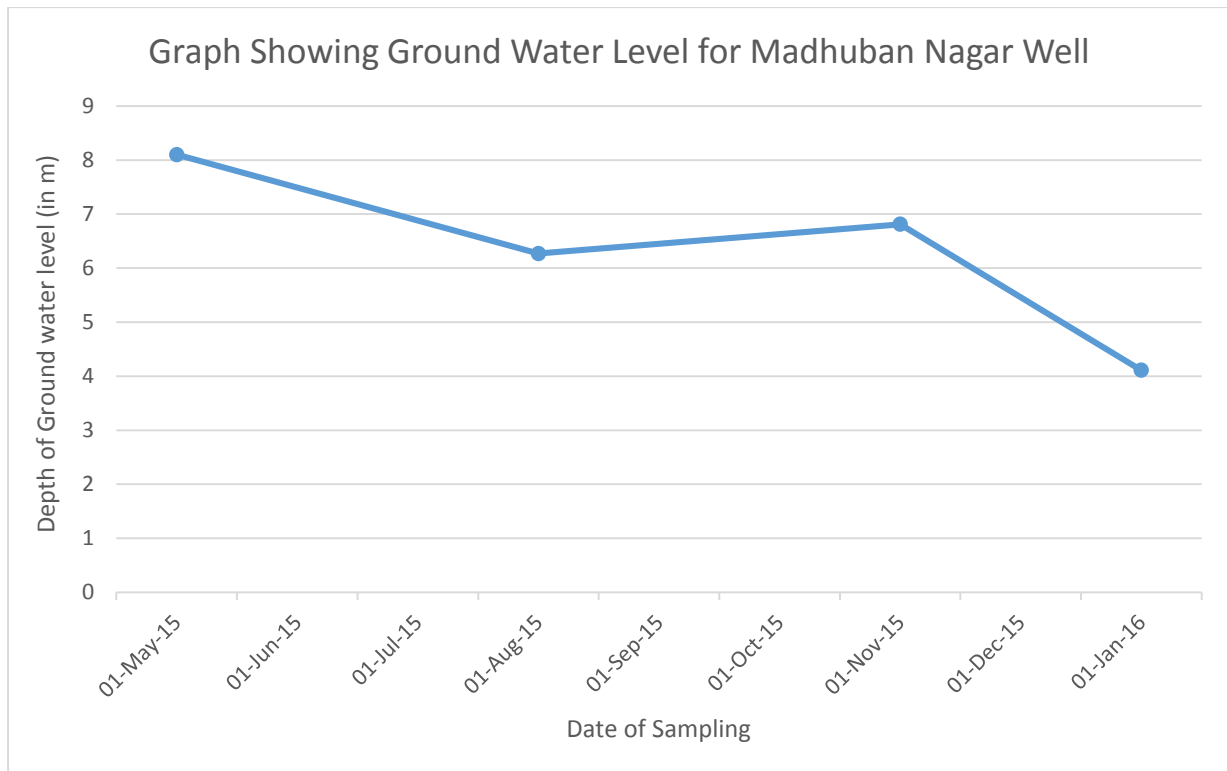
Table 198

Date of Sampling	Water level (Meters)
16-May-15	5.26
21-Aug-15	4.34
09-Nov-15	5
25-Jan-16	2.9



Project: Orient OCP
Monitoring Station: Madhuban Nagar Well
Table 199

Date of Sampling	Water level (Meters)
16-May-15	8.1
21-Aug-15	6.27
05-Nov-15	6.81
21-Jan-16	4.11



TABLES FOR SURFACE WATER QUALITY DATA

Table 200

Project	Lajkura (OCP)	Lajkura (OCP)	Lajkura OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bagachoppajhor Baghmara village as u/s for LOCP	Bagachoppajho r Baghmara village as u/s for LOCP	Bagachoppa jhor Bagmara village as u/s for LOCP	
Dt. of sampling	24.8.2015	9.11.2015	5.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.4	2.6	3
Cadmium(mg/L)	0.0025	0.0022	0.002	0.01
Chlorides(mg/L)	14	16	12	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.3	4.1	4
Fluoride(mg/L)	0.29	0.27	0.24	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	0.11	0.1	0.12	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	3.1	3	2.8	50
pH	8.16	8.14	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	54	52	56	400
Total Dissolved Solids(mg/L)	174	178	172	1500
TSS(mg/L)	40	38	36	-
Zinc(mg/L)	0.52	0.54	0.51	15
Total Hardness(mg/L)	124	120	122	-
Mangnese(mg/L)	0.2	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 201

Project	Lajkura (OCP)	Lajkura (OCP)	Lajkura OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bagachoppa jhor Gangapur village as d/s for LOCP	Bagachoppajhor Gangapur village as d/s for LOCP	Bagachoppa jhor Gangapur village as d/s for LOCP	
Dt. of sampling	24.8.2015	9.11.2015	5.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.4	2.8	3
Cadmium(mg/L)	0.0018	0.0019	0.0016	0.01
Chlorides(mg/L)	12	14	16	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.4	4.2	4
Fluoride(mg/L)	0.25	0.24	0.26	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	<0.06	<0.06	<0.06	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	3.1	3	3.2	50
pH	8.32	8.18	8.2	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.004	0.05
Sulphate(mg/L)	51	49	58	400
Total Dissolved Solids(mg/L)	162	174	176	1500
TSS(mg/L)	36	34	38	-
Zinc(mg/L)	0.17	0.21	0.28	15
Total Hardness(mg/L)	104	118	116	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Project	Lajkura (OCP)	Lajkura (OCP)	Lajkura OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bagachoppa jhor before confluence point with Ib River	Bagachoppa jhor before confluence point with Ib River	Bagachoppa jhor before confluence point with Ib River	
Dt. of sampling	24.8.2015	9.11.2015	5.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.8	3
Cadmium(mg/L)	0.0009	0.0008	0.0009	0.01
Chlorides(mg/L)	10	12	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.2	4.4	4
Fluoride(mg/L)	0.56	0.53	0.57	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	1.24	121	1.18	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	1.33	1.31	1.26	50
pH	1.19	7.17	7.22	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.004	0.05
Sulphate(mg/L)	3	4	8	400
Total Dissolved Solids(mg/L)	78	74	78	1500
TSS(mg/L)	124	120	124	-
Zinc(mg/L)	0.27	0.29	0.26	15
Total Hardness(mg/L)	52	50	53	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 202

Project	Samaleswari (OCP)	Samaleswari (OCP)	Samaleswari OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	PandrenJhor stream near Muchabahal village u/s of SOCP	PandrenJhor stream near Muchabahal village u/s of SOCP	Pandren Jhor stream near Muchabahal village u/s of SOCP	
Dt. of sampling	24.8.2015	9.11.2015	5.2.2016	
Arsenic (mg/L)	<0.002	<0.005	<0.005	0.2
BOD (mg/L)	2	3	4	3
Cadmium (mg/L)	0.0008	0.0007	0.0006	0.01
Chlorides (mg/L)	12	14	16	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen (mg/L)	4.4	4.2	4.4	4
Fluoride (mg/L)	0.18	0.16	0.14	1.5
Hexavalent Chromium (mg/L)	<0.01	<0.06	<0.06	0.05
Iron (mg/L)	0.1	0.11	0.13	50
Lead (mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate (mg/L)	1.33	1.31	1.32	50
pH	7.82	7.76	7.72	6.5-8.5
Phenolic Compound (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium (mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate (mg/L)	57	55	52	400
Total Dissolved Solids(mg/L)	158	154	158	1500
TSS(mg/L)	40	44	48	-
Zinc (mg/L)	0.41	0.37	0.33	15
Total Hardness(mg/L)	96	88	82	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Project	Samaleswari (OCP)	Samaleswari (OCP)	Samaleswari OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	PandrenJhor before confluence point with LilariNallah	PandrenJhor before confluence point with LilariNallah	Pandren Jhor before confluence point with Lilari Nallah	
Dt. of sampling	24.8.2015	9.11.2015	5.2.2016	
Arsenic (mg/L)	<0.002	<0.005	<0.005	0.2
BOD (mg/L)	2.4	2.6	3	3
Cadmium (mg/L)	0.0017	0.015	0.0012	0.01
Chlorides (mg/L)	12	12	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen (mg/L)	404	4.1	4.3	4
Fluoride (mg/L)	0.19	0.17	0.15	1.5
Hexavalent Chromium (mg/L)	<0.01	<0.06	<0.06	0.05
Iron (mg/L)	0.08	0.06	0.07	50
Lead (mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate (mg/L)	2.2	2.1	2.3	50
pH	7.75	7.71	7.76	6.5-8.5
Phenolic Compound (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium (mg/L)	0.002	<0.002	0.004	0.05
Sulphate (mg/L)	49	47	48	400
Total Dissolved Solids(mg/L)	158	160	162	1500
TSS(mg/L)	68	65	68	-
Zinc (mg/L)	0.51	0.49	0.45	15
Total Hardness(mg/L)	104	102	104	-
Mangnese(mg/L)	0.03	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 203

