

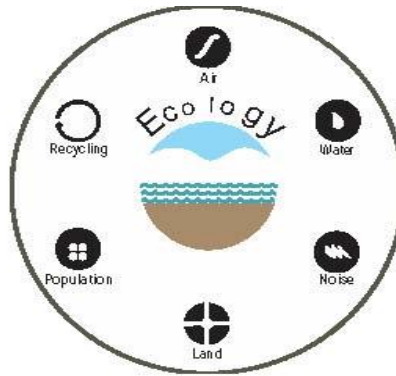
**Annual Environmental Monitoring Report
of
IB Valley Coalfields
For
2018-19**



Mahanadi Coalfields Limited

(A Subsidiary of Coal India Ltd.)

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(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°30' & 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 1000 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 Himgir 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.

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 leasehold 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 southern 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 15 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-40.0 Mty

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 to 7.0 MTY after being sanctioned in March 2009.

Kulda OCP (10 Mty) and there after Kulda expansion OCP of (15 mty) was sanctioned in January 2015 and June 2014 respectively Kulda OCP is now producing 12.80 Mty Garjanbahal OCP (10 Mty) has been sanctioned in November 2014 by CIL, it started coal production (2.81 MTY) in 2018-19. PR of Basundhara west extension OCP (7.0 Mty) was formulated and sanctioned in May 2014 in the properties of Chaturdhara 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°14'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 Odisha 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 :01

List of Air Quality Monitoring Stations

Sl. No.	Area	Project/OCP/UG	Air Monitoring Station
1.	Ib Valley	Samleswari	Roof of Project Office, SOCP
2.			Near Re-Joice Club in Hill Top Colony
3.			Near Kudopali
4.			Lajkura Village
5.			Jamkani Village
6.		Lajkura	Near Project Office
7.			Near South Coal Stock
8.			Near Adarsh Nagar Colony\$
9.			Near Baghmara Nala
10.	Lakhanpur	Lilari	South East of Mine
11.		Lakhanpur	South of Quarry 5
12.			Near Quarry 3
13.			West of Quarry 1
14.			Near East of Quarry 1
15.		Belpahar	South West of Mine
16.			Near Quarry 5
17.			Near PO Office
18.			Near Workshop
19.	Basundhara		Kulda
20.		A2/KUL 2-External CT Road	
21.		A3/KUL3-West of Working Face/Near Tumulia	
22.		A4/KUL 4-South of Working Face/Near Karlikachhar	
23.		A5/KUL 5-North of CHP/Kushra	
24.		Basundhara	A1-Near Internal Dump & CT Road of Basundhara (W) OCP/Siarmal
25.			A2-Near Internal Dump & CT Road of Basundhara (W) OCP/Gopalpur
26.			A3-Near Ratansara Village
27.			A4-Near Sardega Railway Siding
28.			A5-Near Coal Stock of Basundhara (W) OCP
29.			A6-Near Tiklipara Village
30.	Orient	Orient	Orient Mine No.2
31.			Orient Mine No.3
32.			Orient Mine No.4
33.			HBI Mine
34.			Bundia Colony Pump House
35.			Rampur Officers Guest House

Table :02
List of Noise Level Monitoring Stations

Sl. No.	Area	OCP/Project/UG	Name of the station		
1.	Ib Valley	Samaleswari	Roof of Project Office, SOCP		
2.			Near Re-Joice Club in Hill Top Colony		
3.			Near Kudopali		
4.			Lajkura Village		
5.			Jamkani Village		
6.		Lajkura	Near Project office		
7.			Near Adarsh nagar colony \$		
8.			Chhualiberna		
9.	Lakhanpur	Lilari	South East of Mine		
10.		Lakhanpur	South of Quarry 5		
11.			Near Quarry 3		
12.			West of Quarry 1		
13.			Near East of Quarry 1		
14.			Belpahar	South West of Mine	
15.		Near Quarry 5			
16.		Near PO Office			
17.		Near Workshop			
18.		Basundhara		Kulda	N1-Near Farakbhal Village
19.	N2-Near Sardega Railway Siding				
20.	Basundhara (W)		NL1-Near Internal Dump & CT Road of Basundhara (W) OCP/Siarmal		
21.			NL2-Near Tiklipara Village		
22.			NL3-Near Internal Dump & CT Road of Basundhara (W) OCP/Gopalpur		
23.			NL4-Near Sardega Railway Siding # reporting		
24.			Orient	Orient	Orient Mine no.2
25.					Near Adarsh nagar colony
26.	Orient Mine no. 3				
27.	Orient Mine no. 4				
28.	HBI Mine				
29.	Bundia Colony Pump House				
30.	Rampur Officers Guest House				

Table :03
List of Effluent (04 Parameter) Quality Monitoring Stations

Sl. No.	Area	OCP	NAME OF STATIONS
1.	IB-valley	Samaleswari	Outlet of Sedimentation Pond
2.			O&G Trap Outlet
3.		Lajkura	Inlet of Oil & Grease Trap
4.			Outlet of Oil & Grease Trap
5.			u/s of Baghmara Nala at Discharge Point
6.			d/s of Baghmara Nala at Discharge Point
7.			Inlet of MDTP
8.			Outlet of MDTP
9.			Treated Water from STP
10.	Lakhanpur	Liliari	Mine Sump Water
11.		Lakhanpur	Outlet of Sedimentation Pond
12.			O & G Trap Outlet
13.			Mine Sump Water
14.		Belpahar	Outlet of ETP
15.			Mine Sump Water
16.			Clear water Tank of Sedimentation Tank
17.		Basundhara	Kulda
18.	Outlet of Settling Pond		
19.	Basundhara		Outlet of Settling Pond at Excavation Workshop, B(W) OCP
20.			O & G Trap Outlet at Excavation Workshop, B(W) OCP
21.			Basundhara (E) OCP's Sump
22.	Orient	Orient	Mine sump of Mine no.2
23.			Mine sump of Mine no.3
24.			Mine sump of Mine no.4
25.			Mine sump of HBM Mine

Table :04
List of Effluent (22 Parameter) Quality Monitoring Stations

Sl. No.	Area	OCP	NAME OF STATIONS
1.	IB-valley	Samaleswari	Outlet from sedimentation pond(MDTP)
2.		Lajkura	Outlet of MDTP
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.			Outlet to settling pond
8.		Basundhara	Outlet of Settling Pond at Excavation Workshop, B(W) OCP
9.			Outlet to Settling Pond at Kanika Siding
10.	Orient	Orient	Mine sump of Mine-2
11.			Mine sump of Mine-3
12.			Mine sump of Mine-4
13.			Mine sump of HBM

Table :05

List of Effluent (3 Parameter) Quality Monitoring Stations

Sl. No.	Area	OCP	NAME OF STATIONS
1.	IB-valley	Samaleswari	STP outlet
2.		Lajkura	Treated Water from STP

Table :06

List of Effluent (pH) Quality Monitoring Stations

Sl. No.	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	Mine sump water
2		Lajkura	Mine sump water

Table :07

List of Effluent (TSS) Quality Monitoring Stations

Sl. No.	Area	OCP	NAME OF STATIONS
1	IB-valley	Samaleswari	Mine sump water
2		Lajkura	Mine sump water

Table :08

List of Effluent (6 Parameter) Quality Monitoring Stations

Sl. No.	Area	NAME OF STATIONS
1.	IB-valley	Central Hospital

Table :09
List of Drinking Water Quality Monitoring Stations

SL NO	OCP / UG	NAME OF THE STATION
1.	Samaleswari	Well Water from Chingriguda (Yearly Once)
2.		Well Water from Kudopali (Yearly Once)
3.		Well Water from Lajkura (Yearly Once)
4.		Well Water Ainlapali (Yearly Once)
5.		Tap Water from Samleswari OCP Colony (Monthly)
6.		Water from IWSS, IB Valley Area (Half-Yearly)
7.	Lajkura	Madhuban Nagar Well Water (Yearly Once)
8.		Adarsh Nagar Colony Well Water (Yearly Once)
9.		Chhualiberna Village Well Water (Yearly Once)
10.		Adarsh Nagar Tap Water (Monthly)
11.	Liliari	Jurabaga Village Well Water (Monthly)
12.	Lakhanpur	Khairkuni Village Tubewell Water (Monthly)
13.		LKP Canteen Tap Water
14.	Belpahar	Belphar Colony Tap Water (Monthly)
15.		Belphar Integrated Township-Indradhanush Club Outlet (Monthly)
16.		CHP Tap Water(Monthly)
17.		Darlipali Village Well Water (Yearly Once)
18.		Intake water of IWSS.Half yearly(Half-yearly)
19.	Kulda	Well at Tumulia (Monthly)
20.		Filter Plant (Monthly)
21.	Basundhara	Basundhra Colony Tap Water (Monthly)
22.	Orient	Tap Water at Budhijaam Colony (Monthly)
23.		Mine no 1&2 Filter Plant (Monthly)
24.		Mine no 3 Filter Plant (Monthly)
25.		Tap Water at Rampur Colony (Monthly)
26.		HBI Filter Plant (Monthly)
27.	MCL(HQ)	Tap Water at DAV School (Anand Vihar) (Monthly)
28.		Tap Water at Cooperate Office (Jagruthi Vihar) (Monthly)
29.		Inlet to Water Treatment Plant (Anand Vihar) (Monthly)
30.		Outlet of Water Treatment Plant (Anand Vihar) (Monthly)

Table :10
List of Well Water Level Stations

Sl. NO	Area	OCP	Name of station
1	Ib valley	Samleswari	Well of Chingriguda
2			Well of Kudopali
3			Well of Lajkura
4			Well of Ainlapali
5		Lajkura	Madhuban Nagar Well Water
6			Adarsh Nagar Colony Well Water
7			Chhualiberna Village Well Water
8		Lakhanpur	Khairkuni Village Well Water
9		Belpahar	Darlipali Village Well Water
10	Basundhara	Kulda	Well of Tumulia
11			Well at Kulda
12		Basundhara	Sardega village well
13			Tiklipada village well
14			Bankibhal Village Well

Table :11
List of Surface Water Monitoring Stations

SL.NO	OCP / UG	NAME OF THE STATION
1	Samaleswari	Pandren Nallah Near Muchabahal
2		Pandren Nallah Before Confluence Point with Lilari Nallah
3	Lakhanpur	Pulijhor Stream Near Tingismal Village as u/s for Lakhanpur OCP
4		Pulijhor stream Near Darlipalil Village before Confluence to Lilari Nallah as d/s Water of Lakhanpur OCP
5		Lilari Nallah at Bridge Point Before Joining Ib River Near Dudolsingha Village
6		Pond water at Samra Village
7	Belpahar	Lilari Nallah Near Gouraparha Village at Bridge Point of NH 200 as u/s Water for Lakhanpur OCP and Belpahar OCP
8		Lilari Nallah Near Kirarama Village as d/s of Lakhanpur OCP and Belpahar OCP
9		IB River Near Dumermunda village as d/s of the Coalfield Before Joining to Hirakud Reservoir
10		Hirakud Reservoir for Impact Assessment of the Coalfield
11	Kulda	Basundhara river near Kulaparha village just after meeting point of Basundhara & Chaturdhara river as u/s of Siarmal OCP
12		Basundhara river near Tiklipara village as d/s water of Siarmal OCP & u/s water of Kulda OCP
16	Orient	Bhedan River Before Confluence Point with IB River
17		Pond Water at Burhijam Village
18		IB River Near Charbhati Village as u/s water for Ib Valley Coalfield
19		Basundhara River Near Degan Village Before Confluence as u/s of IB River
20		IB River Bridge of NH200 at Gondghora Village as u/s of Orient Area
21		Bagachoppa Jhor Gangapur Village as u/s for Rampur Colliery
22		IB River near Kotarbaga Village at Bridge Point

Table :12
List of Piezometer Monitoring Stations

Sl. No.	Area	OCP	Name of station
1.	Ib valley	Samleswari	Piezometer No MIP 04 .
2.		Lajkura	Piezometer No MIP 02 .
3.	Lakhanpur	Lilari	Piezometer No MIP 06 .
4.		Lakhanpur	Piezometer No MIP 09 .
5.			Piezometer No MIP 10 .
6.		Belpahar	Piezometer No MIP 07 .
7.			Piezometer No MIP 08 .
8.	Basundhara	Kulda	Piezometer No MIP 12 .
9.			Piezometer No MIP 14 .
10.			Piezometer No MIP 01 .
11.			Piezometer No MIP 11 .
12.		Basundhara	Piezometer No MIP 15 .
13.			Piezometer No MIP 16 .
14.			Piezometer No MIP 13 .
15.		Piezometer No MIP 17 .	
16.	Orient	Orient	Piezometer No MIP 03 .
17.			Piezometer No MIP 05 .

FREQUENCY OF MONITORING

Table :7
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	Fortnightly/Monthly/Quarterly/Half-yearly
7.	Ground Water Level Monitoring	Quarterly
8.	Surface Water (21 Parameter) Quality Monitoring	Quarterly

METHODOLOGY AND INSTRUMENTS USED

Table :8

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 :9

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 :16
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 Comparison	-
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- PHOTOLAB 6100
10.	Nitrate nitrogen	APHA 22nd Edition	Microprocessor based spectrophotometer- PHOTOLAB 6100
11.	Ammonical Nitrogen	IS 3025 (PART 34) : 1988,	Microprocessor based spectrophotometer- PHOTOLAB 6100
12.	Total kjeldhal Nitrogen	IS 3025 (PART 34) : 1988	Microprocessor based spectrophotometer- PHOTOLAB 6100
13.	Total residual chlorine	IS 3025 (PART 26) : 1986	Microprocessor based spectrophotometer- PHOTOLAB 6100
14.	Calcium	IS 3025 (PART 40) : 1991,EDTA Titrimetric Method	Burette, Pipette
15.	Chloride	IS 3025 (PART 32) : 1988,	Microprocessor based spectrophotometer- PHOTOLAB 6100
16.	Fluoride	APHA 22nd Edition , IS 3025(Pat 60):SPANDS	Microprocessor based spectrophotometer- PHOTOLAB 6100
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- PHOTOLAB 6100
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- PHOTOLAB 6100
22.	Sulfide	APHA 22nd Edition , IS 3025(Part 29):1986	Microprocessor based spectrophotometer- PHOTOLAB 6100
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	PHOTOLAB 6100
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)

Sl. No.	Parameters	Method	Instruments
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	PHOTOLAB 6100
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 antipyrene Method	-

TABLES FOR AIR QUALITY DATA

Table :17

Project: Samleswari OCP

Monitoring Station: Near Kudopali Village

Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	
10-Apr-18	41	72	1.7	6.28	254	
24-Apr-18	42	181	3.32	14	505	
9-May-18	36	144	2.09	<6	193	
23-May-18	26	61	2.01	<6	132	
8-Jun-18	34	67	2.72	<6	166	
25-Jun-18	28	64	1.45	7.08	111	
10-Jul-18	31	74	2.05	8.33	118	
23-Jul-18	24	73	2.09	<6	121	
9-Aug-18	34	73	3.09	15.51	95	
23-Aug-18	22	88	2.92	25.59	115	
7-Sep-18	17	61	4.75	27.43	82	
25-Sep-18	89	180	5.42	<6	251	
10-Oct-18	16	37	2.98	<6	53	
25-Oct-18	13	85	3.3	13.75	153	
8-Nov-18	35	142	5.9	20.13	235	
22-Nov-18	41	589	1.68	7.39	820	
8-Dec-18	48	134	10.21	13.46	155	
25-Dec-18	57	235	9.09	22.1	283	
14-Jan-19	72	123	13.76	14.7	185	
28-Jan-19	15	182	21.64	69.27	210	
8-Feb-19	34	208	15.66	32.7	360	
21-Feb-19	188	387	25.23	29.34	465	
7-Mar-19	16	91	12.24	26.52	171	
21-Mar-19	37	131	12.79	32.13	203	
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	188	589	25.23	69.27	820	
Minimum	13	37	1	6	53	
Average	41.50	145.08	7.00	21.43	226.50	
95 Percentile	86.45	364.20	20.74	38.19	499.00	
98 Percentile	142.46	496.08	23.58	56.84	675.10	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table 18
Project: Samleswari OCP
Monitoring Station: Jamkani Village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
11-Apr-18	62	154	2.49	<6	243	
24-Apr-18	119	344	1.72	47	715	
9-May-18	52	122	2.26	<6	153	
24-May-18	10	36	5.57	<6	62	
8-Jun-18	46	97	4.9	<6	124	
25-Jun-18	19	94	0.69	6.68	130	
10-Jul-18	18	49	1.19	8.34	70	
23-Jul-18	21	74	3.81	<6	126	
9-Aug-18	18	72	2.02	7.07	111	
23-Aug-18	28	116	2.35	19.22	143	
7-Sep-18	19	65	3.43	<6	85	
25-Sep-18	23	151	5.31	8.83	237	
10-Oct-18	55	378	4.54	<6	619	
25-Oct-18	29	96	2.94	18.99	186	
8-Nov-18	18	132	4.47	33.14	238	
22-Nov-18	92	479	3	13.79	688	
8-Dec-18	42	355	12.58	15.86	380	
25-Dec-18	28	223	11.41	21.45	323	
14-Jan-19	73	202	43.84	15.63	524	
28-Jan-19	138	323	27.36	52.53	449	
8-Feb-19	57	279	15.15	58.74	473	
21-Feb-19	173	366	27.27	18.43	523	
7-Mar-19	71	247	11.93	29.42	355	
21-Mar-19	78	112	13.17	37.73	188	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m ³
Maximum	173	479	43.84	58.74	715	
Minimum	10	36	1	7	62	
Average	53.71	190.25	8.89	24.29	297.71	
95 Percentile	135.15	376.20	27.35	53.77	677.65	
98 Percentile	156.90	432.54	36.26	56.75	702.58	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table 19
Project: Samleswari OCP
Monitoring Station: Lajkura Village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
10-Apr-18	37	383	2.53	-	722	
24-Apr-18	77	546	1.13	<6	1043	
9-May-18	19	100	1.63	<6	157	
23-May-18	10	115	4.58	<6	295	
8-Jun-18	32	86	1.67	7.36	148	
25-Jun-18	20	97	0.9	<6	237	
10-Jul-18	13	53	1.65	<6	86	
23-Jul-18	33	74	3.01	<6	104	
9-Aug-18	14	69	1.8	19.37	98	
23-Aug-18	22	82	1.9	29.63	133	
7-Sep-18	23	125	9.46	7.65	151	
25-Sep-18	34	105	4.26	<6	159	
10-Oct-18	24	275	4.4	<6	469	
25-Oct-18	14	70	2.47	13.92	131	
8-Nov-18	74	108	4.53	19.03	192	
22-Nov-18	105	704	3.24	18.66	860	
8-Dec-18	75	320	12.34	11.86	390	
25-Dec-18	137	393	12.26	19.84	429	
14-Jan-19	21	196	10.84	15.36	282	
28-Jan-19	46	281	27.67	78.81	507	
8-Feb-19	89	116	21.27	21.27	267	
21-Feb-19	36	186	20.77	21.79	374	
7-Mar-19	25	120	12.57	41.88	184	
21-Mar-19	105	191	15.11	32.46	276	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m³
Maximum	137	704	27.67	78.81	1043	
Minimum	10	53	1	7	86	
Average	45.21	199.79	7.58	23.93	320.58	
95 Percentile	105.00	523.05	21.20	52.96	839.30	
98 Percentile	122.28	631.32	24.73	68.47	958.82	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

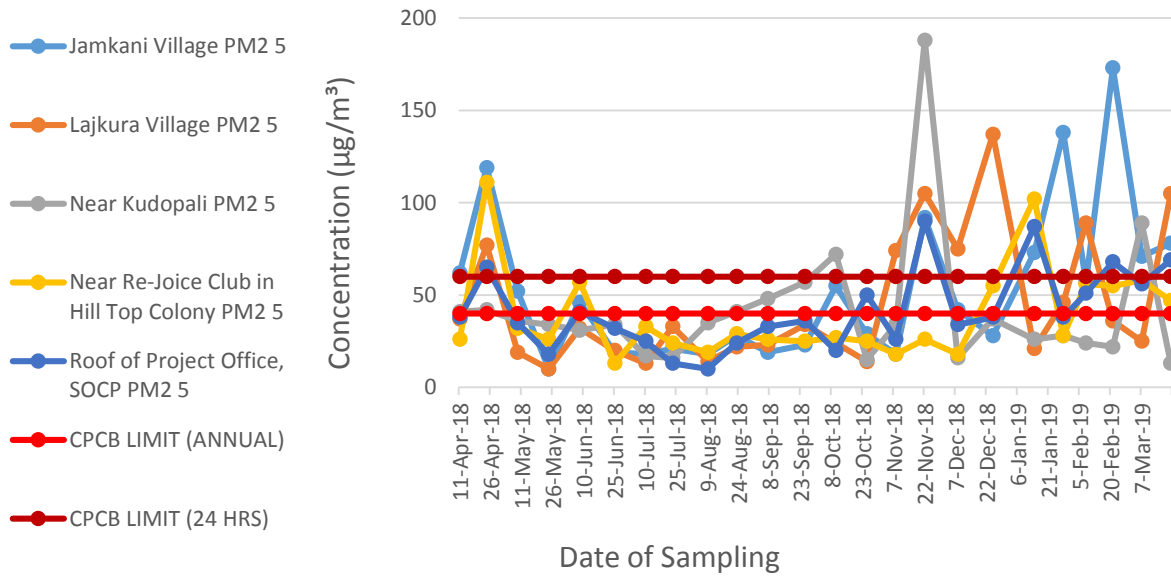
Table :20
Project: Samleswari OCP
Monitoring Station: Near Re-Joice Club in Hill Top Colony

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
9-Apr-18	26	289	0.72	<6	483	
23-Apr-18	111	563	1.12	14	1176	
8-May-18	32	174	3.9	<6	257	
22-May-18	26	64	4.02	<6	96	
7-Jun-18	57	158	3.44	<6	194	
23-Jun-18	13	52	0.56	7.22	130	
9-Jul-18	33	82	3.68	10.57	134	
21-Jul-18	24	51	1.86	<6	94	
8-Aug-18	19	54	1.09	15.19	96	
22-Aug-18	29	82	2.21	17.02	150	
6-Sep-18	26	111	7.13	8.49	142	
24-Sep-18	25	223	4.26	<6	282	
9-Oct-18	27	156	1.48	19.9	441	
24-Oct-18	25	255	1.87	<6	341	
7-Nov-18	18	105	2.8	11.12	158	
21-Nov-18	26	565	4.33	8.24	743	
7-Dec-18	18	345	10.63	29.24	442	
24-Dec-18	55	260	47.06	11.24	391	
13-Jan-19	102	337	12.59	14.96	422	
24-Jan-19	28	222	13.95	23.52	334	
7-Feb-19	56	414	10.24	19.85	578	
20-Feb-19	55	158	14.36	29.78	211	
6-Mar-19	58	282	11.93	26.3	455	
26-Mar-19	47	148	14.64	33.6	225	
Brief Statistics	PM_{2.5}	PM₁₀	SO₂	NO_x	PM_{2.5}	All values in µg/m³
Maximum	111	565	47.06	33.6	1176	
Minimum	13	51	1	7	94	
Average	39.00	214.58	7.49	17.66	332.29	
95 Percentile	95.40	540.65	14.60	30.54	718.25	
98 Percentile	106.86	564.08	32.15	32.38	976.82	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

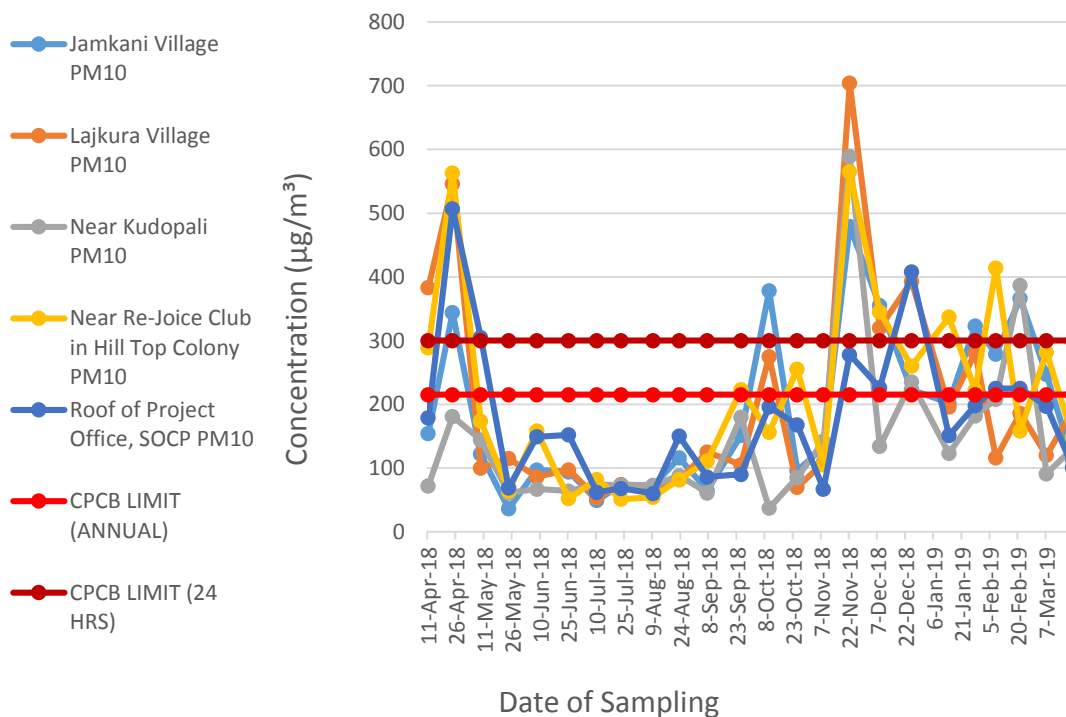
Table :21
Project: Samleswari OCP
Monitoring Station: Roof of Project Office

Date of Sampling	PM2.5	PM10	SO2	NOx	SPM	
9-Apr-18	38	179	1.22	8.31	276	
23-Apr-18	65	507	0.37	6	755	
8-May-18	35	305	3.29	<6	351	
22-May-18	18	69	1.72	<6	143	
7-Jun-18	41	149	1.3	<6	197	
23-Jun-18	32	152	0.7	<6	230	
9-Jul-18	25	62	1.69	6.12	84	
21-Jul-18	13	68	1.7	<6	103	
8-Aug-18	10	60	1.75	8.9	153	
22-Aug-18	24	150	1.16	9.43	200	
6-Sep-18	33	86	2.44	7.85	112	
24-Sep-18	36	90	4.3	6.33	117	
9-Oct-18	20	196	2.62	<6	514	
24-Oct-18	50	168	1.27	<6	374	
7-Nov-18	26	67	3.34	16.57	87	
21-Nov-18	90	278	2.36	15.61	579	
7-Dec-18	34	226	13.22	11.01	311	
24-Dec-18	38	408	10.44	20.4	732	
13-Jan-19	87	151	13.38	15.93	194	
24-Jan-19	38	198	10.39	28.11	253	
7-Feb-19	51	225	11.26	66.14	357	
20-Feb-19	68	225	18.96	24.25	274	
6-Mar-19	56	197	13.9	19.48	423	
26-Mar-19	69	101	11.65	29.49	179	
Brief Statistics	PM2.5	PM10	SO2	NOx	SPM	All values in µg/m3
Maximum	90	507	18.96	66.14	755	
Minimum	10	60	0	6	84	
Average	41.54	179.88	5.60	17.64	291.58	
95 Percentile	84.30	392.55	13.82	36.82	709.05	
98 Percentile	88.62	461.46	16.63	54.41	744.42	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

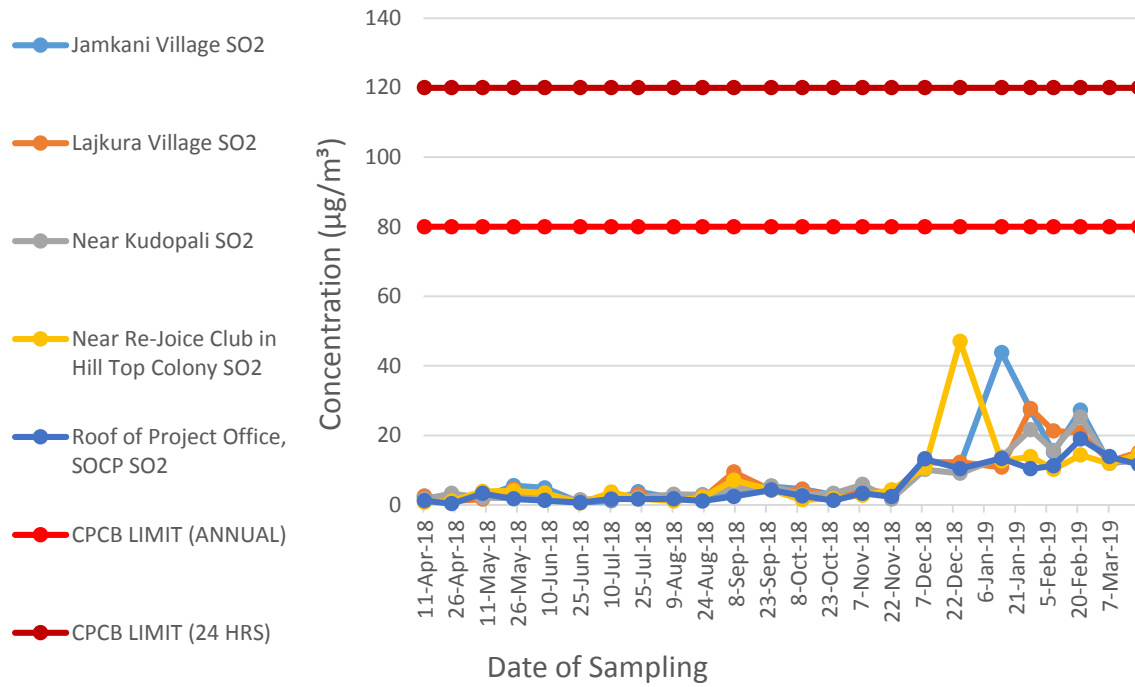
Graph 1: Showing PM_{2.5} for Samleswari OCP



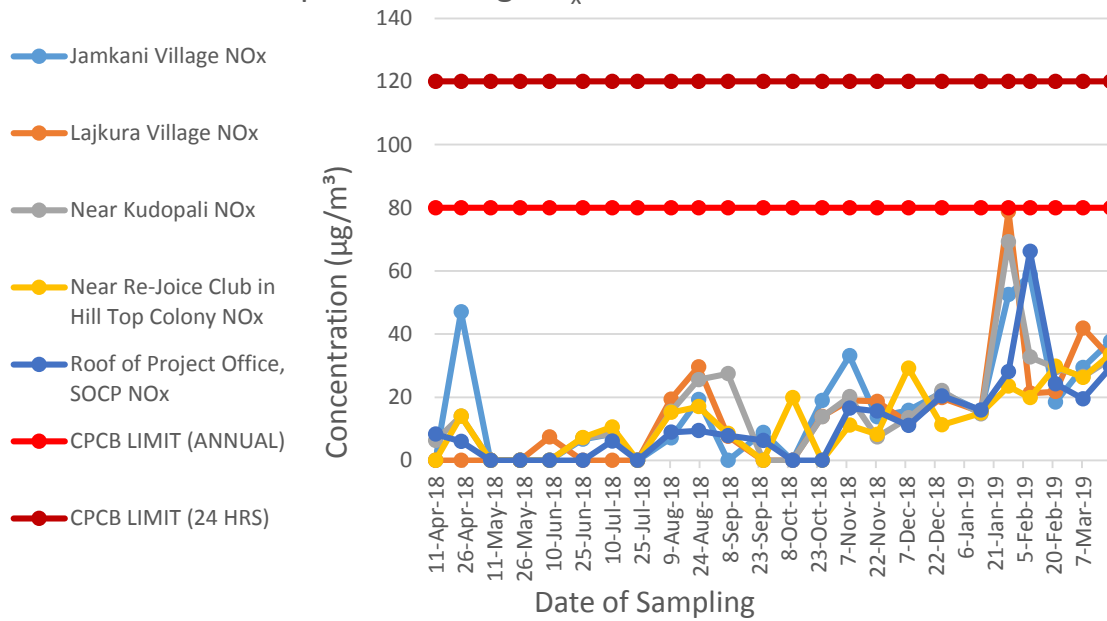
Graph 2: Showing PM₁₀ for Samleswari OCP



Graph 3: Showing SO_x for Samleswari OCP



Graph 4: Showing NO_x for Samleswari OCP



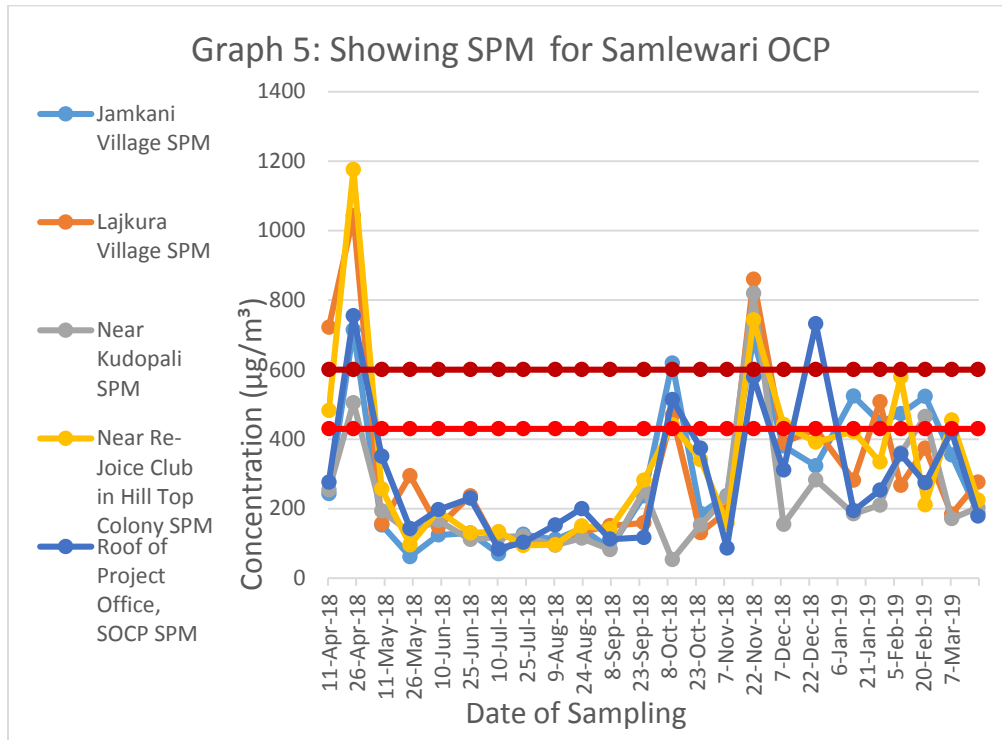


Table :22
Project: Lajkura OCP
Monitoring Station: Near Adarsh Nagar Colony

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
6-Apr-18	24	195	0.98	-	362	
20-Apr-18	37	54	1.51	6	271	
7-May-18	13	93	4.34	<6	285	
21-May-18	25	165	3.91	<6	269	
6-Jun-18	32	54	1.52	15.02	113	
21-Jun-18	23	59	3.35	<6	117	
6-Jul-18	17	106	2.09	<6	181	
20-Jul-18	23	71	1.52	<6	108	
7-Aug-18	20	73	2	9.3	125	
21-Aug-18	37	108	1.96	<6	152	
5-Sep-18	33	78	1.41	7.84	98	
21-Sep-18	15	95	3.44	<6	114	
8-Oct-18	38	134	2.76	<6	171	
24-Oct-18	17	66	1.83	<6	100	
6-Nov-18	29	367	5.22	19.41	481	
20-Nov-18	17	228	3.28	22.93	395	
6-Dec-18	105	255	12.24	13.58	283	
21-Dec-18	88	273	11.43	33.62	283	
12-Jan-19	19	59	22.08	18.44	98	
23-Jan-19	59	182	10.55	10.47	262	
6-Feb-19	51	294	11.22	15.7	350	
19-Feb-19	106	185	12.55	19.48	394	
5-Mar-19	47	139	13.98	41.52	235	
23-Mar-19	55	129	13.9	31.43	242	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m ³
Maximum	106	367	22.08	41.52	481	
Minimum	13	54	1	6	98	
Average	38.75	144.25	6.21	18.91	228.71	
95 Percentile	102.45	290.85	13.97	36.39	394.85	
98 Percentile	105.54	333.42	18.35	39.47	441.44	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :23
Project: Lajkura OCP
Monitoring Station: Near Baghmara Nala

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
6-Apr-18	82	249	1.71	72.55	301	
20-Apr-18	75	171	0.58	<6	365	
7-May-18	15	235	2.1	<6	296	
21-May-18	21	89	4.83	<6	169	
6-Jun-18	24	128	2.41	6.19	229	
21-Jun-18	27	349	2.2	10.05	513	
6-Jul-18	47	152	1.81	10.68	199	
20-Jul-18	35	92	4.05	<6	144	
7-Aug-18	20	82	1.27	13.89	116	
21-Aug-18	27	76	0.79	<6	96	
5-Sep-18	26	94	4.07	9.48	129	
21-Sep-18	40	108	4.89	7.82	168	
8-Oct-18	16	138	2.99	<6	162	
23-Oct-18	34	265	1.43	<6	323	
6-Nov-18	56	239	3.41	11.35	306	
20-Nov-18	59	117	2.67	11.41	329	
6-Dec-18	25	133	14.37	16.22	222	
21-Dec-18	42	80	10.74	24.13	198	
14-Jan-19	76	119	22.47	13.33	234	
23-Jan-19	26	156	13.44	12.04	307	
6-Feb-19	11	123	22.02	54.5	160	
19-Feb-19	74	243	14.17	14.86	293	
5-Mar-19	31	156	15.05	22.37	338	
25-Mar-19	61	111	19.16	40.14	292	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	82	349	22.47	72.55	513	
Minimum	11	76	1	6	96	
Average	39.58	154.38	7.19	20.65	245.38	
95 Percentile	75.85	262.60	21.59	58.11	360.95	
98 Percentile	79.24	310.36	22.26	66.77	444.92	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

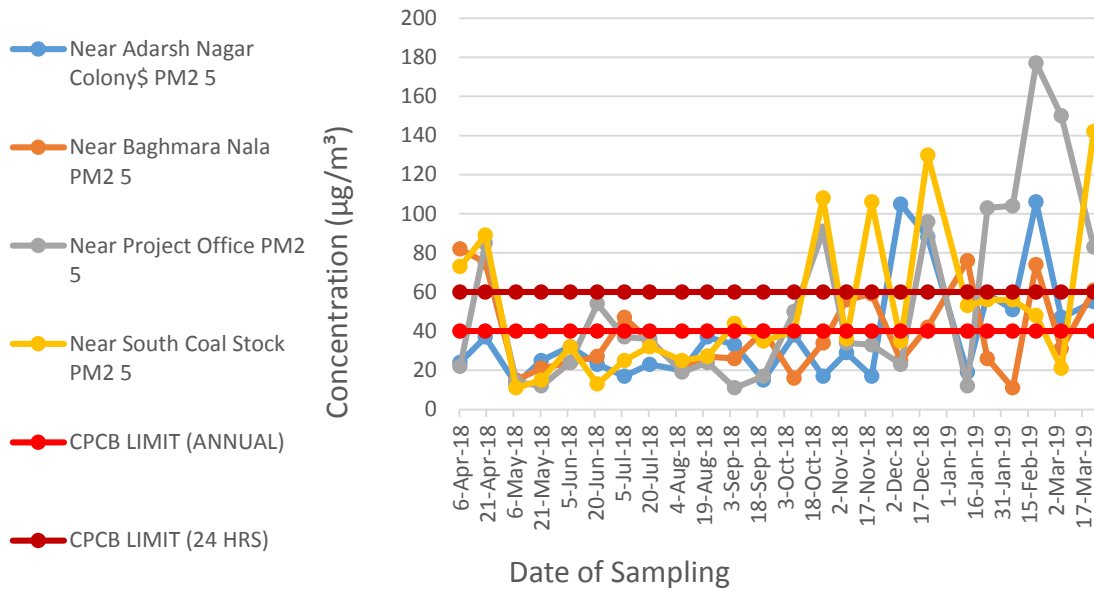
Table :24
Project: Lajkura OCP
Monitoring Station: Near Project Office