Project	Belphar OCP	Belphar OCP	Belpahar OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Lilarinallah near Gouraparahabillage at bridge point og NH 200 as u/s water for Lakhanpur OCP &Belphar OCP	Lilarinallah near Gouraparahabillage at bridge point of NH 200 as u/s water for Lakhanpur OCP &Belphar OCP	Lilarinallah near Gouraparha village at bridge point of NH 200 as u/s water for Lakhanpur OCP &Belphar OCP	
Dt. of sampling	22.08.15	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.4	3
Cadmium(mg/L)	BDL	0.0012	0.0005	0.01
Chlorides(mg/L)	16	14	12	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.2	4.3	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	0.71	0.68	0.58	50
Lead(mg/L)	0.011	0.008	0.009	0.1
Nitrate(mg/L)	6.2	6	6.1	50
pH	8.19	8.12	8	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.004	0.05
Sulphate(mg/L)	36	38	36	400
Total Dissolved Solids(mg/L)	120	116	112	1500
TSS(mg/L)	102	104	110	-
Zinc(mg/L)	0.1	0.14	0.16	15
Total Hardness(mg/L)	84	82	86	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Project	Belphar OCP	Belphar OCP	Belpahar OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Lilarinallah near Kirarama village as d/s of lakhanpur OCP &Belpahar OCP	Lilarinallah near Kirarama village as d/s of lakhanpur OCP &Belpahar OCP	Lilarinallah near Kirarama village as d/s of lakhanpur OCP &Belpahar OCP	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	3	2.8	2.6	3
Cadmium(mg/L)	0.0032	0.0028	0.0022	0.01
Chlorides(mg/L)	20	16	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.1	4	4.1	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	1.28	1.24	1.17	50
Lead(mg/L)	0.011	0.012	0.011	0.1
Nitrate(mg/L)	6.2	6.1	5.92	50
pH	7.8	7.88	7.83	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.005	0.05
Sulphate(mg/L)	34	36	40	400
Total Dissolved Solids(mg/L)	104	108	110	1500
TSS(mg/L)	146	142	146	-
Zinc(mg/L)	0.19	0.18	0.2	15
Total Hardness(mg/L)	76	74	78	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 204

Project	Belphar OCP	Belphar OCP	Belpahar OCP	
Monitoring Station	Ib river near Dumermunda village as d/s of the coal fields before joining to Hirakud Reservoir.	Ib river near Dumermunda village as d/s of the coal fields before joining to Hirakud Reservoir.	Ib river near Dumermunda village as d/s of the coal fields before joining to Hirakud Reservoir.	IS:2296-1982 Tolerance for Inland surface water (Class C)
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	3	2.8	3
Cadmium(mg/L)	0.0029	0.0026	0.0021	0.01
Chlorides(mg/L)	16	12	8	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.3	4.4	4
Fluoride(mg/L)	0.12	0.11	0.13	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	0.97	0.94	0.96	50
Lead(mg/L)	0.015	0.013	0.08	0.1
Nitrate(mg/L)	3.99	3.92	4.1	50
pH	8.1	8.15	8.2	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	4	5	7	400
Total Dissolved Solids(mg/L)	60	57	55	1500
TSS(mg/L)	120	117	114	-
Zinc(mg/L)	0.42	0.38	0.36	15
Total Hardness(mg/L)	64	62	66	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 205

Project	Belphar OCP	Belphar OCP	Belpahar OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Hirkud reservoir for impact assessment of the coal field	Hirkud reservoir for impact assessment of the coal field	Hirakud reservoir for impact assessment of the coal field	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.2	2.4	3
Cadmium(mg/L)	0.0009	0.0008	0.0004	0.01
Chlorides(mg/L)	12	14	12	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.4	4.3	4
Fluoride(mg/L)	0.22	0.24	0.22	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.06	0.05
Iron(mg/L)	<0.06	0.007	0.007	50
Lead(mg/L)	0.009	3	0.006	0.1
Nitrate(mg/L)	3.1	7.9	2.9	50
pH	7.8	7.8	7.86	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	41	43	46	400
Total Dissolved Solids(mg/L)	156	158	162	1500
TSS(mg/L)	36	38	42	-
Zinc(mg/L)	0.25	0.23	0.21	15
Total Hardness(mg/L)	128	130	126	-
Manganese(mg/L)	0.05	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 206

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pulijhor stream near Tingismal village as u/s for Lakhanpur OCP	Pulijhor stream near Tingismal village as u/s for Lakhanpur OCP	Pulijhor stream near Tingismal village as u/s for Lakhanpur OCP	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.2	2.4	3
Cadmium(mg/L)	0.0012	0.0011	0.0013	0.01
Chlorides(mg/L)	40	38	34	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.4	4.6	4
Fluoride(mg/L)	<0.02	<0.02	<0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	<0.06	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	2.66	2.62	2.57	50
pH	7.9	7.86	7.92	6.5-8.5
Phenolic Compound1 (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.002	0.05
Sulphate(mg/L)	47	45	42	400
Total Dissolved Solids(mg/L)	158	154	151	1500
TSS(mg/L)	32	36	38	-
Zinc(mg/L)	0.22	0.22	0.18	15
Total Hardness(mg/L)	108	112	116	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 207

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pulijhor stream near Darlipalil village before confluence to Lilarinallah as d/s water of Lakhanpur OCP	Pulijhor stream near Darlipalil village before confluence to Lilarinallah as d/s water of Lakhanpur OCP	Pulijhor stream near Darlipalil village before confluence to Lilarinallah as d/s water of Lakhanpur OCP	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	3	2.8	2.6	3
Cadmium(mg/L)	0.0007	0.0008	0.0015	0.01
Chlorides(mg/L)	12	10	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.1	4.3	4.4	4
Fluoride(mg/L)	0.1	0.2	0.23	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	<0.06	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	<0.5	BDL	<0.50	50
pH	7.92	7.9	7.84	6.5-8.5
Phenolic Compound1 (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.005	0.05
Sulphate(mg/L)	51	49	45	400
Total Dissolved Solids(mg/L)	158	154	156	1500
TSS(mg/L)	182	177	168	-
Zinc(mg/L)	0.16	0.14	0.12	15
Total Hardness(mg/L)	116	115	118	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 208

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Lilarinallah at bridge point before joining Ib River near Dudolsingha village	Lilarinallah at bridge point before joining Ib River near Dudolsingha village	Lilarinallah at bridge point before joining Ib River near Dudolsingha village	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.4	3
Cadmium(mg/L)	0.0011	0.0009	0.0007	0.01
Chlorides(mg/L)	16	12	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.2	4.1	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.84	0.78	0.74	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	4.87	4.67	4.46	50
pH	8.29	8.32	8.26	6.5-8.5
Phenolic Compound1 (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.003	0.05
Sulphate(mg/L)	3	5	8	400
Total Dissolved Solids(mg/L)	86	83	81	1500
TSS(mg/L)	110	114	118	-
Zinc(mg/L)	0.54	0.36	0.38	15
Total Hardness(mg/L)	64	78	74	-
Mangnese(mg/L)	0.07	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 209

Project	Lakhanpur OCP	Lakhanpur OCP	Lakhanpur OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water at Samra village	Pond water at Samra village	Pond water at Samra village	
Dt. of sampling	22.8.2015	13.11.2015	10.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.4	2.6	3
Cadmium(mg/L)	0.0014	0.0012	0.0014	0.01
Chlorides(mg/L)	18	16	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.4	4.6	4
Fluoride(mg/L)	0.2	0.22	0.24	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.69	0.65	0.62	50
Lead(mg/L)	0.008	0.007	0.006	0.1
Nitrate(mg/L)	5.76	5.63	5.66	50
pH	7.8	7.72	7.78	6.5-8.5
Phenolic Compound1 (mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	0.002	<0.002	0.003	0.05
Sulphate(mg/L)	36	34	38	400
Total Dissolved Solids(mg/L)	104	102	108	1500
TSS(mg/L)	132	130	136	-
Zinc(mg/L)	0.38	0.34	0.32	15
Total Hardness(mg/L)	76	73	76	-
Manganese(mg/L)	0.25	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 210

Project	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Basundhara river near kulaparaha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP.	Basundhara river near kulaparaha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP.	Basundhara river near kulaparaha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP.	
Dt. of sampling	18.8.2015	03.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.6	2.3	3
Cadmium(mg/L)	0.0013	0.002	0.0005	0.01
Chlorides(mg/L)	14	10	8	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.6	4.5	4
Fluoride(mg/L)	0.05	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.62	0.61	0.58	50
Lead(mg/L)	0.031	0.002	<0.005	0.1
Nitrate(mg/L)	4.87	5.2	4.9	50
pH	8.6	8.15	7.98	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	8	9	12	400
Total Dissolved Solids(mg/L)	68	62	66	1500
TSS(mg/L)	38	34	38	-
Zinc(mg/L)	1.46	1.42	1.32	15
Total Hardness(mg/L)	40	42	48	-
Manganese(mg/L)	0.28	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 211

Project	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP.	Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP.	Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP.	
Dt. of sampling	18.8.2015	03.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	2.4	2.2	3
Cadmium(mg/L)	0.002	0.003	5	0.01
Chlorides(mg/L)	16	12	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.2	4.4	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.55	0.52	0.55	50
Lead(mg/L)	0.019	0.017	0.013	0.1
Nitrate(mg/L)	3.1	3.3	3.1	50
pH	8.3	8.25	8.2	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	8	8	10	400
Total Dissolved Solids(mg/L)	62	60	58	1500
TSS(mg/L)	44	42	44	-
Zinc(mg/L)	0.22	0.2	0.26	15
Total Hardness(mg/L)	32	34	38	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 212

Project	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Basundhara river near Kusura village as d/s water of Kulda OCP	Basundhara river near Kusura village as d/s water of Kulda OCP	Basundhara river near Kusura village as d/s water of Kulda OCP	
Dt. of sampling	18.8.2015	03.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2	2	3
Cadmium(mg/L)	0.0014	0.002	0.0016	0.01
Chlorides(mg/L)	8	8	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.4	4.2	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.31	0.33	0.36	50
Lead(mg/L)	0.018	0.016	0.012	0.1
Nitrate(mg/L)	4.87	4.45	4.38	50
pH	8.35	8.4	8.3	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	8	8	12	400
Total Dissolved Solids(mg/L)	92	58	62	1500
TSS(mg/L)	32	46	48	-
Zinc(mg/L)	0.2	0.24	0.31	15
Total Hardness(mg/L)	52	36	42	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 213

Project	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water of Gopalpur village	Pond water of Gopalpur village	Pond water at Gopalpur village	
Dt. of sampling	18.8.2015	03.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2	2.2	2.3	3
Cadmium(mg/L)	0.0017	0.0015	0.0012	0.01
Chlorides(mg/L)	6	8	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.6	4.4	4.6	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.63	0.61	0.64	50
Lead(mg/L)	0.108	0.106	0.096	0.1
Nitrate(mg/L)	2.22	2.24	2.28	50
pH	8.4	8.3	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	10	12	14	400
Total Dissolved Solids(mg/L)	86	88	92	1500
TSS(mg/L)	36	38	42	-
Zinc(mg/L)	0.27	0.29	0.27	15
Total Hardness(mg/L)	64	66	62	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 214

Project	Kulda OCP	Kulda OCP	Kulda OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water at Gaddwar village	Pond water at Gaddwar village	Pond water at Gaddwar village	
Dt. of sampling	18.8.2015	03.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.4	2.4	2.6	3
Cadmium(mg/L)	0.0024	0.0022	0.0018	0.01
Chlorides(mg/L)	14	12	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.6	4.4	4
Fluoride(mg/L)	0.09	0.08	0.06	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.54	0.53	0.56	50
Lead(mg/L)	0.018	0.016	0.02	0.1
Nitrate(mg/L)	4.43	4.38	4.32	50
pH	8.3	8.2	8.3	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	8	10	12	400
Total Dissolved Solids(mg/L)	82	80	84	1500
TSS(mg/L)	42	40	46	-
Zinc(mg/L)	0.89	0.87	0.83	15
Total Hardness(mg/L)	56	54	52	-
Manganese(mg/L)	0.08	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Project	Basundhara	Basundhara	Basundhara OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Basundhara river near Kulaparaha village as u/s water for Basundhara (West) OCP	Basundhara river near Kulaparaha village as u/s water for Basundhara (West) OCP	Basundhara river near Kulaparaha village as u/s water for Basundhara (West) OCP	
Dt. of sampling	18.8.2015	3.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.4	2.6	2.4	3
Cadmium(mg/L)	0.001	0.002	0.003	0.01
Chlorides(mg/L)	12	10	8	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.5	4.4	4.3	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.63	0.65	0.61	50
Lead(mg/L)	0.02	0.03	0.05	0.1
Nitrate(mg/L)	5.32	5.3	5.26	50
pH	8.1	8	7.96	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	9	8	10	400
Total Dissolved Solids(mg/L)	68	66	62	1500
TSS(mg/L)	36	34	36	-
Zinc(mg/L)	0.16	0.18	0.16	15
Total Hardness(mg/L)	44	42	46	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 215

Project	Basundhara	Basundhara	Basundhara OCP	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Chaturdhara river /Barhajharianallah as u/s water for Basundhara Expn OCP	Chaturdhara river as u/s water for BasundharaExpn OCP	Barhajharia nala as u/s water for BasundharaExpn OCP	
Dt. of sampling	18.8.2015	3.11.2015	2.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.4	2.8	2.5	3
Cadmium(mg/L)	0.0027	0.0025	0.0022	0.01
Chlorides(mg/L)	8	8	12	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.5	4.3	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.76	0.74	0.71	50
Lead(mg/L)	0.029	0.027	0.023	0.1
Nitrate(mg/L)	4.43	4.41	4.38	50
pH	8.2	8.1	8	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	9	8	8	400
Total Dissolved Solids(mg/L)	62	60	58	1500
TSS(mg/L)	44	42	44	-
Zinc(mg/L)	0.75	0.76	0.72	15
Total Hardness(mg/L)	40	38	42	-
Mangnese(mg/L)	0.02	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 216

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	25.4.2015	11.05.15	2.6.2015	1.7.2015	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	4	1	10
pH	8.18	8.15	8.14	8.16	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	60	64	60	200	600
Total Hardness(mg/L)	96	100	100	104	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	24	22	22	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	168	176	176	182	500	2000
Calcium(mg/L)	22.4	24	22.4	25.6	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	33	35	33	36	200	400
Nitrate(mg/L)	4.87	5.32	4.87	4.87	45	100
Fluoride(mg/L)	0.18	0.16	0.16	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	0.05	0.05	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	Nil	Nil	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 217

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	1.8.2015	5.9.15	3.10.2015	07.11.2015	Desirable	Permissible
Colour(Hazen)	3	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	4	3	4	1	10
pH	8.73	8.11	7.89	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	64	64	68	56	200	600
Total Hardness(mg/L)	104	108	112	92	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	22	24	24	20	250	1000
Residual Free chlorine(mg/L)	NIL	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	176	184	192	156	500	2000
Calcium(mg/L)	24	25.6	25.6	20.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	33	35	36	25	200	400
Nitrate(mg/L)	5.32	5.32	6.2	4.87	45	100
Fluoride(mg/L)	0.13	0.29	0.23	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation
Zinc(mg/L)	0.02	<0.02	<0.02	0.02	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 218