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
6-Apr-18	22	294	2.36	13.82	366	
20-Apr-18	85	316	0.66	<6	419	
7-May-18	14	87	4.16	<6	389	
21-May-18	12	75	2.27	<6	251	
6-Jun-18	24	56	1.9	7.26	79	
21-Jun-18	54	264	2.18	<6	353	
6-Jul-18	37	77	0.92	<6	110	
25-Jul-18	36	138	1.72	<6	209	
7-Aug-18	19	72	1.03	<6	90	
21-Aug-18	24	91	3.12	9.22	154	
5-Sep-18	11	147	5.05	<6	170	
21-Sep-18	17	93	4.13	8.8	171	
8-Oct-18	50	328	3.61	<6	593	
23-Oct-18	91	235	1.13	<6	264	
6-Nov-18	34	276	4.32	26.36	363	
20-Nov-18	33	392	1.61	<6	544	
6-Dec-18	23	107	14.51	19.8	228	
21-Dec-18	96	224	30.34	16.08	235	
12-Jan-19	12	262	16.91	25.22	354	
23-Jan-19	103	397	21.29	20.29	469	
6-Feb-19	104	528	11.21	67.44	596	
19-Feb-19	177	335	14.11	15.55	422	
5-Mar-19	150	345	13.83	49.7	478	
23-Mar-19	83	132	13.63	37.43	232	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	177	528	30.34	67.44	596	
Minimum	11	56	1	7	79	
Average	54.63	219.63	7.33	24.38	314.13	
95 Percentile	143.10	396.25	20.63	56.80	585.65	
98 Percentile	164.58	467.74	26.18	63.18	594.62	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

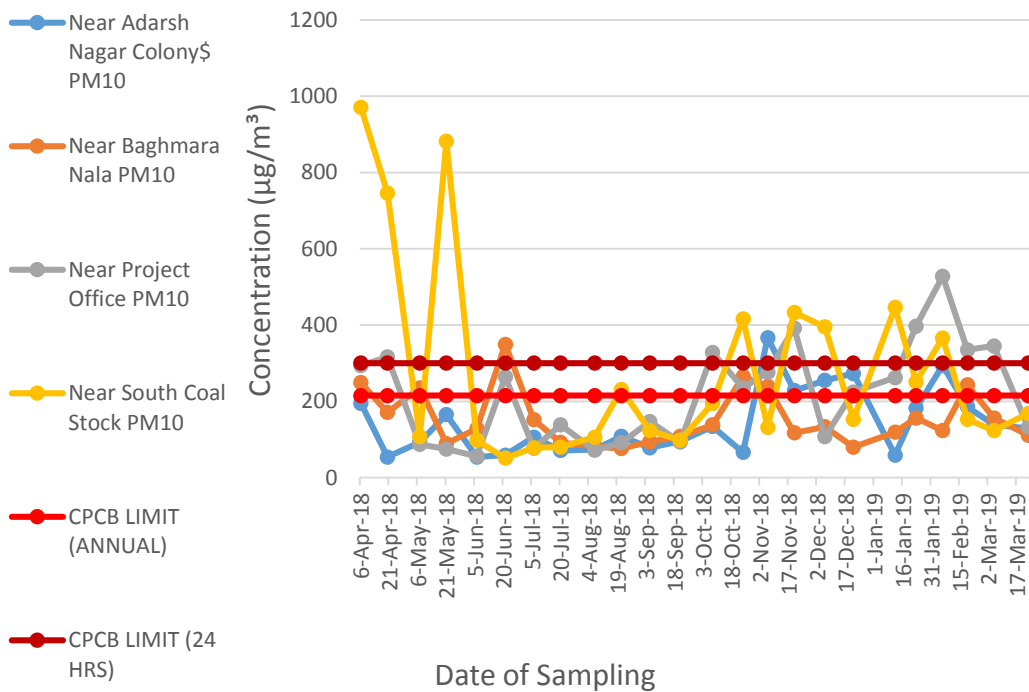
Table :25
Project: Lajkura OCP
Monitoring Station: Near South Coal Stock

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
7-Apr-18	73	971	1.43	<6	1902	
20-Apr-18	89	746	0.6	<6	921	
7-May-18	11	107	2.68	<6	315	
21-May-18	15	882	5.7	<6	1144	
6-Jun-18	32	98	1.45	<6	166	
28-Jun-18	13	51	2.12	7.01	84	
6-Jul-18	25	78	1.68	7.54	128	
20-Jul-18	32	80	2.54	<6	140	
7-Aug-18	25	106	1.38	13.36	135	
21-Aug-18	27	231	2	9	299	
5-Sep-18	44	123	4.31	<6	162	
21-Sep-18	35	98	8.22	31.41	128	
8-Oct-18	40	195	2.05	14.92	211	
23-Oct-18	108	416	1.88	<6	460	
6-Nov-18	36	132	3.24	18.36	231	
20-Nov-18	106	433	1.64	6.38	638	
6-Dec-18	35	395	10.02	22.86	454	
21-Dec-18	130	153	16.58	19.88	214	
12-Jan-19	53	446	14.36	15.39	544	
23-Jan-19	56	251	13.12	13.52	391	
6-Feb-19	56	366	11.93	73.19	449	
19-Feb-19	48	153	22.31	19.7	230	
5-Mar-19	21	123	14.92	35.06	295	
23-Mar-19	142	168	20.66	43.56	252	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m ³
Maximum	142	971	22.31	73.19	1902	
Minimum	11	51	1	6	84	
Average	52.17	283.42	6.95	21.95	412.21	
95 Percentile	126.70	861.60	20.05	50.97	1110.55	
98 Percentile	136.48	930.06	21.55	64.30	1553.32	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

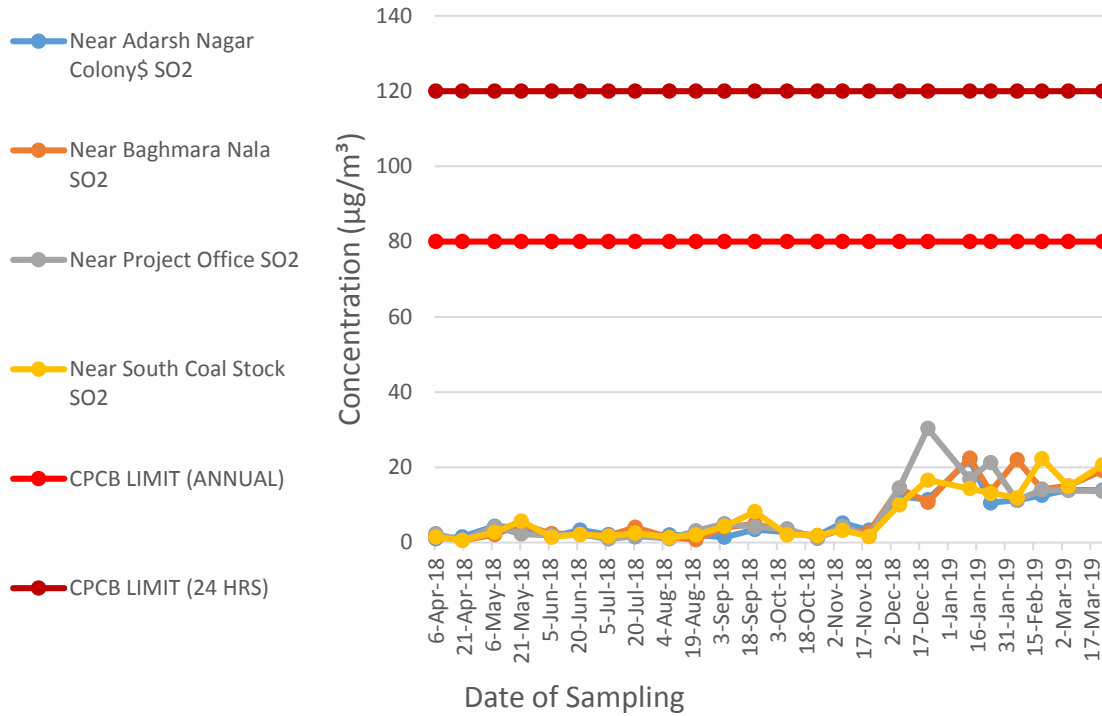
Graph 6: Showing PM_{2.5} for Lajkura OCP



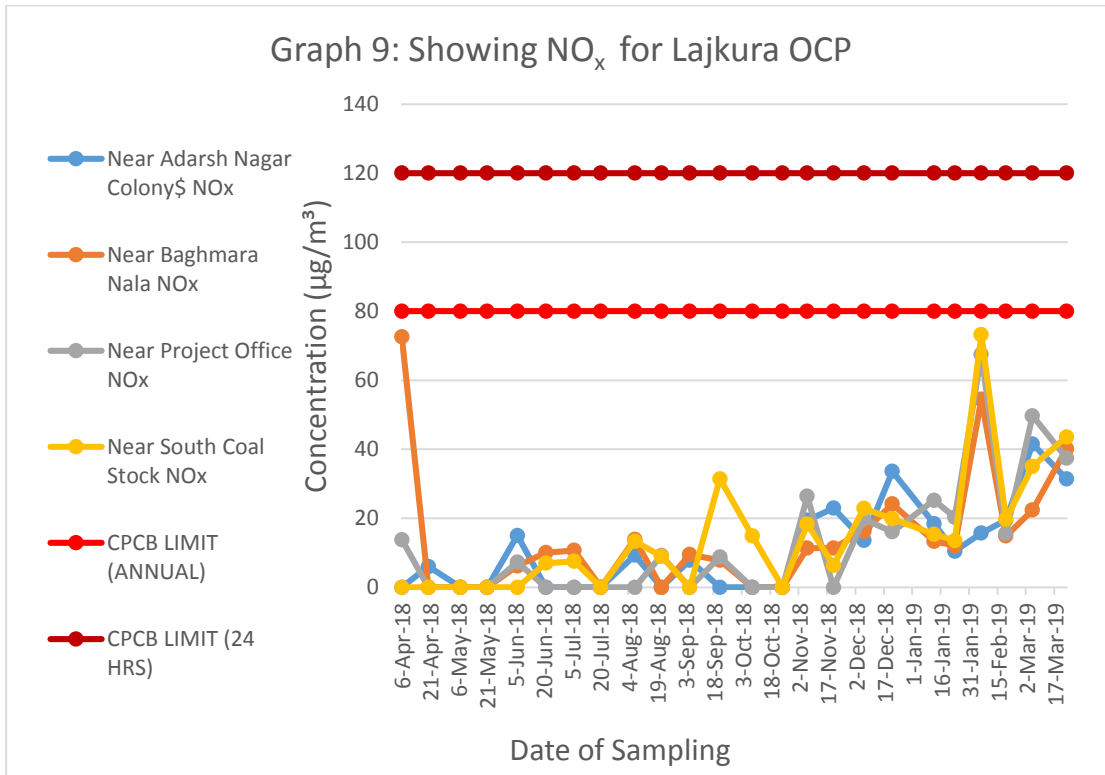
Graph 7: Showing PM₁₀ for Lajkura OCP



Graph 8: Showing SO_x for Lajkura OCP



Graph 9: Showing NO_x for Lajkura OCP



Graph 10: Showing SPM for Lajkura OCP

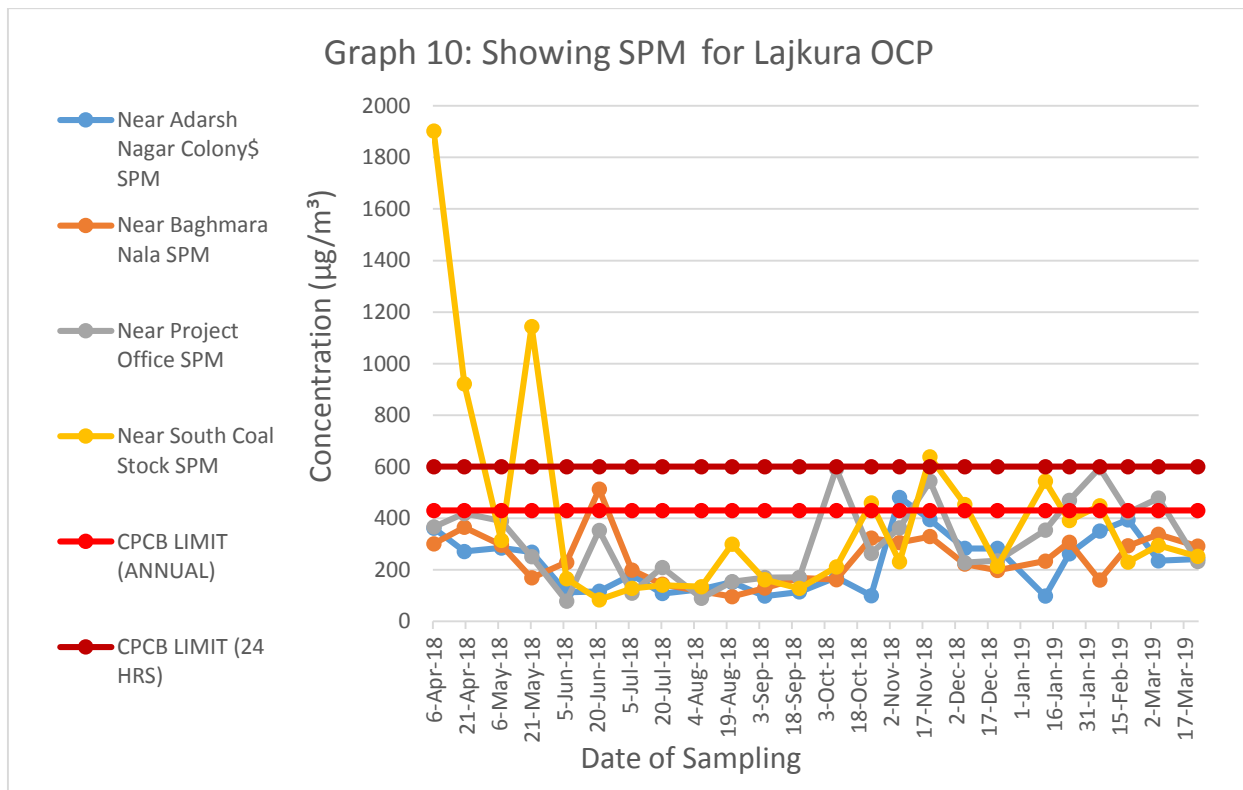


Table :26
Project: Lakhanpur OCP
Monitoring Station: Near East of Quarry 1

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
11-Apr-18	17	116	1.92	<6	376	
25-Apr-18	74	118	1.05	13	240	
10-May-18	29	236	3.62	<6	375	
23-May-18	13	74	5.27	<6	153	
11-Jun-18	13	96	2.97	<6	178	
26-Jun-18	23	86	0.43	<6	144	
11-Jul-18	22	106	1.1	<6	163	
24-Jul-18	22	51	2.91	<6	92	
10-Aug-18	29	117	1.41	8.52	172	
24-Aug-18	14	82	1.53	26.9	106	
8-Sep-18	33	114	2.57	<6	130	
26-Sep-18	19	179	6.59	38.77	231	
11-Oct-18	17	42	4.72	<6	68	
26-Oct-18	22	312	1.75	14.07	353	
9-Nov-18	33	101	4.09	<6	186	
23-Nov-18	17	473	3.3	12.72	763	
10-Dec-18	33	199	10.73	10.27	262	
26-Dec-18	18	160	21.74	19.2	207	
15-Jan-19	70	220	14.26	40.06	312	
29-Jan-19	12	57	13.47	20.81	120	
11-Feb-19	107	238	10.62	19.56	337	
22-Feb-19	72	175	8.75	12.23	221	
8-Mar-19	81	330	10.71	24.82	418	
27-Mar-19	80	120	13.46	34.98	185	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	107	473	21.74	40.06	763	
Minimum	12	42	0	9	68	
Average	36.25	158.42	6.21	21.14	241.33	
95 Percentile	80.85	327.30	14.14	39.22	411.70	
98 Percentile	95.04	407.22	18.30	39.72	604.30	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :27
Project: Lakhanpur OCP
Monitoring Station: Near Quarry 3

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
11-Apr-18	34	185	1.29	<6	288	
25-Apr-18	73	324	2.04	<6	551	
10-May-18	38	154	4.19	<6	267	
24-May-18	19	153	1.68	<6	290	
11-Jun-18	10	143	1.29	<6	176	
26-Jun-18	27	51	2.2	7.86	88	
11-Jul-18	30	100	1.61	<6	136	
24-Jul-18	12	42	3.06	<6	77	
10-Aug-18	19	60	3.02	15.08	101	
24-Aug-18	27	102	1.28	45.64	149	
8-Sep-18	87	188	6.32	<6	225	
26-Sep-18	25	68	4.58	12.69	111	
11-Oct-18	12	35	5.7	8.55	73	
26-Oct-18	17	88	10.52	8.66	186	
9-Nov-18	50	176	5.4	9.82	248	
23-Nov-18	58	352	2.58	11.12	528	
10-Dec-18	18	138	12.16	11.78	234	
26-Dec-18	23	119	10.56	16.88	157	
14-Jan-19	94	324	20.43	16.09	389	
29-Jan-19	32	92	35.08	53.77	173	
11-Feb-19	20	275	11.58	22.68	351	
22-Feb-19	13	73	20	38.34	164	
8-Mar-19	46	96	13.29	23.56	152	
27-Mar-19	28	110	15.23	38.89	216	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	94	352	35.08	53.77	551	
Minimum	10	35	1	8	73	
Average	33.83	143.67	8.13	21.34	222.08	
95 Percentile	84.90	324.00	20.37	47.67	507.15	
98 Percentile	90.78	339.12	28.34	51.33	540.42	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

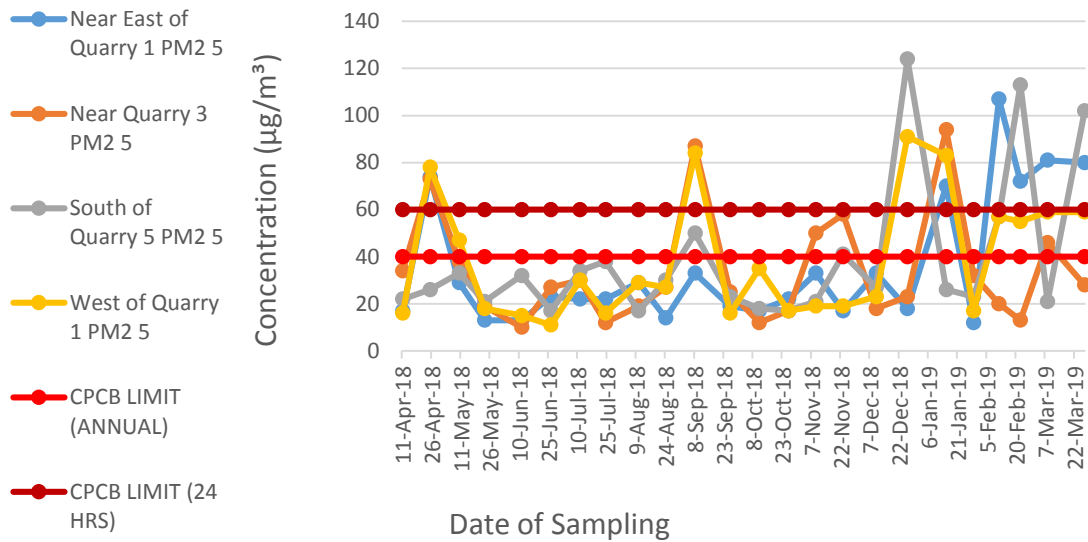
Table :28
Project: Lakhanpur OCP
Monitoring Station: South of Quarry 5