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	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	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	05.12.2015	9.1.2016	6.2.2016	07.03.16	Desirable	Permissible
Colour(Hazen)	3	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	3	4	4	1	10
pH	8.35	8.34	8.12	8.36	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	56	56	56	56	200	600
Total Hardness(mg/L)	92	96	96	96	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	24	20	250	1000
Residual Free chlorine(mg/L)	nil	nil	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	158	164	174	164	500	2000
Calcium(mg/L)	20.8	22.4	22.4	22.4	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	28	31	31	28	200	400
Nitrate(mg/L)	4.87	4.87	5.32	5.32	45	100
Fluoride(mg/L)	0.16	0.19	0.18	0.13	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	0.0016	0.0016	0.0016	<0.0005	0.003	No relaxation
Zinc(mg/L)	<0.01	0.03	0.03	<0.02	5	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.06	<0.01	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	***	***	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 219

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	Inlet water treatment plant anand Vihar	Inlet water treatment plant Anand Vihar	Inlet to Water treatment plant Anand Vihar	Inlet to Water treatment plant Anand Vihar	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	11.05.15	1.8.2015	07.11.2015	6.2.2016	Desirable	Permissible
Colour(Hazen)	7	8	2	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	12	13	4	12	1	10
pH	7.51	7.53	7.59	7.48	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	48	48	40	44	200	600
Total Hardness(mg/L)	88	88	72	84	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	20	16	18	250	1000
Residual Free chlorine(mg/L)	nil	NIL	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	148	154	124	142	500	2000
Calcium(mg/L)	20.8	20.8	16	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.94	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	27	29	23	28	200	400
Nitrate(mg/L)	3.54	4.43	4.43	4.43	45	100
Fluoride(mg/L)	0.16	0.13	0.14	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.05	0.02	0.02	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/ 100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.001	0.002

Table 220

Project	MCL HQ	MCL HQ	MCL HQ	MCL HQ		
Monitoring Station	Outlet of water treatment plant Anand Vihar	Outlet of water treatment plant Anand Vihar	Outlet to Water treatment plant Anand Vihar	outlet of water treatment plant (anand vihar)	Indian Drinking Standards (IS-10500):2012	
Dt. of sampling	11.05.15	1.8.2015	07.11.2015	6.2.2016	Desirable	Permissible
Colour(Hazen)	2	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	4	1	10
pH	7.67	7.63	7.83	8.34	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	44	44	60	52	200	600
Total Hardness(mg/L)	84	76	108	84	200	600
Iron(mg/L)		<0.06	<0.06	<0.06	0.3	1
Chloride(mg/L)	18	16	24	18	250	1000
Residual Free chlorine(mg/L)	0.14	0.11	nil	nil	0.2	—
Total Dissolve Solid(mg/L)	144	132	184	146	500	2000
Calcium(mg/L)	19.2	17.6	25.6	19.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	<0.02	<0.02	<0.02	0.1	0.3
Sulphate(mg/L)	26	25	35	28	200	400
Nitrate(mg/L)	4.43	4.43	4.87	4.87	45	100
Fluoride(mg/L)	0.14	0.12	0.17	0.15	1	1.5
Selenium(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	No relaxation
Arsenic(mg/L)	<0.002	<0.005	<0.005	<0.002	0.01	No relaxation
Lead(mg/L)	<0.005	<0.0005	<0.0005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.005	0.003	No relaxation
Zinc(mg/L)	0.07	0.02	0.03	0.03	5	15
Hexavalent Chromium(mg/L)	<0.06	<0.06	<0.06	<0.06	0.05	No relaxation
Boron(mg/L)	<0.20	<0.20	<0.20	<0.20	0.5	5
Faecal col.as MPN/100ml	Nil	Nil	***	***	Nil	Nil
Phenolics(mg/L)	<0.001					

Table 221

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Ib river Charbhati village as u/s water for Ib valley coal field	Ib river Charbhati village as u/s water for Ib valley coal field	Ib river Charbhati village as u/s water for Ib valley coal field	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	2.4	2.6	3
Cadmium(mg/L)	0.0014	0.0012	0.0014	0.01
Chlorides(mg/L)	14	12	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.4	4.2	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.72	0.7	0.68	50
Lead(mg/L)	0.039	0.041	0.038	0.1
Nitrate(mg/L)	3.99	3.88	3.92	50
pH	8.15	8.2	8.1	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	4	6	8	400
Total Dissolved Solids(mg/L)	62	64	68	1500
TSS(mg/L)	60	62	64	-
Zinc(mg/L)	0.3	0.32	0.34	15
Total Hardness(mg/L)	40	42	40	-
Manganese(mg/L)	0.11	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 222

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Basundhara river near Degan village before confluence of Ib river	Basundhara river near Degan village before confluence of Ib river	Basundhara river near Degan village before confluence to Ib river	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	2.4	2.2	3
Cadmium(mg/L)	0.0015	0.0014	0.0012	0.01
Chlorides(mg/L)	16	14	12	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.6	4.4	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.94	0.92	0.86	50
Lead(mg/L)	0.017	0.016	0.014	0.1
Nitrate(mg/L)	4.43	4.25	4.16	50
pH	8.23	8.26	8.18	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	4	6	10	400
Total Dissolved Solids(mg/L)	96	94	92	1500
TSS(mg/L)	50	54	56	-
Zinc(mg/L)	0.33	0.34	0.38	15
Total Hardness(mg/L)	72	74	76	-
Mangnese(mg/L)	0.29	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 223

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	lb river bridge of NH 200 at Gondghora village as u/s of Orient Area	lb river bridge of NH 200 at Gondghora village as u/s of Orient Area	lb river bridge of NH 200 at Gondghora village as u/s of Orient Area	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.5	3
Cadmium(mg/L)	0.0007	0.0009	0.0008	0.01
Chlorides(mg/L)	8	8	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.4	4.6	4
Fluoride(mg/L)	<0.02	<0.02	0.02	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	1.08	1.09	1.05	50
Lead(mg/L)	0.019	0.021	0.023	0.1
Nitrate(mg/L)	2.66	2.68	2.64	50
pH	8.35	8.3	8.25	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	5	6	8	400
Total Dissolved Solids(mg/L)	78	80	78	1500
TSS(mg/L)	120	124	121	-
Zinc(mg/L)	0.09	0.12	0.14	15
Total Hardness(mg/L)	48	46	48	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 224

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Vhedan river before confluence point with Ib River	Vhedan river before confluence point with Ib River	Vhedan river before confluence point with Ib River	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.8	2.6	3
Cadmium(mg/L)	0.0023	0.0025	0.0021	0.01
Chlorides(mg/L)	8	10	8	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.2	4.6	4.3	4
Fluoride(mg/L)	0.07	0.08	0.06	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	1.01	1.03	0.98	50
Lead(mg/L)	0.016	0.018	0.016	0.1
Nitrate(mg/L)	3.99	3.97	3.94	50
pH	8.12	8.15	8	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	4	5	6	400
Total Dissolved Solids(mg/L)	76	78	74	1500
TSS(mg/L)	126	128	124	-
Zinc(mg/L)	0.15	0.17	0.18	15
Total Hardness(mg/L)	48	46	46	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 225

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Ib river near Kotarbaga village at bridge point	Ib river near Kotarbaga village at bridge point	Ib river near Kotarbaga village at bridge point	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.4	2.6	2.8	3
Cadmium(mg/L)	0.0029	0.0027	0.0023	0.01
Chlorides(mg/L)	18	16	14	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.4	4.3	4.4	4
Fluoride(mg/L)	0.13	0.14	0.16	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.94	0.92	0.9	50
Lead(mg/L)	<0.005	BDL	0.012	0.1
Nitrate(mg/L)	5.32	5.3	5.28	50
pH	8.58	8.48	8.4	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	5	4	6	400
Total Dissolved Solids(mg/L)	62	64	66	1500
TSS(mg/L)	58	56	54	-
Zinc(mg/L)	0.22	0.2	0.22	15
Total Hardness(mg/L)	36	38	42	-
Mangnese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 226