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
10-Apr-18	22	70	3.18	<6	201	
25-Apr-18	26	177	1.13	10	431	
10-May-18	33	185	3.09	<6	212	
24-May-18	21	107	3.69	<6	174	
11-Jun-18	32	54	0.96	<6	79	
26-Jun-18	17	72	1.4	3.99	110	
11-Jul-18	34	66	0.9	<6	116	
24-Jul-18	38	85	3.98	<6	121	
10-Aug-18	17	77	2.08	13.7	104	
24-Aug-18	30	86	1.4	15.74	115	
8-Sep-18	50	143	3.73	13.16	177	
26-Sep-18	23	91	4.94	25.76	179	
11-Oct-18	18	152	2.91	<6	350	
26-Oct-18	17	364	3.12	9.74	404	
9-Nov-18	21	208	3.51	19.53	418	
23-Nov-18	41	388	2.02	16.54	511	
10-Dec-18	27	157	18.3	20.38	244	
26-Dec-18	124	166	13.09	16.23	216	
14-Jan-19	26	140	20.28	17.76	347	
29-Jan-19	23	80	23.15	14.6	112	
11-Feb-19	57	107	10.75	37.89	165	
22-Feb-19	113	432	30.39	24.79	540	
8-Mar-19	21	164	13.03	23.93	241	
26-Mar-19	102	168	15.28	36.47	268	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	124	432	30.39	37.89	540	
Minimum	17	54	1	4	79	
Average	38.88	155.79	7.76	18.84	243.13	
95 Percentile	111.35	384.40	22.72	36.75	499.00	
98 Percentile	118.94	411.76	27.06	37.44	526.66	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

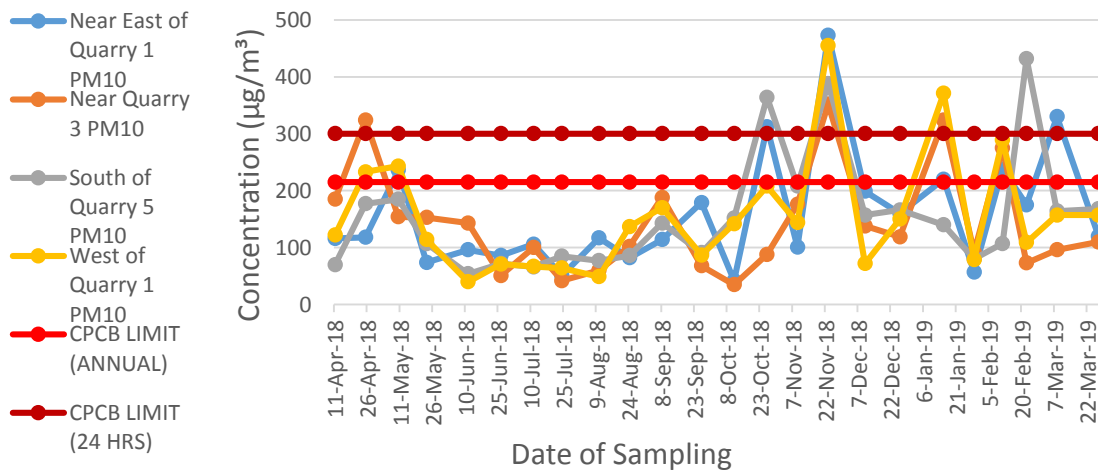
Table :29
Project: Lakhanpur OCP
Monitoring Station: West of Quarry 1

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
11-Apr-18	16	122	1.53	<6	250	
25-Apr-18	78	233	1.39	<6	337	
10-May-18	47	243	2.37	<6	546	
24-May-18	18	114	3.01	<6	134	
11-Jun-18	15	40	1.95	7.72	163	
26-Jun-18	11	71	1.31	<6	107	
11-Jul-18	30	67	1.59	6.84	98	
24-Jul-18	16	64	1.6	<6	101	
10-Aug-18	29	49	2.26	15.67	83	
24-Aug-18	27	137	2.08	19.84	176	
8-Sep-18	84	170	5.08	<6	212	
26-Sep-18	16	87	5.69	11.63	164	
11-Oct-18	35	142	4.3	<6	181	
26-Oct-18	17	208	2.36	19.4	251	
9-Nov-18	19	144	6.06	10.55	244	
23-Nov-18	19	455	2.38	11.09	584	
10-Dec-18	23	72	13.63	10.06	136	
26-Dec-18	91	150	14.1	23.25	218	
15-Jan-19	83	371	19.06	15.43	481	
30-Jan-19	17	79	16.78	48.97	137	
11-Feb-19	57	289	14.38	18.43	369	
22-Feb-19	55	109	11.3	23.69	212	
8-Mar-19	59	157	18.55	41.86	240	
27-Mar-19	59	157	16.93	24.21	259	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	91	455	19.06	48.97	584	
Minimum	11	40	1	7	83	
Average	38.38	155.42	7.07	19.29	236.79	
95 Percentile	83.85	358.70	18.31	43.64	536.25	
98 Percentile	87.78	416.36	18.83	46.84	566.52	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

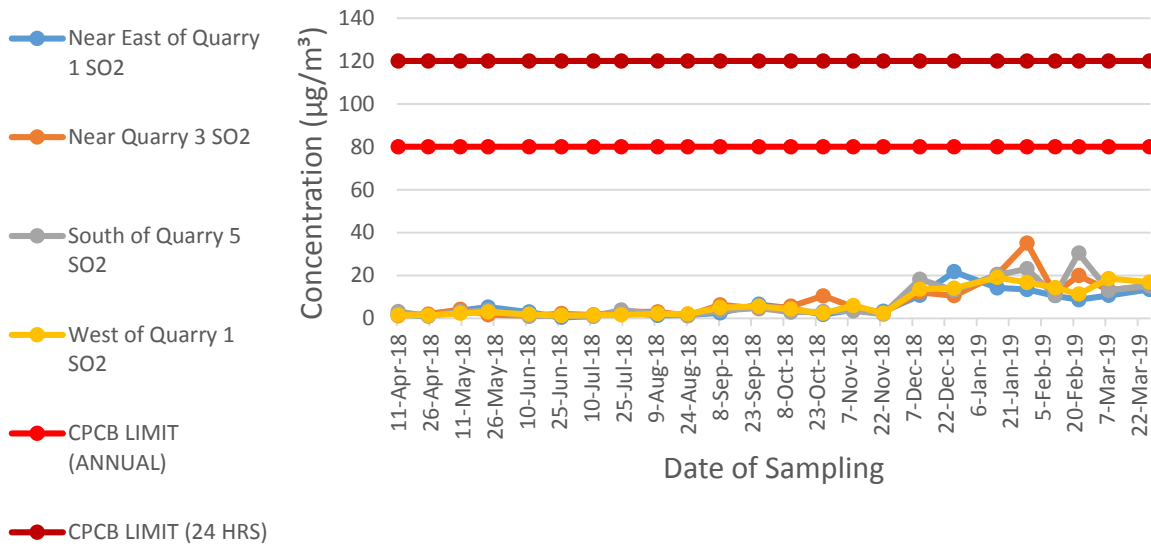
Graph 11: Showing PM_{2.5} for Lakhanpur OCP



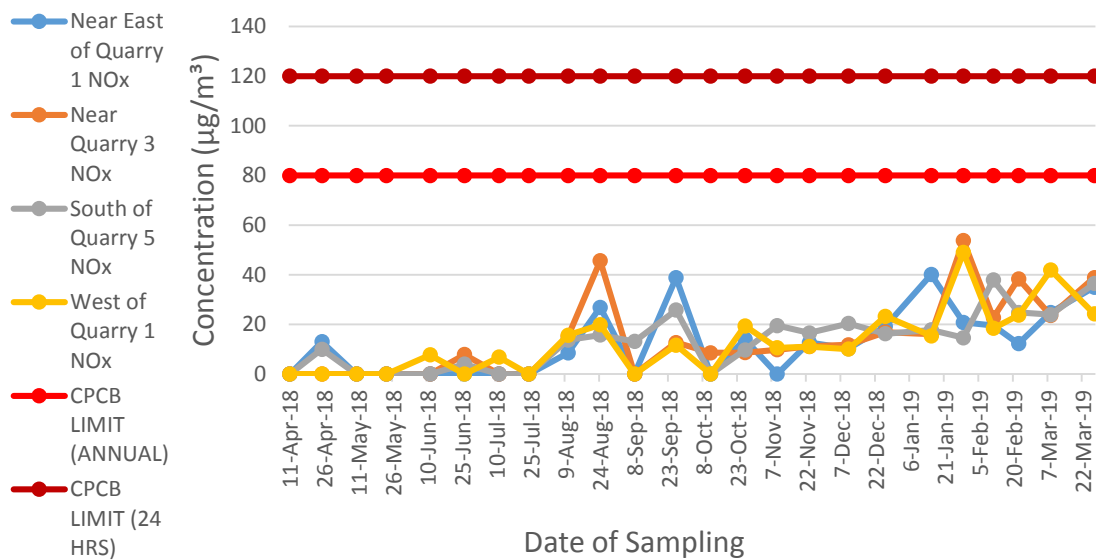
Graph 12: Showing PM₁₀ for Lakhanpur OCP



Graph 13: Showing SO_x for Lakhanpur OCP



Graph 14: Showing NO_x for Lakhanpur OCP



Graph 15: Showing SPM for Lakhanpur OCP

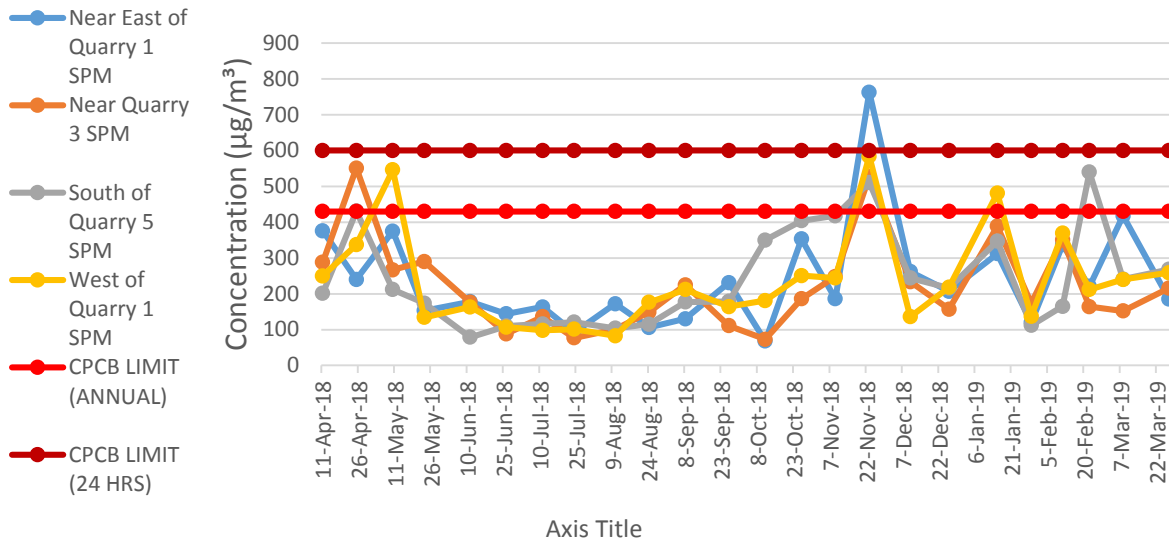


Table :30
Project: Belpahar OCP
Monitoring Station: Near PO Office

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
12-Apr-18	44	185	0.91	<6	225	
26-Apr-18	74	154	1.91	13	313	
11-May-18	12	101	4.05	<6	283	
25-May-18	27	61	4.83	<6	353	
12-Jun-18	23	42	1.37	11.62	60	
27-Jun-18	45	71	0.86	<6	92	
12-Jul-18	19	79	2.2	<6	128	
25-Jul-18	56	114	3.69	<6	161	
11-Aug-18	26	117	1.87	<6	135	
25-Aug-18	41	86	2.06	28.19	117	
11-Sep-18	56	166	3.48	13.39	209	
27-Sep-18	30	183	4.03	<6	312	
12-Oct-18	28	131	3.45	<6	185	
27-Oct-18	74	402	10.74	<6	428	
10-Nov-18	50	103	4.81	21.38	240	
24-Nov-18	11	384	1.09	6.25	536	
11-Dec-18	27	150	11.78	12.35	239	
27-Dec-18	52	332	16.38	28.59	368	
15-Jan-19	29	414	13.27	19.75	486	
30-Jan-19	56	111	33.36	24.39	150	
12-Feb-19	44	95	12.44	19.39	137	
25-Feb-19	66	119	12.08	22.62	240	
11-Mar-19	85	153	14.24	24.62	234	
28-Mar-19	49	190	18.39	20.26	290	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	85	414	33.36	28.59	536	
Minimum	11	42	1	6	60	
Average	42.67	164.29	7.64	18.99	246.71	
95 Percentile	74.00	399.30	18.09	28.33	477.30	
98 Percentile	79.94	408.48	26.47	28.49	513.00	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :31
Project: Belpahar OCP
Monitoring Station: Near Quarry 5

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
12-Apr-18	32	94	1.58	<6	134	
26-Apr-18	79	151	0.94	7	457	
11-May-18	36	172	2.46	<6	362	
25-May-18	89	163	6.96	<6	303	
12-Jun-18	27	44	3.07	7.21	64	
27-Jun-18	13	84	2.56	6.08	151	
12-Jul-18	23	75	1.75	<6	120	
25-Jul-18	13	62	2.96	<6	97	
11-Aug-18	42	68	1.8	8.45	106	
25-Aug-18	38	94	3.42	22.29	125	
10-Sep-18	29	182	8.23	14.9	220	
27-Sep-18	52	169	4.34	12.22	255	
12-Oct-18	30	116	2.7	9.46	150	
27-Oct-18	27	173	4.67	8.82	218	
10-Nov-18	34	166	3.4	26.9	319	
24-Nov-18	24	296	2.28	16.03	406	
11-Dec-18	56	116	10.27	12.39	180	
27-Dec-18	98	406	11.06	33.14	516	
15-Jan-19	37	141	15.94	21.18	210	
29-Jan-19	20	329	37.39	63.8	398	
12-Feb-19	156	291	13.89	49.85	352	
25-Feb-19	78	334	15.54	28.83	494	
11-Mar-19	78	440	10.72	36.54	568	
28-Mar-19	44	211	18.14	24.4	333	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	156	440	37.39	63.8	568	
Minimum	13	44	1	6	64	
Average	48.13	182.38	7.75	21.55	272.42	
95 Percentile	96.65	395.20	17.81	51.25	512.70	
98 Percentile	129.32	424.36	28.54	58.78	544.08	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

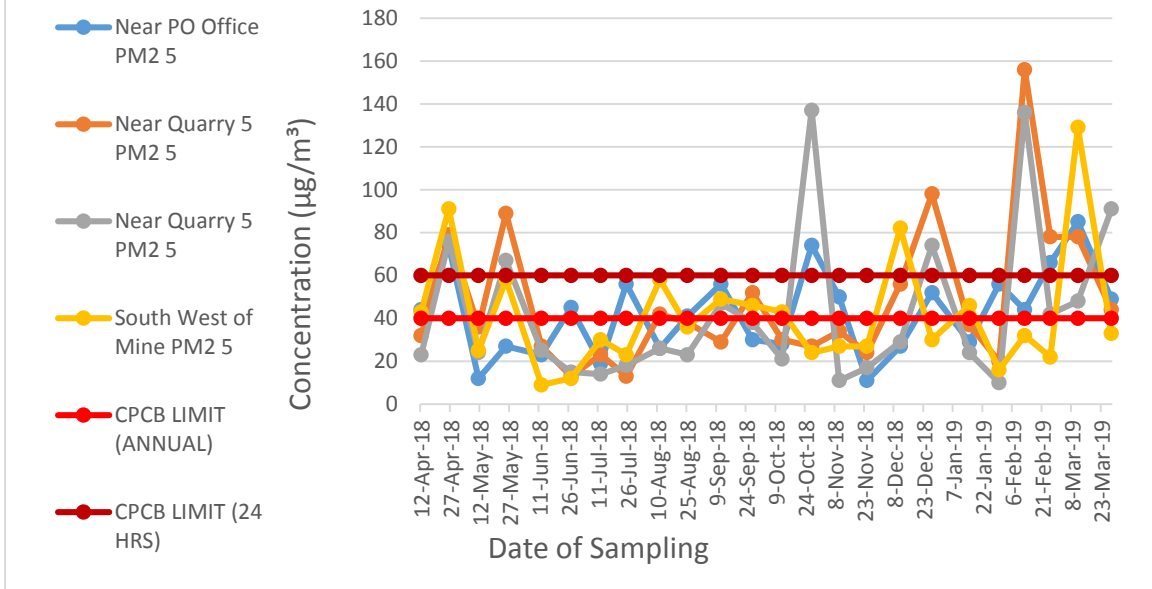
Table :32
Project: Belpahar OCP
Monitoring Station: Near Workshop

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
12-Apr-18	23	221	0.53		281	
26-Apr-18	76	283	1.27	<6	372	
11-May-18	24	63	5.23	<6	197	
25-May-18	67	224	9.33	6	273	
12-Jun-18	25	42	3.32	10.96	106	
27-Jun-18	15	85	1.83	<6	138	
12-Jul-18	14	73	1.42	<6	148	
25-Jul-18	18	83	2.45	<6	120	
11-Aug-18	26	55	3.13	7.13	84	
25-Aug-18	23	94	1.42	26.67	122	
10-Sep-18	47	191	4.66	6.59	259	
27-Sep-18	38	121	4.34	<6	217	
12-Oct-18	21	143	4.84	34.28	208	
27-Oct-18	137	194	3.23	<6	269	
10-Nov-18	11	74	4.3	16.41	175	
24-Nov-18	17	459	2.39	9.51	547	
11-Dec-18	29	184	10.86	11.97	243	
27-Dec-18	74	126	15.22	23.45	170	
15-Jan-19	24	94	16.06	16.55	121	
30-Jan-19	10	297	13.08	46.62	378	
12-Feb-19	136	225	14.2	22.08	282	
25-Feb-19	42	149	29.13	23.65	272	
11-Mar-19	48	109	12.42	19.67	163	
28-Mar-19	91	191	12	22.9	278	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	137	459	29.13	46.62	547	
Minimum	10	42	1	6	84	
Average	43.17	157.50	7.36	19.03	225.96	
95 Percentile	129.25	294.90	15.93	37.37	377.10	
98 Percentile	136.54	384.48	23.12	42.92	469.26	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

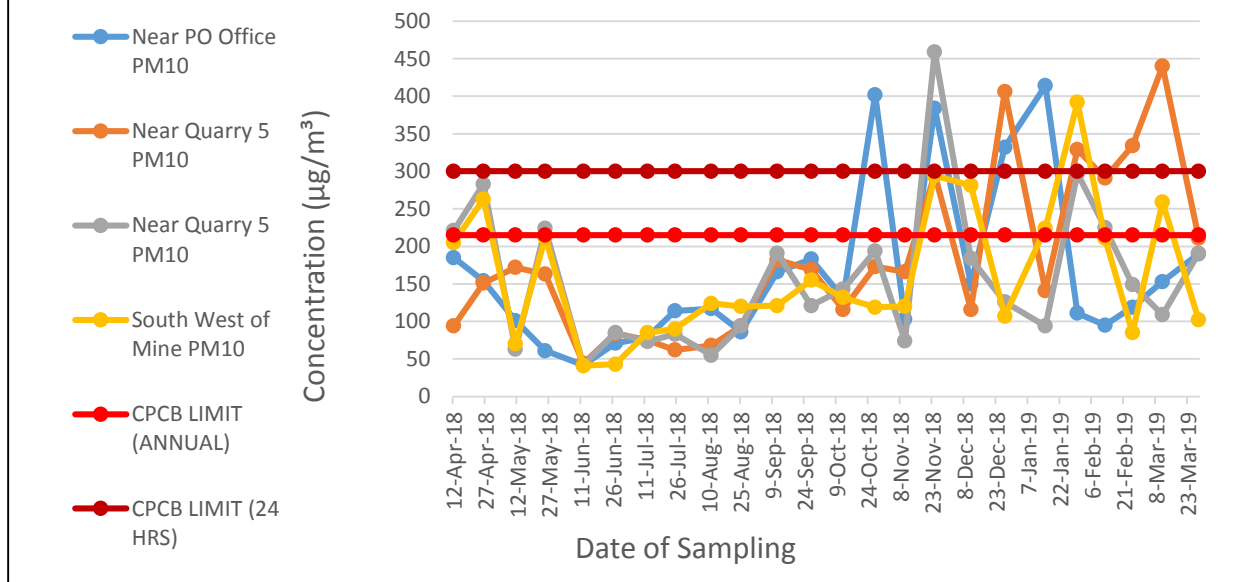
Table :33
Project: Belpahar OCP
Monitoring Station: South West of Mine

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
12-Apr-18	43	205	3.25	<6	308	
26-Apr-18	91	263	1.12	7	428	
11-May-18	25	70	2.19	<6	150	
25-May-18	58	212	1.8	<6	246	
12-Jun-18	9	41	2.58	<6	91	
27-Jun-18	12	43	0.8	<6	68	
12-Jul-18	30	85	1.49	<6	120	
25-Jul-18	23	90	4.24	<6	139	
11-Aug-18	58	124	1.38	6.26	161	
25-Aug-18	36	120	1.3	23.44	160	
10-Sep-18	49	121	4.31	<6	156	
27-Sep-18	46	155	3.65	<6	204	
12-Oct-18	43	132	9.46	16.26	162	
27-Oct-18	24	119	17.43	<6	174	
10-Nov-18	27	120	2.74	25.9	184	
24-Nov-18	27	294	3.19	13.55	378	
11-Dec-18	82	281	11.1	19.73	414	
27-Dec-18	30	107	11.7	21.04	160	
15-Jan-19	46	224	13.09	40.47	306	
30-Jan-19	16	392	26.8	16.76	545	
12-Feb-19	32	211	18.04	70.26	261	
25-Feb-19	22	85	15.44	29.15	318	
11-Mar-19	129	259	13.07	33.47	321	
27-Mar-19	33	102	22.59	35.33	178	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	129	392	26.8	70.26	545	
Minimum	9	41	1	6	68	
Average	41.29	160.63	8.03	25.62	234.67	
95 Percentile	89.65	292.05	21.91	50.90	425.90	
98 Percentile	111.52	346.92	24.86	62.51	491.18	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

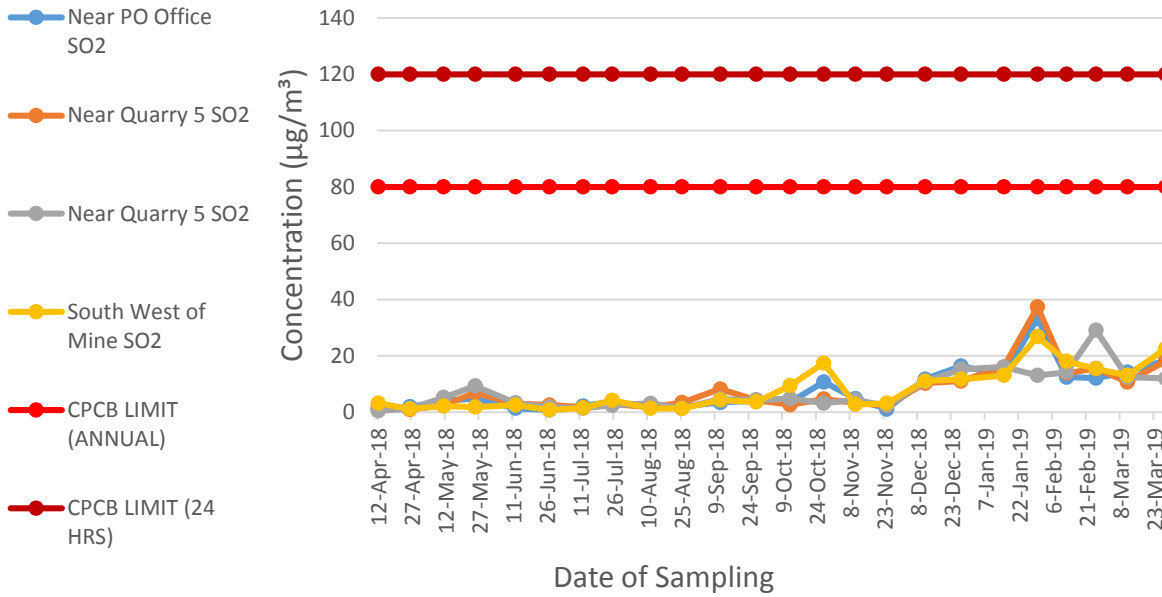
Graph 16: Showing PM_{2.5} for Belpahar OCP



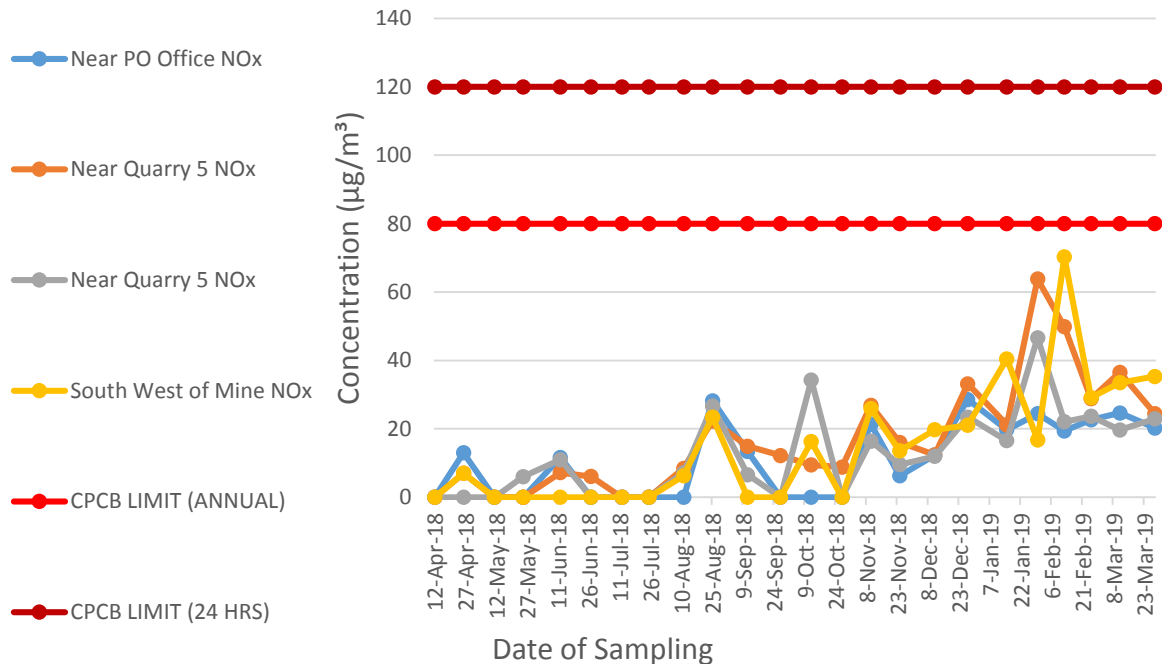
Graph 17: Showing PM₁₀ for Belpahar OCP



Graph 18: Showing SO_x for Belpahar OCP



Graph 19: Showing NO_x for Belpahar OCP



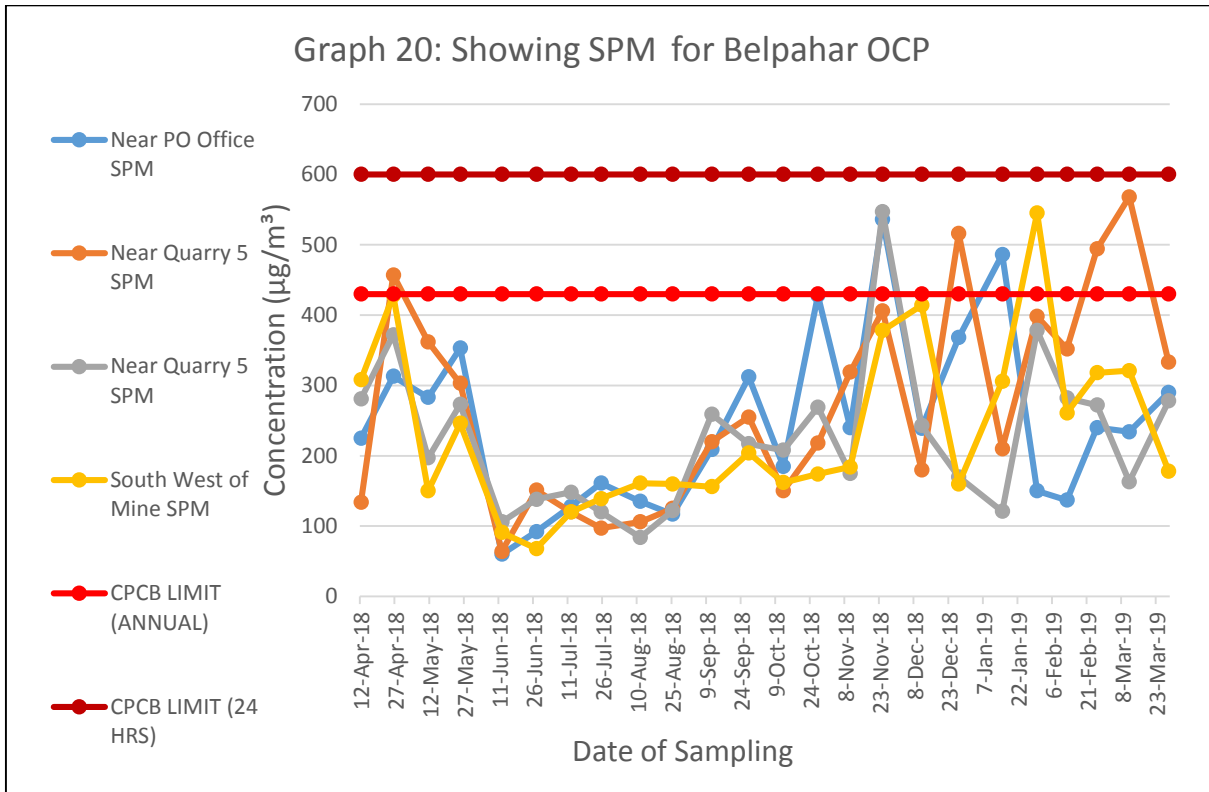
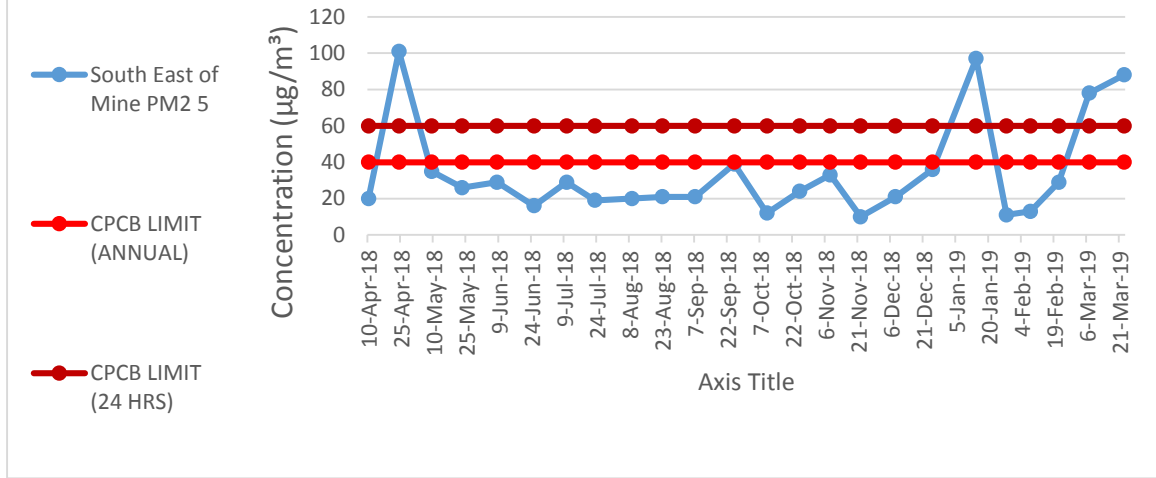


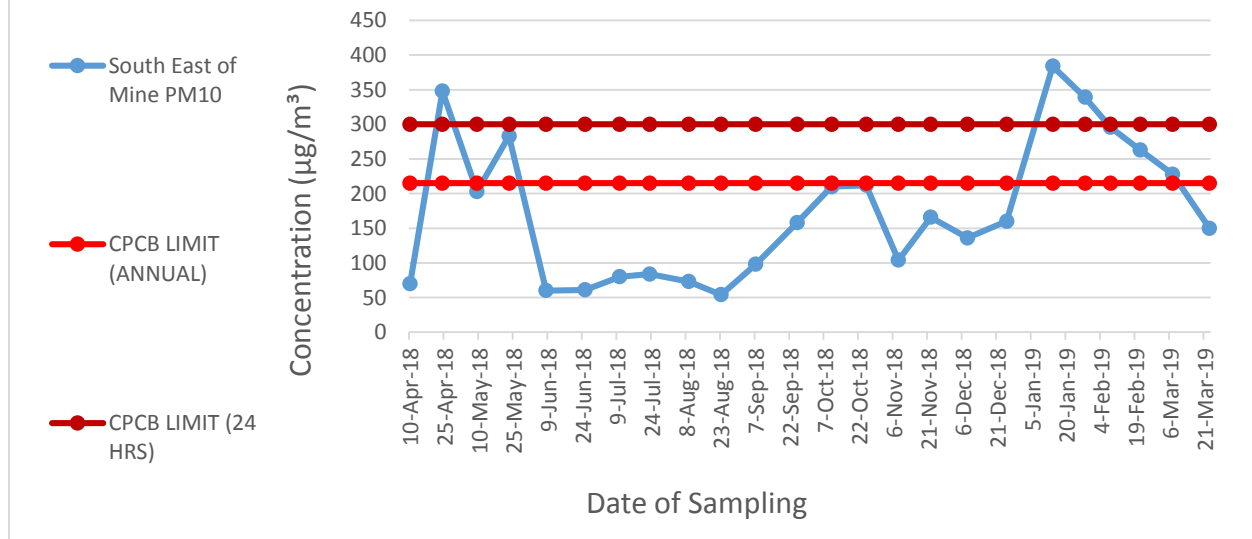
Table :34
Project: Lilari OCP
Monitoring Station: South East of Mine

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
10-Apr-18	20	70	2.93	<6	456	
24-Apr-18	101	348	0.59	<6	696	
9-May-18	35	203	1.92	<6	379	
23-May-18	26	283	4.12	<6	312	
8-Jun-18	29	60	1.56	<6	79	
25-Jun-18	16	61	0.32	<6	237	
10-Jul-18	29	80	2.07	6.92	119	
23-Jul-18	19	84	3.93	<6	123	
9-Aug-18	20	73	1.6	7.84	177	
23-Aug-18	21	54	2.24	13.04	73	
7-Sep-18	21	98	1.5	<6	121	
25-Sep-18	39	158	4.71	9.55	233	
10-Oct-18	12	210	5.78	<6	431	
25-Oct-18	24	212	1.97	15.52	295	
8-Nov-18	33	104	2.93	16.5	168	
22-Nov-18	10	166	1.56	8.46	200	
8-Dec-18	21	136	15.8	15.53	178	
25-Dec-18	36	160	12.25	26.44	180	
14-Jan-19	97	384	12.84	18.41	529	
28-Jan-19	11	339	24.83	52.67	666	
8-Feb-19	13	296	18.71	60.62	437	
21-Feb-19	29	263	49.17	40.83	340	
7-Mar-19	78	228	15.78	33.91	340	
23-Mar-19	88	150	13.61	39.63	217	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	101	384	49.17	60.62	696	
Minimum	10	54	0	7	73	
Average	34.50	175.83	8.45	24.39	291.08	
95 Percentile	95.65	346.65	23.91	55.06	645.45	
98 Percentile	99.16	367.44	37.97	58.39	682.20	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

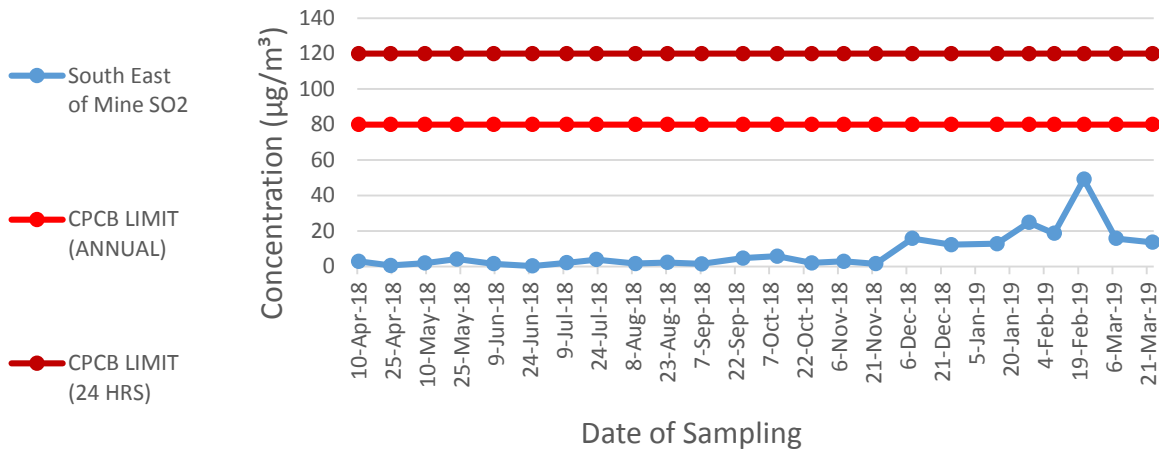
Graph 21: Showing PM_{2.5} for Lilari OCP