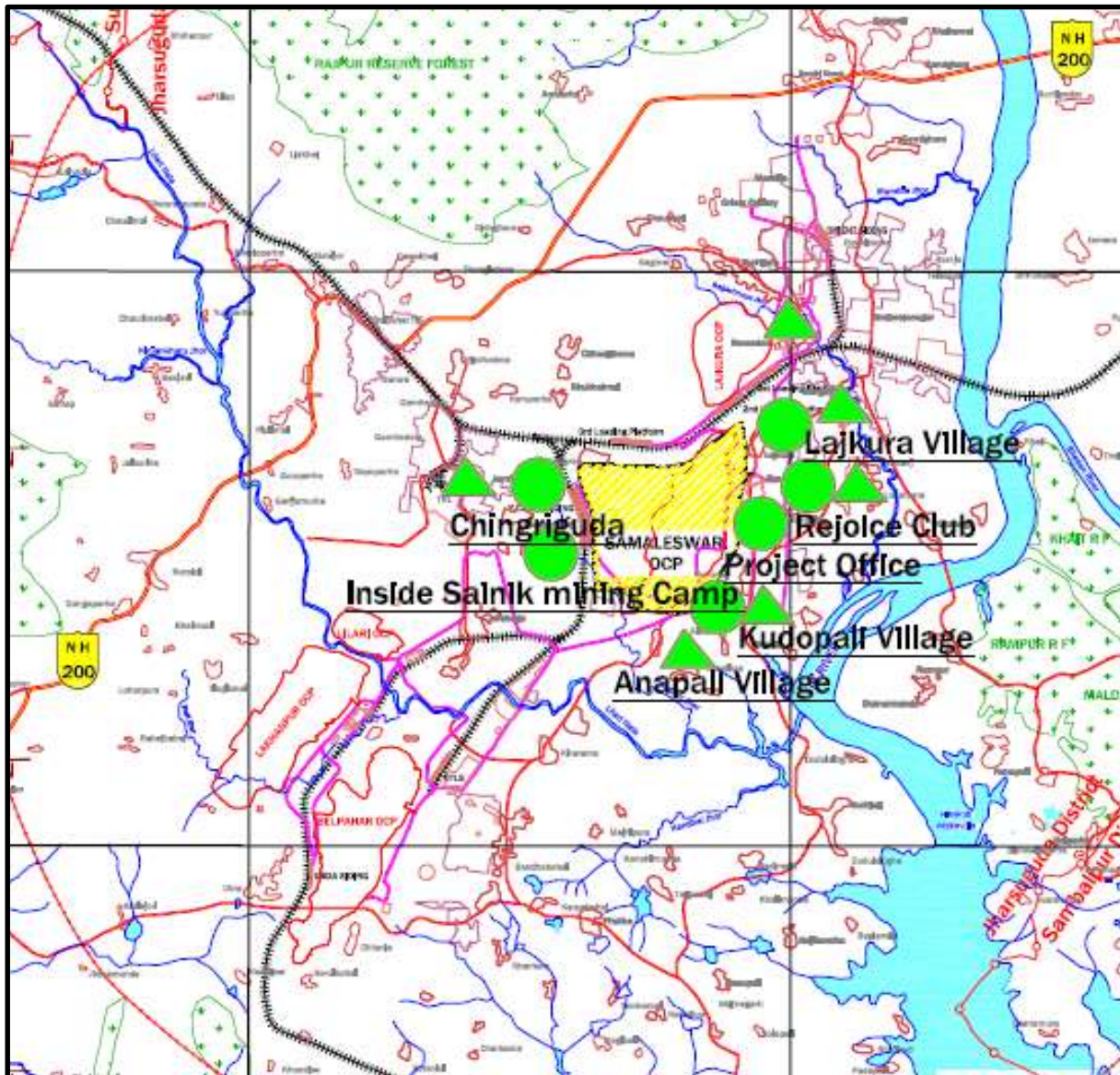
Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Bagachoppajhor Ganga pur village as u/s for Rampur Colliary	Bagachoppajhor Ganga pur village as u/s for Rampur Colliary	BagachoppajhorGan gapur village as u/s for Rampur Colliary	
Dt. of sampling	24.8.2015	9.11.2016	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.6	2.4	2.6	3
Cadmium(mg/L)	0.0021	0.0022	0.002	0.01
Chlorides(mg/L)	16	18	16	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.3	4.4	4.6	4
Fluoride(mg/L)	<0.02	<0.02	0.13	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	0.9	0.8	0.7	50
Lead(mg/L)	0.057	0.55	0.58	0.1
Nitrate(mg/L)	5.32	5.24	5.22	50
pH	8.24	8.28	8.15	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	4	5	4	400
Total Dissolved Solids(mg/L)	78	80	82	1500
TSS(mg/L)	98	96	98	-
Zinc(mg/L)	0.01	0.02	0.04	15
Total Hardness(mg/L)	56	58	62	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

Table 227

Project	Orient	Orient	Orient	IS:2296-1982 Tolerance for Inland surface water (Class C)
Monitoring Station	Pond water at Burhi Jam village	Pond water at Burhi Jam village	Pond water at Burhijam village	
Dt. of sampling	24.8.2015	9.11.2015	3.2.2016	
Arsenic(mg/L)	<0.002	<0.005	<0.005	0.2
BOD(mg/L)	2.8	2.6	2.4	3
Cadmium(mg/L)	0.0007	0.0009	0.0006	0.01
Chlorides(mg/L)	10	12	10	600
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Dissolved Oxygen(mg/L)	4.2	4.3	4.8	4
Fluoride(mg/L)	0.26	0.024	0.026	1.5
Hexavalent Chromium(mg/L)	<0.01	<0.06	<0.01	0.05
Iron(mg/L)	<0.06	<0.06	<0.06	50
Lead(mg/L)	<0.005	<0.0005	<0.0005	0.1
Nitrate(mg/L)	4.43	4.36	4.38	50
pH	8.2	8.3	8.23	6.5-8.5
Phenolic Compound(mg/L)	<0.002	<0.001	<0.001	0.005
Selenium(mg/L)	<0.002	<0.002	<0.002	0.05
Sulphate(mg/L)	5	4	6	400
Total Dissolved Solids(mg/L)	66	68	70	1500
TSS(mg/L)	116	120	124	-
Zinc(mg/L)	0.05	0.06	0.08	15
Total Hardness(mg/L)	52	54	56	-
Manganese(mg/L)	BDL	<0.02	<0.02	
Nickel(mg/L)	BDL	<0.10	<0.10	