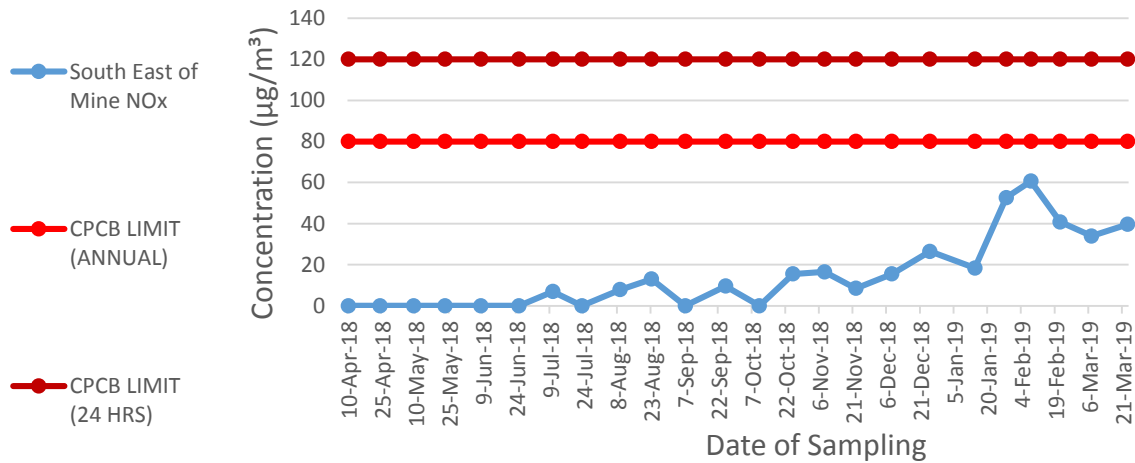
Graph 22: Showing PM₁₀ for Lilari OCP



Graph 23: Showing SO_x for Lilari OCP



Graph 24: Showing NO_x for Lilari OCP



Graph 25: Showing SPM for Lilari OCP

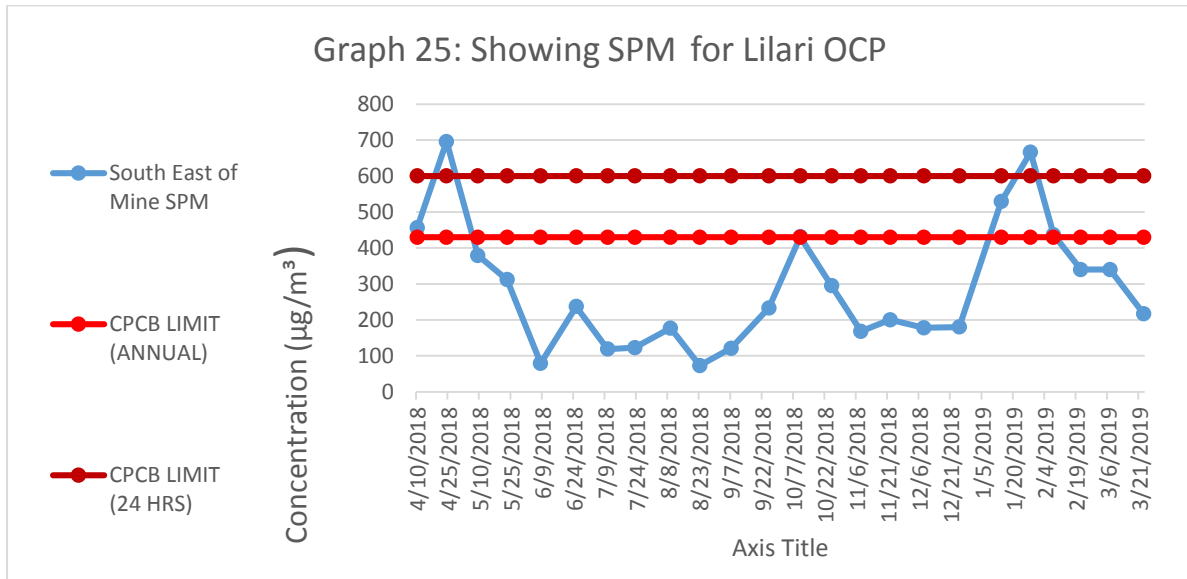


Table :35
Project: Kulda
Monitoring Station: South of External OB Dump

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM
4-Apr-18	29	331	1.41	18.93	881
18-Apr-18	60	78	1.56	<6	221
3-May-18	21	56	1.07	<6	107
17-May-18	25	73	6.08	<6	120
4-Jun-18	21	60	1.36	10.96	121
19-Jun-18	31	146	2.48	<6	338
4-Jul-18	54	121	0.93	6	237
18-Jul-18	47	140	3.6	<6	218
3-Aug-18	30	77	2.1	13.99	105
16-Aug-18	12	75	3.29	8.36	132
1-Sep-18	54	149	3.68	<6	191
18-Sep-18	31	167	3.7	15.42	227
3-Oct-18	76	398	4.57	9.95	511
15-Oct-18	22	37	3.32	<6	64
3-Dec-18	91	162	10.63	11.37	220
18-Dec-18	24	213	11.8	17.77	248
7-Jan-19	17	102	14.47	31.18	150
18-Jan-19	37	438	12.77	16.92	559
1-Feb-19	77	101	10.65	48.53	173
15-Feb-19	53	93	27.83	41.84	296
1-Mar-19	55	179	17.12	17.9	270
18-Mar-19	29	144	13.04	21.63	237
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM
Maximum	91	438	27.83	48.53	881
Minimum	12	37	1	6	64
Average	40.73	151.82	7.16	19.38	255.73
95 Percentile	76.95	394.65	16.99	43.85	556.60
98 Percentile	85.12	421.20	23.33	46.66	745.76
Standard (24 Hrs)	60	300	120	120	600
Standard (Annual)	40	215	80	80	430

All values in µg/m³

Table :36
Project: Kulda
Monitoring Station: External CT Road

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
3-Apr-18	9	117	1.48		312	
17-Apr-18	66	184	1.94	8	382	
2-May-18	11	115	3.45	<6	477	
16-May-18	10	55	3.15	<6	90	
1-Jun-18	46	117	2.29	8.67	212	
18-Jun-18	27	67	1.49	<6	170	
3-Jul-18	17	158	1.99	7.95	235	
17-Jul-18	28	95	2.04	<6	149	
3-Aug-18	20	79	2.2	9.39	205	
16-Aug-18	11	52	1.35	<6	98	
1-Sep-18	45	127	5.4	21.88	162	
18-Sep-18	14	125	2.53	11	157	
3-Oct-18	20	28	3.34	<6	66	
15-Oct-18	30	128	4.34	<6	195	
2-Nov-18	107	128	7.35	36.47	190	
16-Nov-18	13	70	6.36	17.78	258	
3-Dec-18	21	161	10.08	19.09	210	
18-Dec-18	14	93	21.76	19.91	139	
7-Jan-19	27	99	19.54	27.98	161	
18-Jan-19	22	89	10.06	12.34	191	
1-Feb-19	36	127	17.57	36.86	168	
15-Feb-19	39	373	16.66	20.05	452	
1-Mar-19	51	151	11.01	12.69	221	
18-Mar-19	53	106	18.48	27.94	240	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	107	373	21.76	36.86	477	
Minimum	9	28	1	8	66	
Average	30.71	118.50	7.33	18.63	214.17	
95 Percentile	64.05	180.55	19.38	36.57	441.50	
98 Percentile	88.14	286.06	20.74	36.74	465.50	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :37
Project: Kulda
Monitoring Station: West of Working Face/Near Tumulia

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
3-Apr-18	42	147	1.48	<6	455	
17-Apr-18	97	230	1.79	<6	329	
2-May-18	49	80	3.01	<6	438	
16-May-18	17	127	3.37	<6	227	
2-Jun-18	38	79	3.38	9.25	131	
18-Jun-18	46	219	2.6	<6	305	
3-Jul-18	32	122	1.05	6.34	191	
17-Jul-18	13	66	3.06	<6	99	
3-Aug-18	34	90	1.83	24.52	139	
16-Aug-18	20	68	1.19	8.49	92	
1-Sep-18	36	100	3.11	19.08	126	
18-Sep-18	34	141	4.72	9.85	205	
3-Oct-18	40	178	3.22	<6	327	
15-Oct-18	46	63	3.94	<6	114	
2-Nov-18	25	69	5.14	30.01	105	
16-Nov-18	34	245	4.98	13.01	582	
3-Dec-18	41	279	12.71	24.64	483	
18-Dec-18	30	83	17.54	14.4	160	
7-Jan-19	114	375	18.15	24.04	441	
18-Jan-19						
1-Feb-19	38	128	15.48	24.8	253	
15-Feb-19	21	87	22.45	47.63	158	
1-Mar-19	52	356	12.19	21.61	441	
19-Mar-19	102	155	23.56	33.86	291	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	114	375	23.56	47.63	582	
Minimum	13	63	1	6	92	
Average	43.52	151.61	7.39	20.77	264.87	
95 Percentile	101.50	348.30	22.02	37.99	480.20	
98 Percentile	108.72	366.64	23.07	43.77	538.44	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

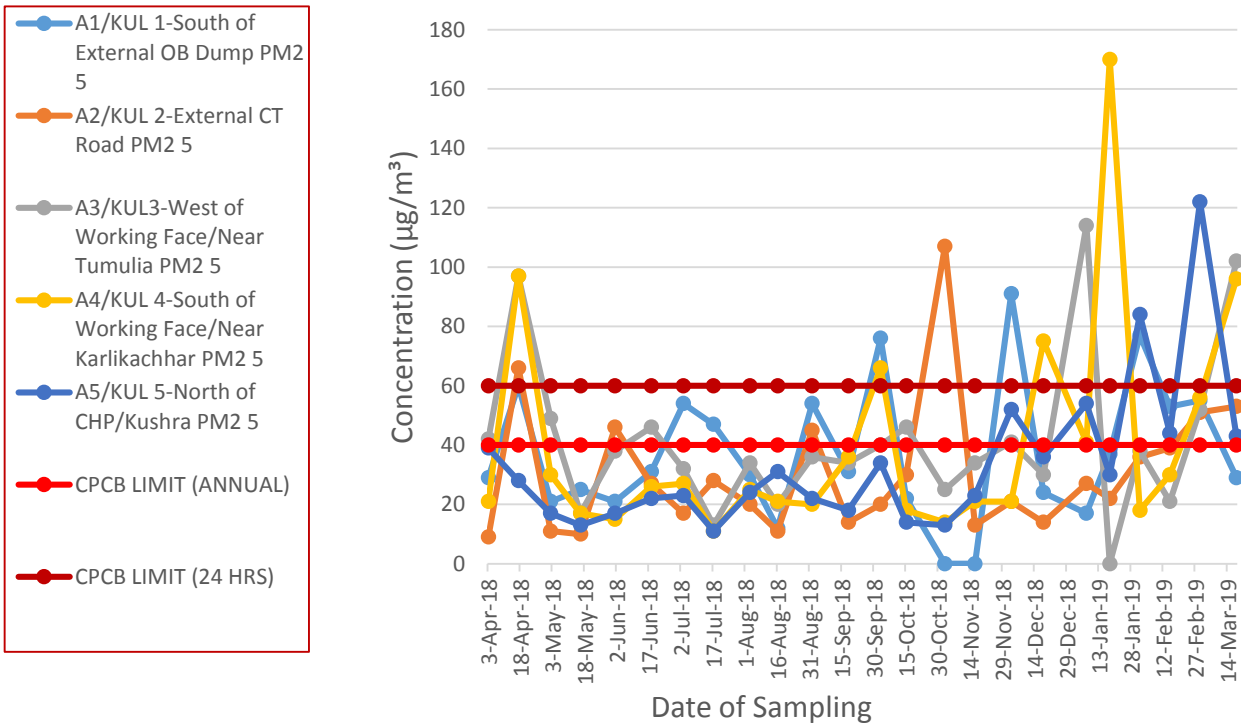
Table :38
Project: Kulda
Monitoring Station: South of Working Face/Near Karlikachhar

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
3-Apr-18	21	144	1.36	<6	460	
17-Apr-18	97	204	1.26	<6	362	
2-May-18	30	83	3.61	<6	151	
16-May-18	17	240	7.15	8	518	
2-Jun-18	15	159	1.29	<6	247	
18-Jun-18	26	90	2.12	<6	168	
4-Jul-18	27	112	2.01	<6	167	
17-Jul-18	11	48	3.14	6.16	75	
3-Aug-18	25	63	1.56	67.06	124	
16-Aug-18	21	83	1.23	33.44	125	
1-Sep-18	20	79	5.08	9.9	109	
18-Sep-18	36	174	6.83	12.04	366	
3-Oct-18	66	153	6.22	43.75	409	
15-Oct-18	18	192	2.86	<6	266	
2-Nov-18	14	67	6.01	12.25	101	
16-Nov-18	21	169	4.09	20.1	394	
3-Dec-18	21	123	10.92	11.6	219	
18-Dec-18	75	109	13.98	22.74	248	
7-Jan-19	41	193	19.21	30.84	317	
18-Jan-19	170	449	14.39	17.57	664	
1-Feb-19	18	163	11.19	17.74	213	
15-Feb-19	30	131	18.39	26.17	193	
1-Mar-19	56	331	12.61	25.55	424	
18-Mar-19	96	161	18.75	35.46	375	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	170	449	19.21	67.06	664	
Minimum	11	48	1	6	75	
Average	40.50	155.00	7.30	23.55	278.96	
95 Percentile	96.85	317.35	18.70	48.41	509.30	
98 Percentile	136.42	394.72	19.00	59.60	596.84	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

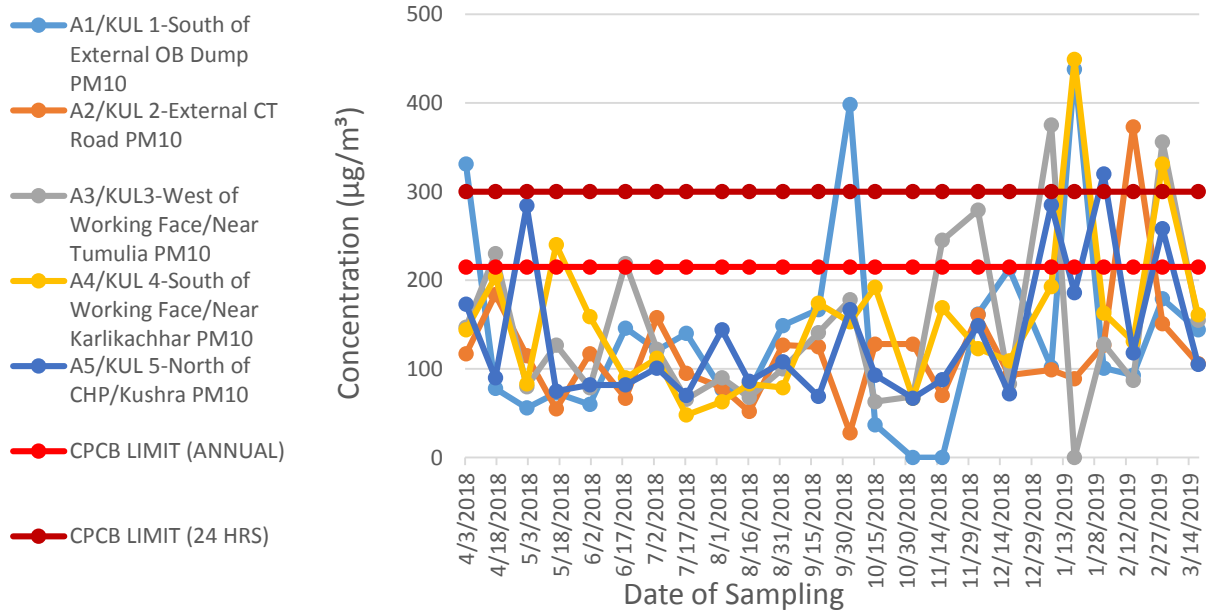
Table :39
Project: Kulda
Monitoring Station: North of CHP/Kushra

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
3-Apr-18	39	173	5.77	11.94	337	
17-Apr-18	28	90	3.03	22	129	
2-May-18	17	284	11.97	10.71	592	
16-May-18	13	75	3.71	<6	270	
1-Jun-18	17	82	2.23	17.16	118	
18-Jun-18	22	82	2.29	<6	162	
3-Jul-18	23	101	2.3	<6	148	
17-Jul-18	11	70	6.34	7.39	96	
3-Aug-18	24	144	1.89	10.36	298	
16-Aug-18	31	86	1.85	6.98	124	
1-Sep-18	22	108	2.06	13.03	137	
18-Sep-18	18	69	4.67	14.07	140	
3-Oct-18	34	167	3.41	8.88	538	
15-Oct-18	14	93	3.64	<6	120	
2-Nov-18	13	67	3.95	21.69	113	
16-Nov-18	23	88	1.24	10.91	142	
3-Dec-18	52	149	10.81	16.24	283	
18-Dec-18	36	72	12.81	24.08	119	
7-Jan-19	54	285	16.65	28.94	336	
18-Jan-19	30	186	11.5	17.17	255	
1-Feb-19	84	320	15.06	44.23	441	
15-Feb-19	44	118	22.58	58.94	214	
1-Mar-19	122	258	10.74	15.68	322	
18-Mar-19	43	105	17.8	21.85	245	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	122	320	22.58	58.94	592	
Minimum	11	67	1	7	96	
Average	33.92	136.33	7.43	19.11	236.63	
95 Percentile	79.50	284.85	17.63	44.97	523.45	
98 Percentile	104.52	303.90	20.38	53.35	567.16	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

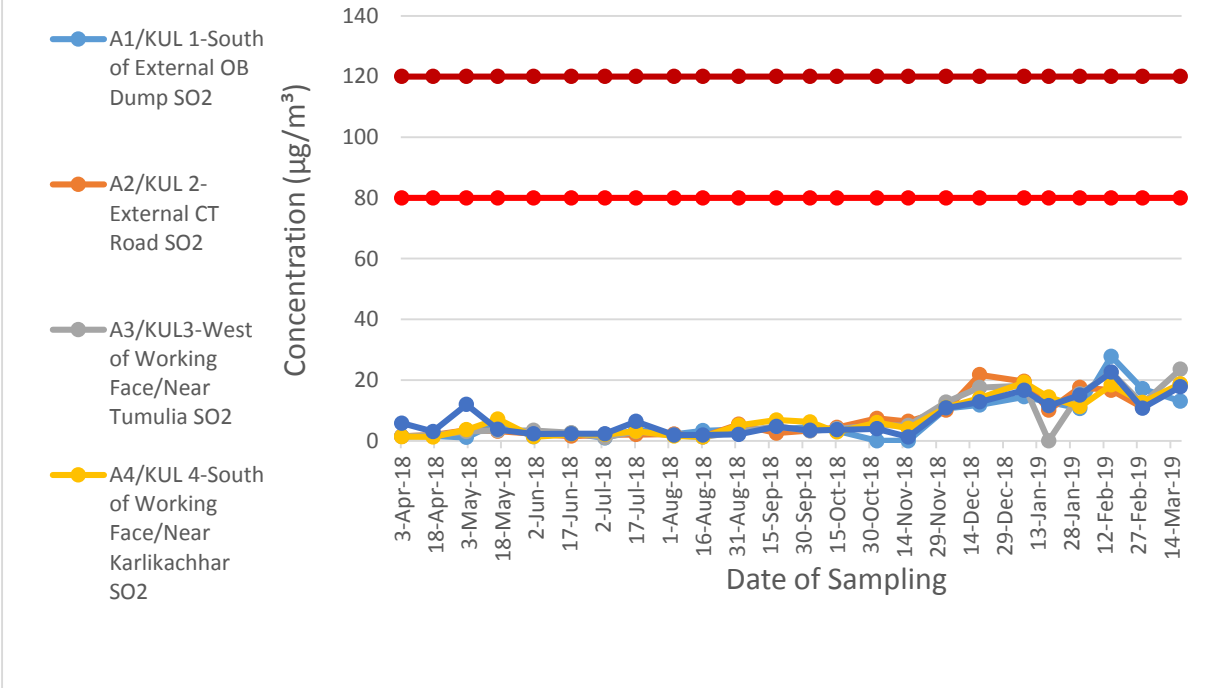
Graph 26: Showing PM_{2.5} for Kulda OCP



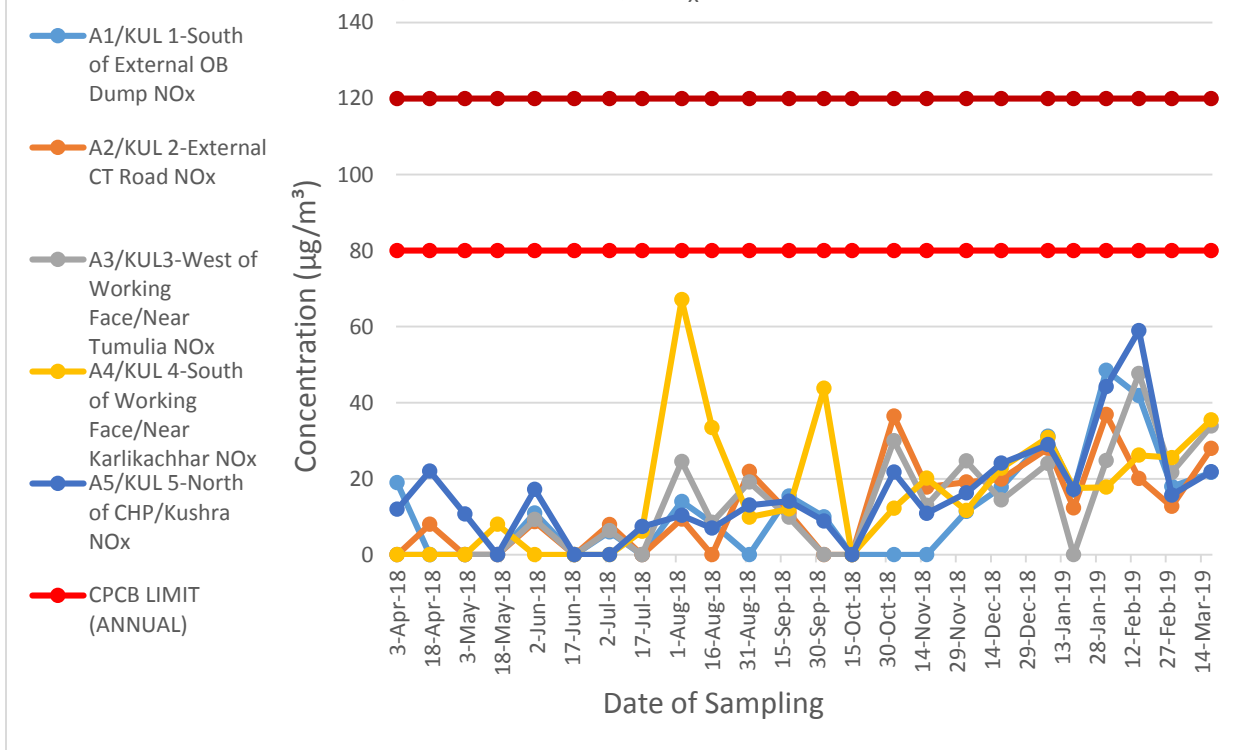
Graph 27: Showing PM₁₀ for Kulda OCP



Graph 28: Showing SO_x for Kulda OCP



Graph 29: Showing NO_x for Kulda OCP



Graph 30: Showing SPM for Kulda OCP

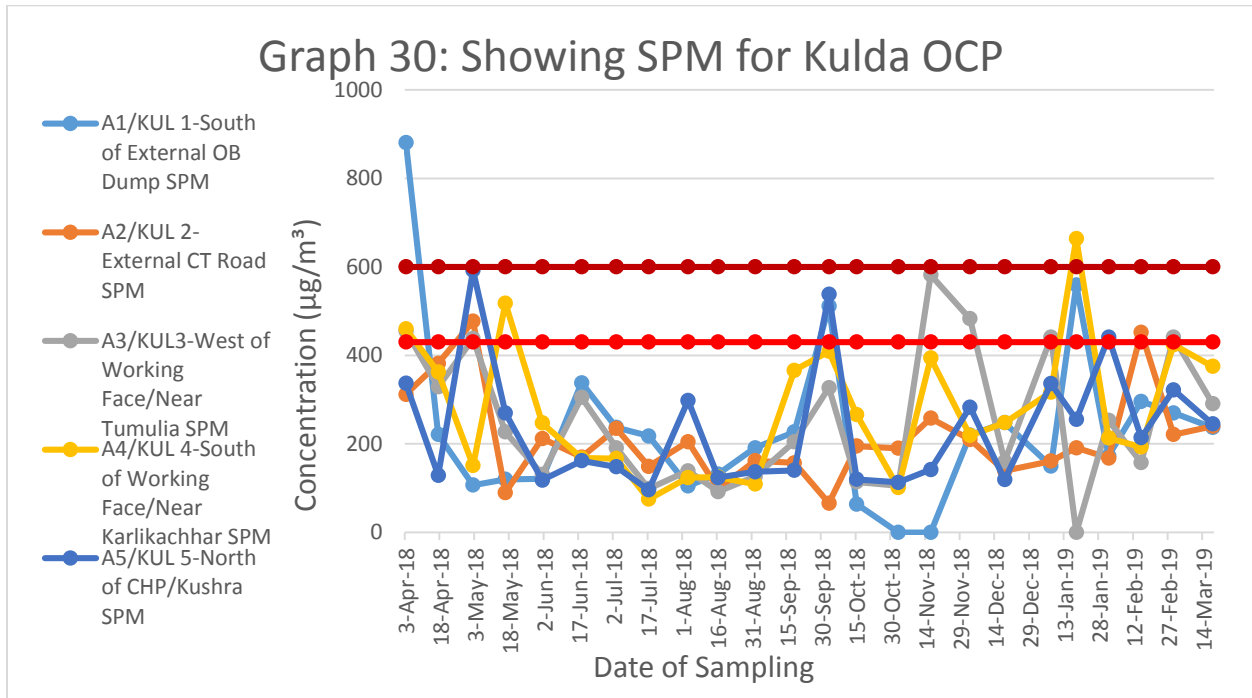


Table :40
Project: Basundhara
Monitoring Station: A1- Near Internal Dump & CT Road of Basundhara (W)
OCP

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
4-Apr-18	-	-	-	-	-	
18-Apr-18	-	-	-	-	-	
3-May-18	14	74	2.35	<6	137	
17-May-18	46	182	3.67	<6	387	
4-Jun-18	31	128	1.6	15.9	188	
19-Jun-18	35	139	2.13	<6	271	
4-Jul-18	17	120	1.51	<6	166	
18-Jul-18	34	97	2.76	<6	135	
4-Aug-18	22	98	2.32	6.69	132	
17-Aug-18	22	101	1.79	10.55	141	
3-Sep-18	21	98	4.98	<6	128	
19-Sep-18	53	137	5.21	13.46	179	
4-Oct-18	58	241	6.4	29	352	
16-Oct-18	101	286	2.12	<6	352	
3-Nov-18	44	168	4.16	<6	301	
16-Nov-18	18	183	1.01	13.15	598	
4-Dec-18	52	487	11.29	24.35	561	
19-Dec-18	26	117	11.3	14.84	200	
10-Jan-19	54	165	16.15	45.77	207	
21-Jan-19	31	339	33.41	23.91	414	
4-Feb-19	33	220	14.88	16.38	276	
16-Feb-19	99	142	12.09	12.68	197	
2-Mar-19	37	236	12.12	41.18	302	
19-Mar-19	79	136	11.9	19.34	275	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m ³
Maximum	101	487	33.41	45.77	598	
Minimum	14	74	1	7	128	
Average	42.14	177.00	7.51	20.51	268.14	
95 Percentile	98.00	336.35	16.09	42.79	553.65	
98 Percentile	100.16	424.84	26.16	44.58	582.46	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :41
Project: Basundhara
Monitoring Station: A2- Near Internal Dump & CT Road of Basundhara (W)
OCF

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
4-Apr-18	24	194	2.77	<6	342	
18-Apr-18	101	487	1.19	<6	607	
3-May-18	20	78	3.63	<6	193	
17-May-18	15	200	3.85	<6	260	
4-Jun-18	11	180	1.84	7.83	227	
19-Jun-18	42	94	1.63	<6	230	
4-Jul-18	18	59	2.35	<6	106	
18-Jul-18	27	88	2.7	<6	132	
4-Aug-18	41	136	2.59	14.2	321	
17-Aug-18	29	71	3.59	15.27	132	
3-Sep-18	24	93	3.85	6.96	157	
19-Sep-18	25	71	5.61	13.23	150	
4-Oct-18	25	170	7.12	<6	191	
16-Oct-18	52	252	2.96	<6	360	
3-Nov-18	25	233	7.95	53.34	329	
17-Nov-18	16	264	2.12	12.99	440	
4-Dec-18	25	211	17.32	10.7	296	
19-Dec-18	14	96	27.73	23.01	144	
10-Jan-19	23	122	17.08	34.12	179	
21-Jan-19	141	246	18.35	25.03	314	
4-Feb-19	28	253	13.16	38.64	302	
16-Feb-19	86	209	11.14	19.62	300	
2-Mar-19	49	277	12.93	26.2	343	
19-Mar-19	38	97	16.57	11.61	212	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	141	487	27.73	53.34	607	
Minimum	11	59	1	7	106	
Average	37.46	174.21	7.92	20.85	261.13	
95 Percentile	98.75	275.05	18.20	43.05	428.00	
98 Percentile	122.60	390.40	23.42	49.22	530.18	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :42
Project: Basundhara
Monitoring Station: Near Ratansara Village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
5-Apr-18	11	360	0.81	<6	740	
19-Apr-18	87	114	0.65	<6	248	
4-May-18	51	94	3.01	<6	136	
18-May-18	15	90	4.67	<6	166	
5-Jun-18	53	144	1.94	14.14	176	
20-Jun-18	43	117	1.84	<6	317	
5-Jul-18	19	83	1.58	<6	123	
19-Jul-18	21	70	2.37	<6	100	
4-Aug-18	29	89	4.23	<6	134	
17-Aug-18	26	136	1.85	10.15	164	
3-Sep-18	46	116	2.76	9.99	151	
19-Sep-18	27	218	2.19	9.62	317	
4-Oct-18	58	271	10.28	18.17	318	
16-Oct-18	71	100	2.34	<6	205	
3-Nov-18	45	172	6.46	23.9	292	
17-Nov-18	36	497	3.21	14.04	875	
4-Dec-18	23	388	10.29	28.38	583	
19-Dec-18	13	43	19.14	19.51	81	
10-Jan-19						
21-Jan-19	76	433	12.61	20.03	533	
4-Feb-19	54	125	14.2	19.9	167	
16-Feb-19	131	495	21.49	31.73	780	
2-Mar-19	39	104	12.16	25.67	249	
19-Mar-19	68	113	14.85	23.51	261	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	131	497	21.49	31.73	875	
Minimum	11	43	1	10	81	
Average	45.30	190.09	6.74	19.20	309.39	
95 Percentile	85.90	488.80	18.71	29.55	776.00	
98 Percentile	111.64	496.12	20.46	30.86	833.20	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :43
Project: Basundhara
Monitoring Station: Near Sardega Railway Siding

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
5-Apr-18	38	78	0.77	<6	178	
19-Apr-18	50	73	1.8	<6	208	
4-May-18	11	95	4.84	<6	259	
18-May-18	19	75	3.91	<6	123	
5-Jun-18	45	270	2.79	<6	369	
20-Jun-18	18	95	3.88	6.49	286	
5-Jul-18	19	136	1.98	<6	215	
19-Jul-18	55	121	2.32	<6	184	
6-Aug-18	18	61	2.23	10.97	111	
20-Aug-18	16	62	3.39	47.19	90	
4-Sep-18	51	146	11.18	7.4	176	
20-Sep-18	17	80	8.59	23.12	137	
5-Oct-18	53	152	2.71	26.35	193	
22-Oct-18	11	88	3.23	<6	117	
5-Nov-18	42	140	5.7	14.01	237	
19-Nov-18	13	184	1.91	13.6	369	
5-Dec-18	26	231	10.46	21.33	332	
20-Dec-18	30	220	18.15	20.98	268	
10-Jan-19	43	121	15.4	15.86	182	
22-Jan-19	89	282	10.63	17.03	318	
5-Feb-19	30	200	10.9	27.6	506	
18-Feb-19	38	168	13.36	21.01	232	
4-Mar-19	86	153	10.38	34.17	413	
20-Mar-19	45	204	23.04	35.74	364	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	89	282	23.04	47.19	506	
Minimum	11	61	1	6	90	
Average	35.96	143.13	7.23	21.43	244.46	
95 Percentile	81.35	264.15	17.74	38.60	406.40	
98 Percentile	87.62	276.48	20.79	43.76	463.22	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

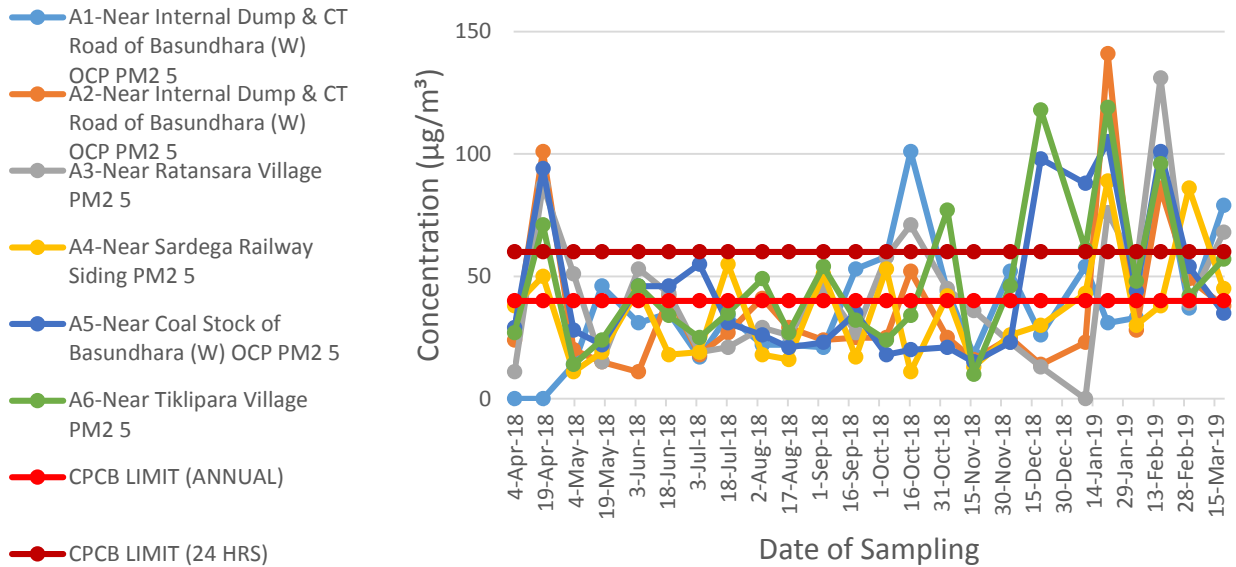
Table :44
Project: Basundhara
Monitoring Station: Near Coal Stock of Basundhara (W) OCP

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
4-Apr-18	29	175	0.9	9.15	345	
19-Apr-18	94	208	1.38	<6	341	
4-May-18	28	100	3.43	<6	155	
18-May-18	22	120	3.28	<6	212	
6-Jun-18	46	145	1.54	11.82	257	
20-Jun-18	46	131	1.49	<6	235	
5-Jul-18	55	210	2.38	<6	319	
19-Jul-18	31	75	3.11	<6	110	
6-Aug-18	26	73	1.68	27.91	133	
20-Aug-18	21	58	5.71	38.75	133	
4-Sep-18	23	167	16.36	7.39	208	
20-Sep-18	35	153	4.75	11.97	228	
5-Oct-18	18	205	3.08	<6	221	
22-Oct-18	20	191	2.19	<6	220	
5-Nov-18	21	62	3.45	18.98	131	
19-Nov-18	15	377	1.22	7.2	591	
5-Dec-18	23	290	10.41	40.08	338	
20-Dec-18	98	148	10.56	12.66	182	
10-Jan-19	88	178	10.91	29.04	238	
22-Jan-19	105	246	13.06	15.86	402	
5-Feb-19	44	210	12.83	52.77	286	
18-Feb-19	101	154	12.81	21.5	199	
4-Mar-19	54	211	12.52	35.51	353	
20-Mar-19	35	102	12.32	10.08	203	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	105	377	16.36	52.77	591	
Minimum	15	58	1	7	110	
Average	44.92	166.21	6.31	21.92	251.67	
95 Percentile	100.55	283.40	13.03	43.25	394.65	
98 Percentile	103.16	336.98	14.84	48.96	504.06	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

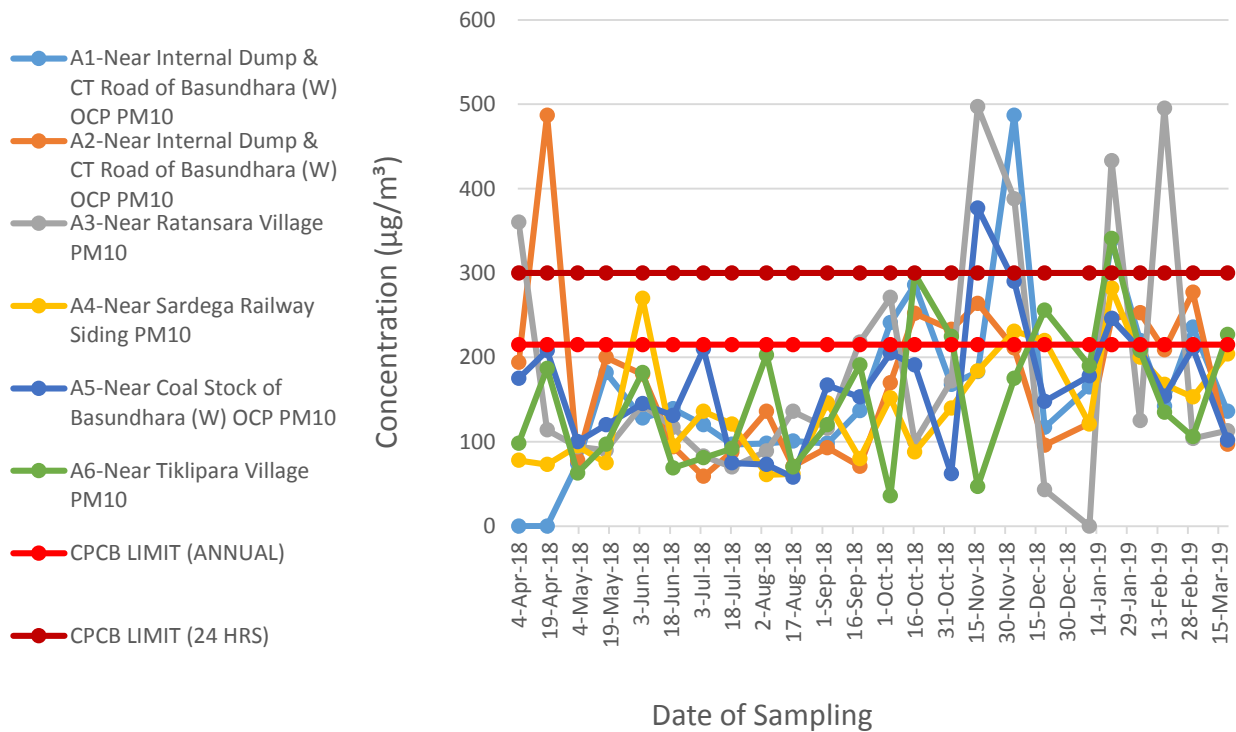
Table :45
Project: Basundhara
Monitoring Station: -Near Tiklipara Village