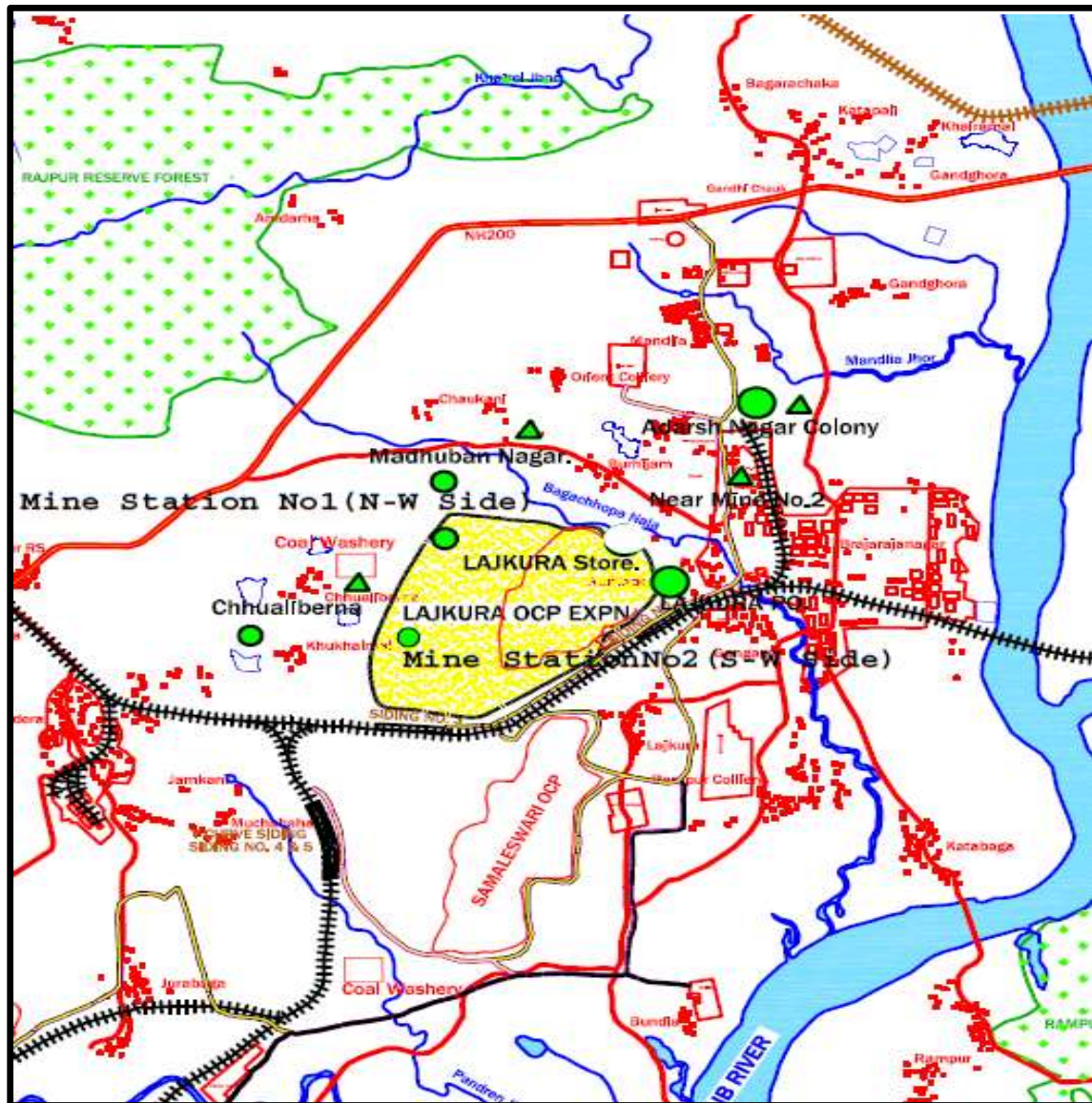
LOCATION MAP OF MONITORING STATIONS

Location Map of Monitoring Stations for Samleswari OCP



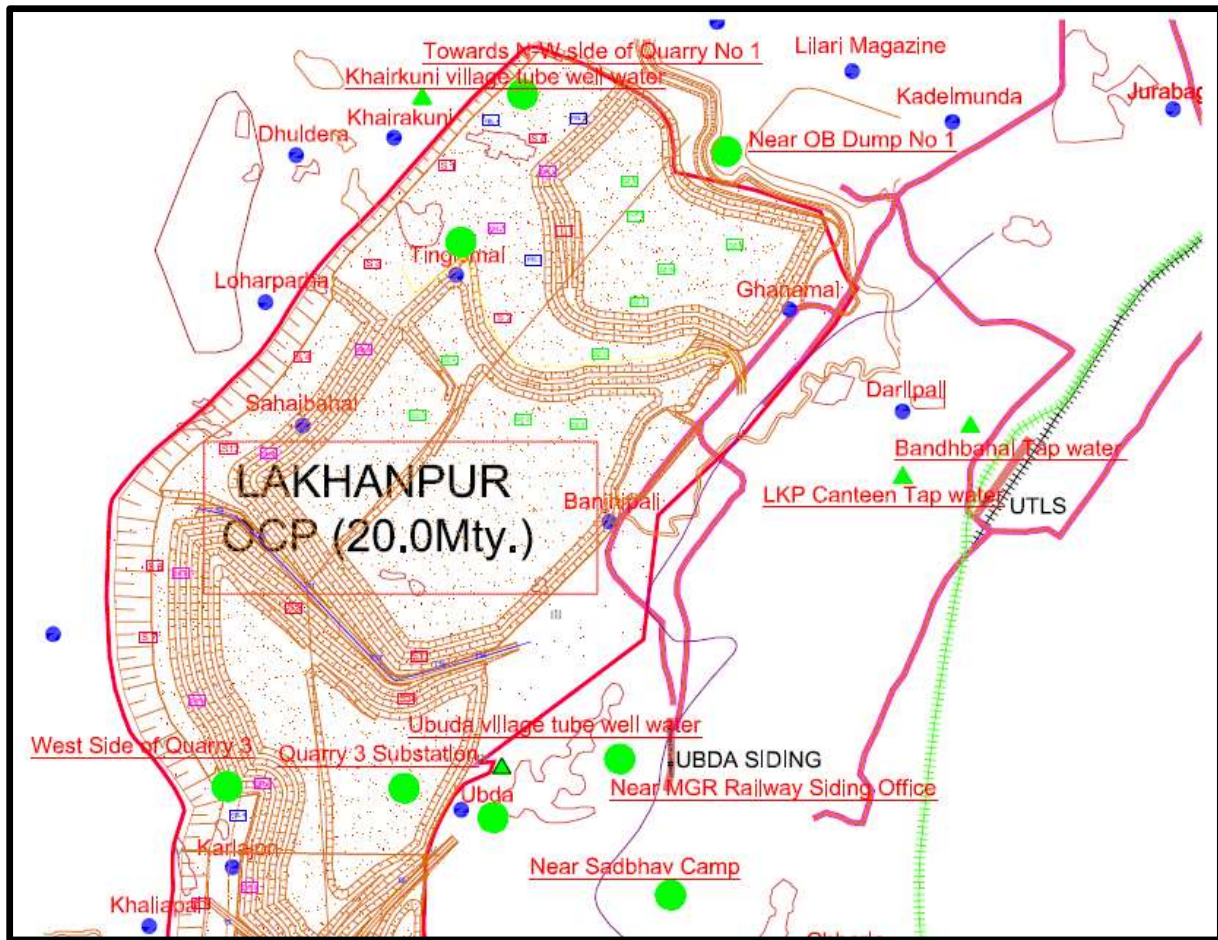
-  Air & Noise Monitoring Station
-  Drinking water sampling Station

Location Map of Monitoring Stations for Lajkura



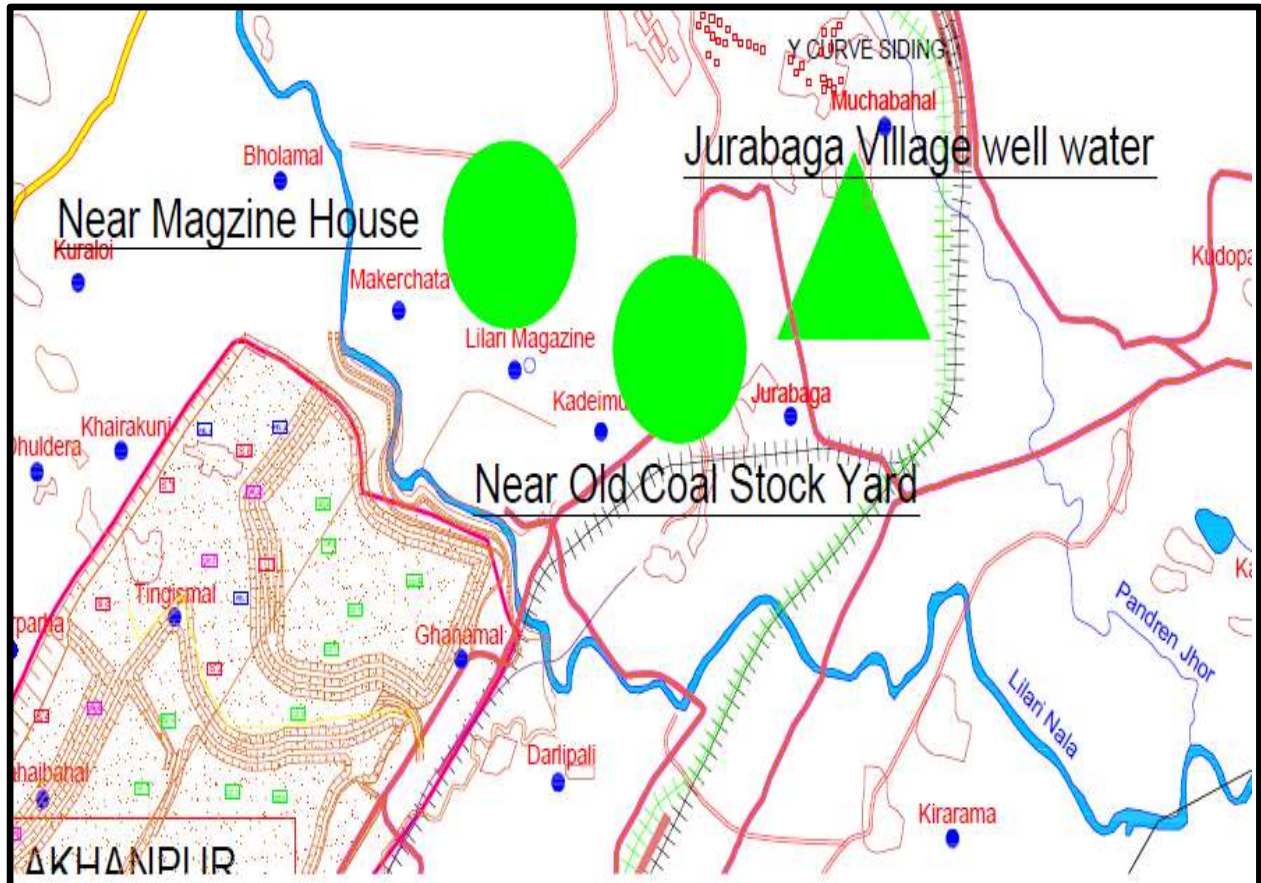
-  **Air & Noise Monitoring Station**
-  **Drinking water sampling Station**

Location Map of Monitoring Stations for Lakhanpur



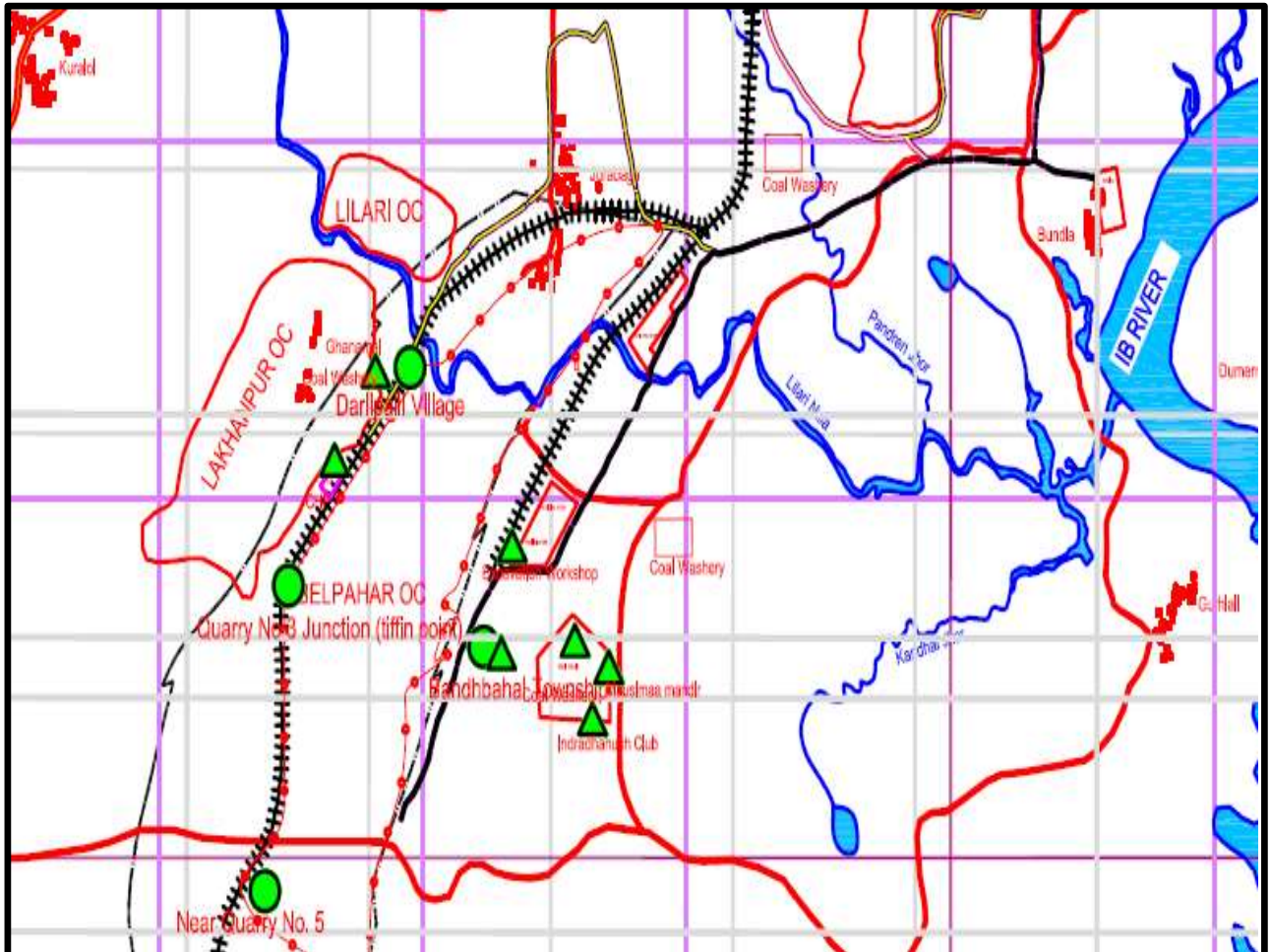
- Air & Noise Monitoring Station
- ▲ Drinking water sampling Station

Location Map of Monitoring Stations for Lilari



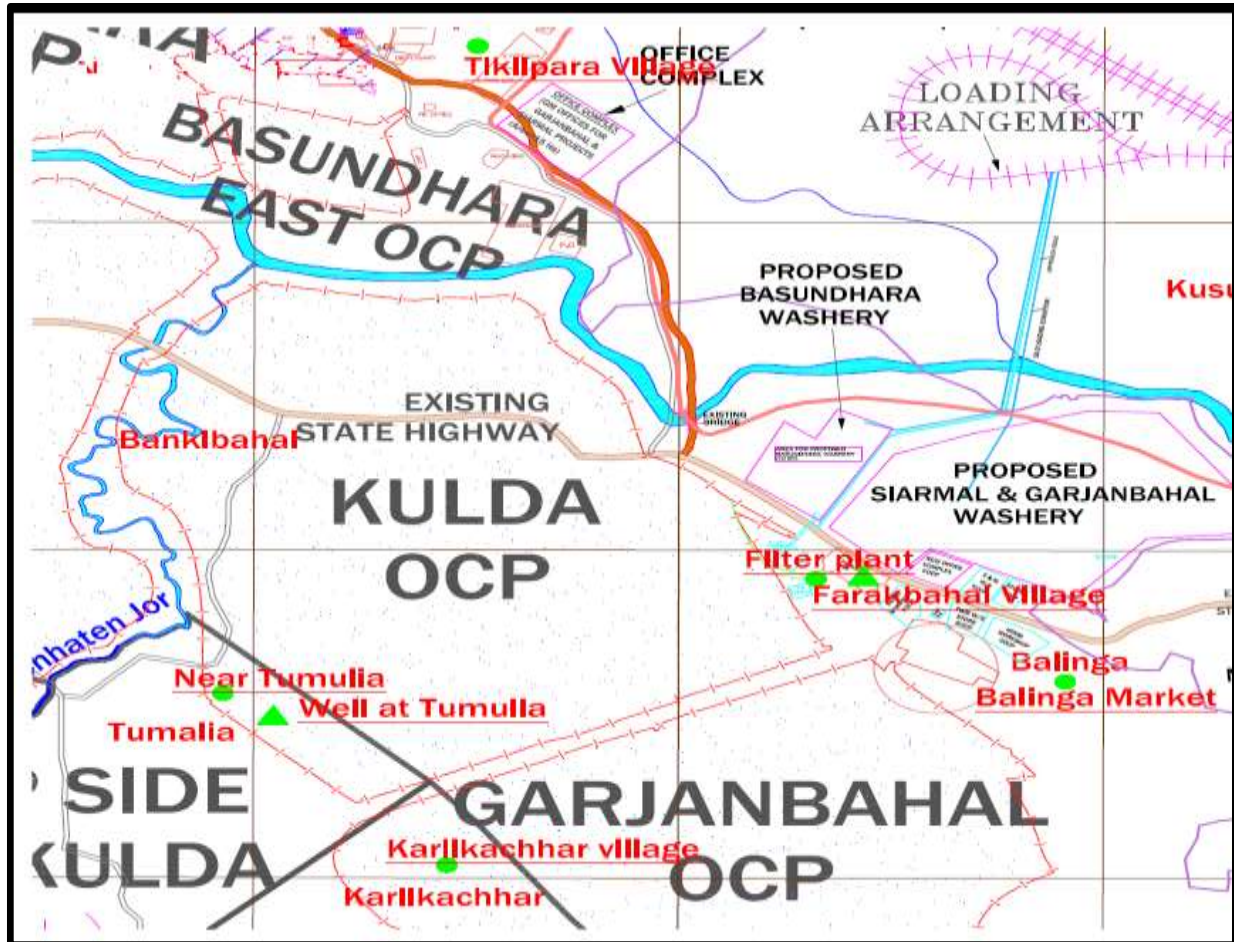
-  Air & Noise Monitoring Station
-  Drinking water sampling Station

Location Map of Monitoring Stations for Belpahar



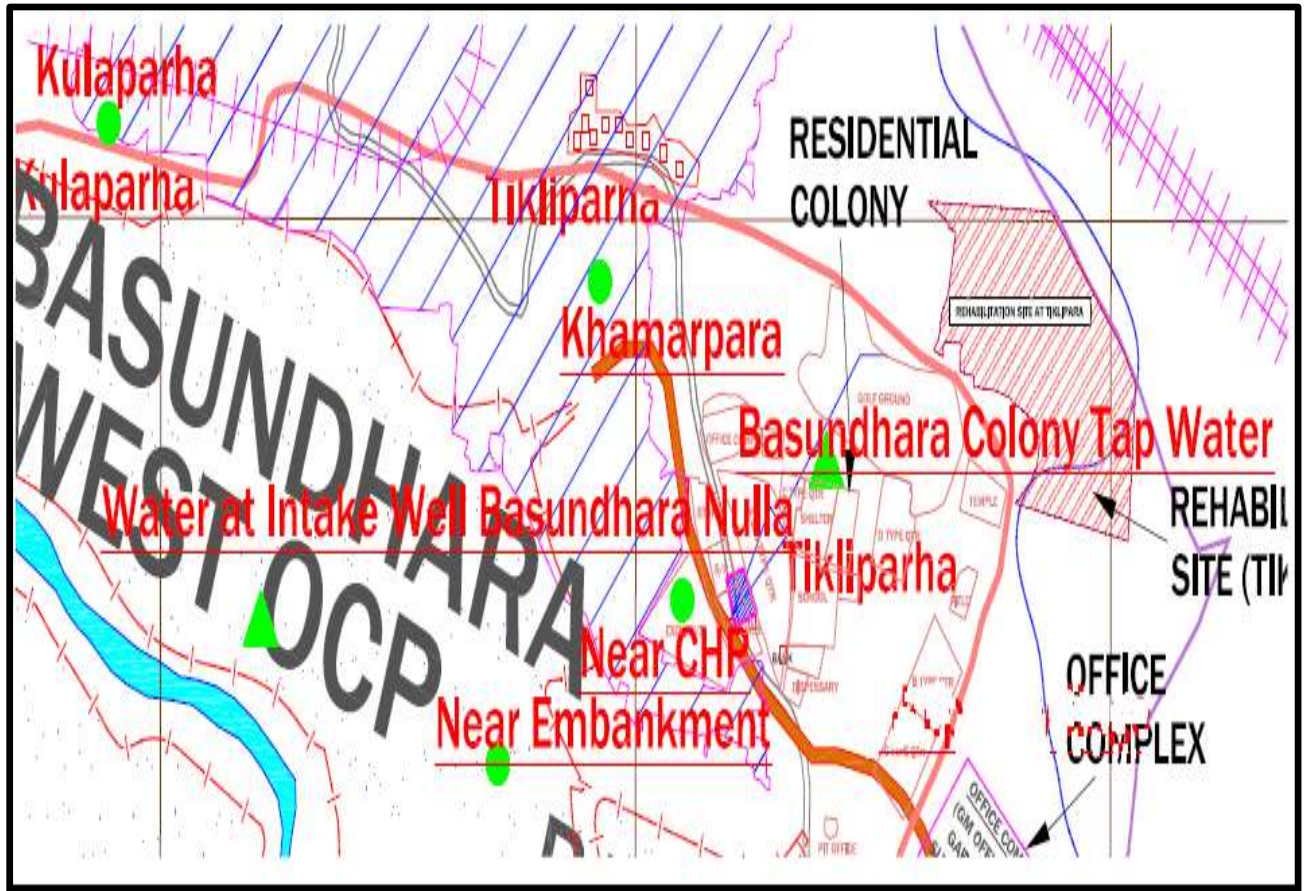
-  **Air & Noise Monitoring Station**
 **Drinking water sampling Station**

Location Map of Monitoring Stations for Kulda



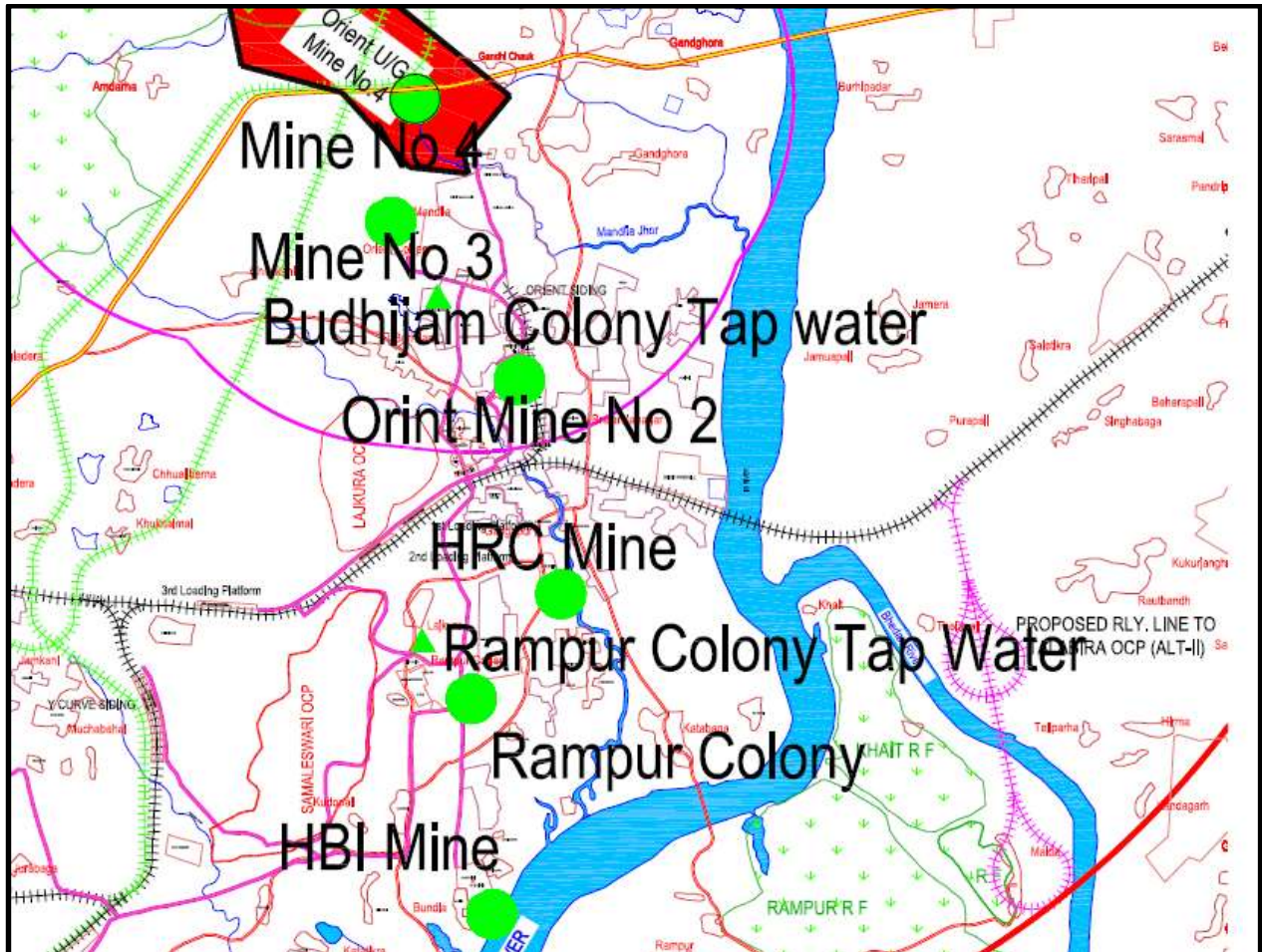
-  Air & Noise Monitoring Station
-  Drinking water sampling Station

Location Map of Monitoring Stations for Basundhara



- Air & Noise Monitoring Station
- ▲ Drinking water sampling Station

Location Map of Monitoring Stations for Orient



Air & Noise Monitoring

Drinking water sampling Station