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
4-Apr-18	27	98	0.96		415	
18-Apr-18	71	187	0.99	<6	349	
3-May-18	14	63	1.89	<6	106	
17-May-18	24	97	8.73	<6	128	
4-Jun-18	46	182	1.36	9.94	286	
19-Jun-18	34	69	2.36	6.45	163	
4-Jul-18	25	81	2.27	<6	114	
18-Jul-18	35	92	2.39	6.29	167	
4-Aug-18	49	203	3.65	<6	247	
17-Aug-18	27	70	1.17	16.11	128	
3-Sep-18	54	120	10.8	11.99	183	
19-Sep-18	32	191	1.87	6.34	230	
4-Oct-18	24	36	5.49	20.91	85	
16-Oct-18	34	299	1.74	<6	389	
3-Nov-18	77	225	7.55	7.59	282	
17-Nov-18	10	47	4.13	17.75	293	
4-Dec-18	46	175	10.34	15.37	224	
19-Dec-18	118	256	21.29	23.92	315	
10-Jan-19	61	190	11.12	15.93	243	
21-Jan-19	119	341	14.66	13.21	421	
4-Feb-19	48	208	16.91	45.89	278	
16-Feb-19	96	135	14.39	22.86	180	
2-Mar-19	42	106	19.69	29.78	318	
20-Mar-19	57	227	13.25	12.58	297	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	119	341	21.29	45.89	421	
Minimum	10	36	1	6	85	
Average	48.75	154.08	7.46	16.64	243.38	
95 Percentile	114.70	292.55	19.27	33.00	411.10	
98 Percentile	118.54	321.68	20.55	40.73	418.24	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

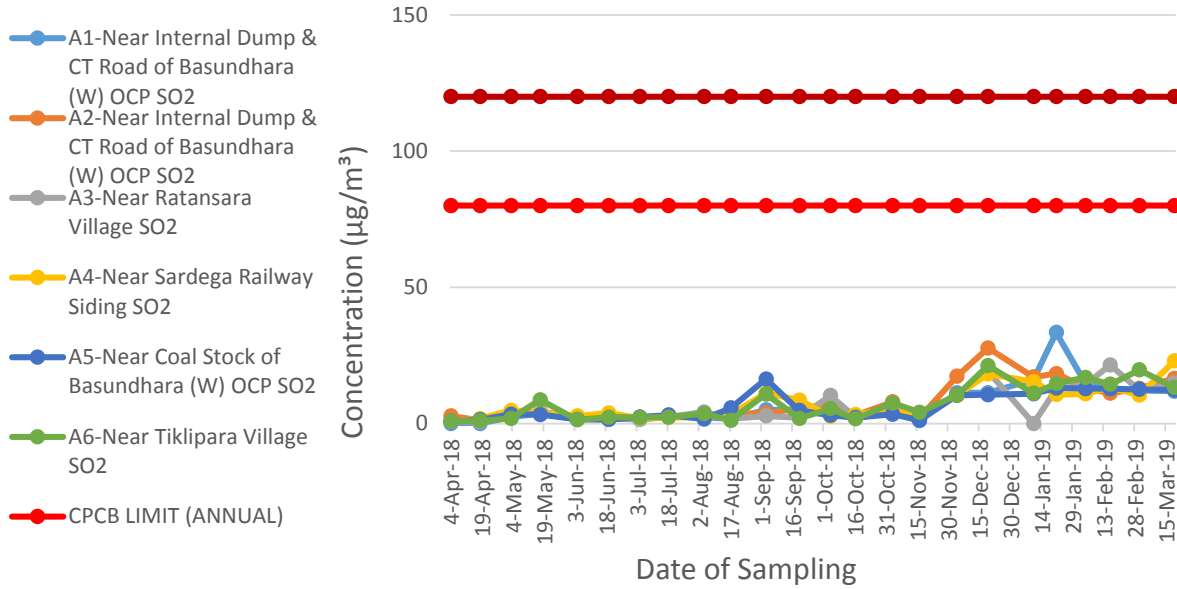
Graph 31: Showing PM_{2.5} for Basundhara OCP



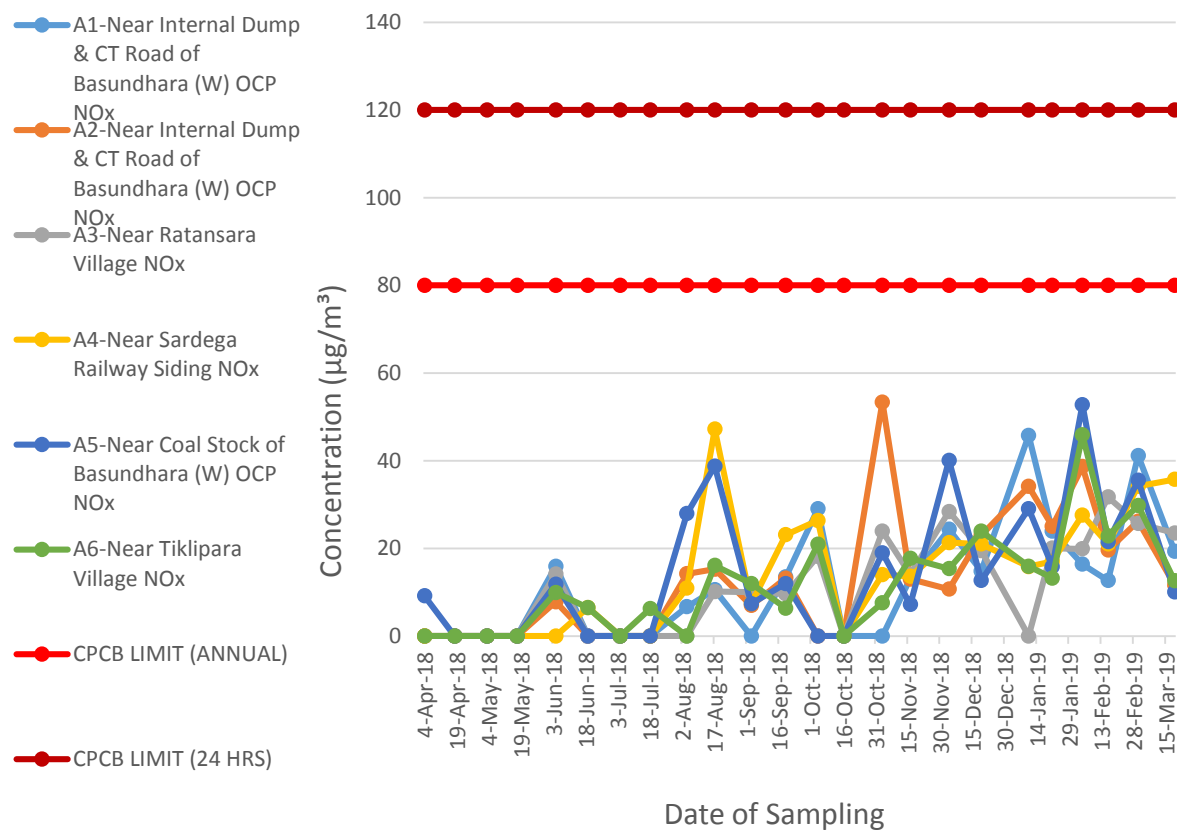
Graph 32: Showing PM₁₀ for Basundhara OCP



Graph 33: Showing SO_x for Basundhara OCP



Graph 34: Showing NO_x for Basundhara OCP



Graph 35: Showing SPM for Basundhara OCP

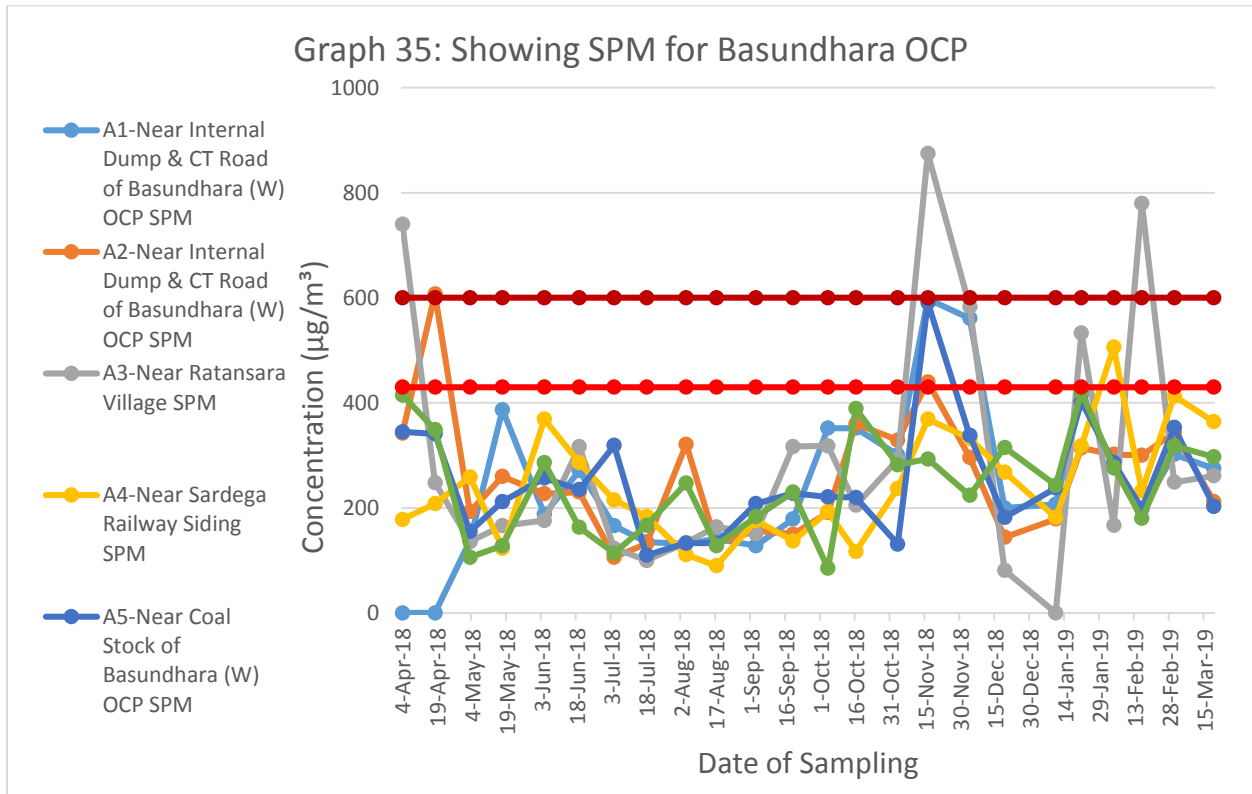


Table :46
Project: Orient
Monitoring Station: - Near Adarsh Nagar Colony

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
6-Apr-18	24	195	0.98	-	362	
20-Apr-18	37	54	1.51	6	271	
7-May-18	13	93	4.34	<6	285	
21-May-18	25	165	3.91	<6	269	
6-Jun-18	32	54	1.52	15.02	113	
21-Jun-18	23	59	3.35	<6	117	
6-Jul-18	17	106	2.09	<6	181	
20-Jul-18	23	71	1.52	<6	108	
7-Aug-18	20	73	2	9.3	125	
21-Aug-18	37	108	1.96	<6	152	
5-Sep-18	33	78	1.41	7.84	98	
21-Sep-18	15	95	3.44	<6	114	
8-Oct-18	38	134	2.76	<6	171	
24-Oct-18	17	66	1.83	<6	100	
6-Nov-18	29	367	5.22	19.41	481	
20-Nov-18	17	228	3.28	22.93	395	
6-Dec-18	105	255	12.24	13.58	283	
21-Dec-18	88	273	11.43	33.62	283	
12-Jan-19	19	59	22.08	18.44	98	
23-Jan-19	59	182	10.55	10.47	262	
6-Feb-19	51	294	11.22	15.7	350	
19-Feb-19	106	185	12.55	19.48	394	
5-Mar-19	47	139	13.98	41.52	235	
23-Mar-19	55	129	13.9	31.43	242	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	106	367	22.08	41.52	481	
Minimum	13	54	1	6	98	
Average	38.75	144.25	6.21	18.91	228.71	
95 Percentile	102.45	290.85	13.97	36.39	394.85	
98 Percentile	105.54	333.42	18.35	39.47	441.44	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :47
Project: Orient
Monitoring Station: - Orient Mine No.2

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
6-Apr-18	83	107	0.94	<6	215	
20-Apr-18	67	146	1.07	<6	377	
7-May-18	26	71	6.72	<6	154	
21-May-18	37	153	5.13	7	368	
6-Jun-18	51	136	1.39	6.15	175	
21-Jun-18	35	98	2.77	7	368	
6-Jul-18	31	164	3.19	6.94	235	
7-Aug-18	18	63	2.66	11.13	79	
21-Aug-18	11	76	2.31	17.76	128	
5-Sep-18	48	114	6.96	6.86	141	
21-Sep-18	25	85	4.37	<6	110	
8-Oct-18	22	158	2.32	<6	560	
23-Oct-18	32	230	2.46	8.63	253	
6-Nov-18	32	181	3.18	15.23	232	
20-Nov-18	68	163	2.18	30.67	230	
6-Dec-18	96	264	10.38	14.16	354	
21-Dec-18	59	195	11.81	28.07	251	
12-Jan-19	157	373	13.47	18.66	422	
23-Jan-19	58	176	10.65	17.37	254	
6-Feb-19	73	282	10.02	17.65	378	
19-Feb-19	72	269	10.77	12.86	321	
5-Mar-19	102	172	12.11	43.53	279	
25-Mar-19	98	152	13.38	35.21	238	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	157	373	13.47	43.53	560	
Minimum	11	63	1	6	79	
Average	56.57	166.43	6.10	16.94	266.17	
95 Percentile	101.60	280.70	13.25	36.46	417.60	
98 Percentile	132.80	332.96	13.43	40.70	499.28	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :48
Project: Orient
Monitoring Station: - Orient Mine No. 3

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
5-Apr-18	40	62	2.57	<6	165	
19-Apr-18	76	284	1.43	<6	513	
4-May-18	12	171	3.08	<6	212	
18-May-18	25	81	2.97	<6	137	
5-Jun-18	58	155	3.5	24.54	233	
28-Jun-18	16	57	2.37	<6	89	
5-Jul-18	34	93	2.09	<6	133	
6-Aug-18	17	85	1.26	7.15	118	
20-Aug-18	22	63	1.72	<6	83	
4-Sep-18	53	131	3.98	<6	186	
20-Sep-18	22	149	2.79	<6	210	
5-Oct-18	60	187	2.51	<6	214	
22-Oct-18	34	110	2.08	<6	128	
5-Nov-18	17	129	4.53	20.93	342	
19-Nov-18	27	148	1.92	9.57	278	
5-Dec-18	91	267	10.2	11.88	407	
20-Dec-18	43	229	27.42	12.33	264	
11-Jan-19	176	289	11.6	16.38	386	
22-Jan-19	57	299	10.57	19.51	420	
5-Feb-19	105	325	10.19	12.74	372	
18-Feb-19	53	179	11.23	11.78	302	
4-Mar-19	33	118	11.53	19.71	182	
23-Mar-19	31	156	12.17	11.51	190	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m ³
Maximum	176	325	27.42	24.54	513	
Minimum	12	57	1	7	83	
Average	47.91	163.78	6.25	14.84	241.91	
95 Percentile	103.60	298.00	12.11	22.55	418.70	
98 Percentile	144.76	313.56	20.71	23.75	472.08	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

Table :49
Project: Orient
Monitoring Station: - Orient Mine No. 4

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
5-Apr-18	100	68	1.85		126	
19-Apr-18	68	249	1.5	<6	348	
4-May-18	31	189	3.16	<6	246	
18-May-18	11	132	4.96	<6	283	
5-Jun-18	24	35	2.4	<6	40	
20-Jun-18	29	161	1.74	<6	307	
5-Jul-18	41	135	1.45	<6	196	
6-Aug-18	26	64	1.82	7.58	111	
20-Aug-18	23	80	1.65	32.07	122	
4-Sep-18	44	113	9.26	6.99	148	
20-Sep-18	17	68	2.39	9.8	110	
5-Oct-18	35	250	2.34	<6	287	
22-Oct-18	22	277	3.75	7.97	304	
5-Nov-18	53	175	3.09	29.48	211	
19-Nov-18	99	184	3.03	15.5	279	
5-Dec-18	55	162	11.25	10.34	267	
20-Dec-18	39	115	14.08	13.68	172	
11-Jan-19	18	374	10.96	29.16	432	
22-Jan-19	109	157	13.6	28.02	477	
5-Feb-19	56	248	14.37	26.82	283	
18-Feb-19	98	136	10.51	16.53	155	
4-Mar-19	94	154	15.23	36	222	
20-Mar-19	37	135	10.47	17.82	219	
Date of Sampling	PM_{2.5}	PM₁₀	SO₂	NO_x	SPM	All values in µg/m³
Maximum	109	374	15.23	36	477	
Minimum	11	35	1	7	40	
Average	49.09	159.17	6.30	19.18	232.39	
95 Percentile	99.90	274.30	14.34	33.25	423.60	
98 Percentile	105.04	331.32	14.85	34.90	457.20	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

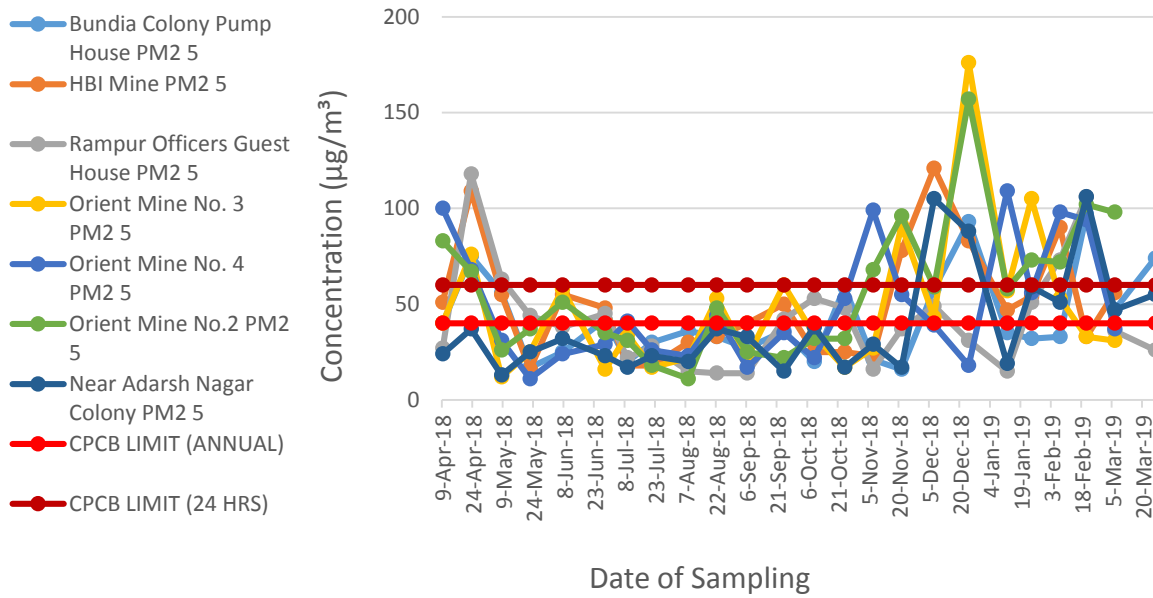
Table :50
Project: Orient
Monitoring Station: - Bundia Colony Pump House

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
9-Apr-18	40	110	1.61	<6	271	
23-Apr-18	75	115	3.64	8	314	
8-May-18	56	288	3.44	<6	462	
22-May-18	17	105	5.94	<6	183	
7-Jun-18	25	126	0.88	10.43	154	
28-Jun-18	42	107	4.82	<6	189	
9-Jul-18	20	107	1.97	<6	179	
21-Jul-18	30	64	2.23	<6	97	
8-Aug-18	36	68	2.11	9.63	144	
22-Aug-18	33	94	1.89	10.9	122	
6-Sep-18	27	123	2.86	<6	151	
24-Sep-18	36	127	4.56	<6	218	
9-Oct-18	20	40	2.59	21.55	71	
24-Oct-18	59	228	3.09	<6	429	
7-Nov-18	21	73	2.99	20.28	97	
21-Nov-18	16	50	2.54	13.81	89	
7-Dec-18	58	209	12.07	10.79	289	
24-Dec-18	93	298	29.14	19.17	324	
12-Jan-19	35	81	16.09	21.15	144	
24-Jan-19	32	292	11.08	25	391	
7-Feb-19	33	286	10.99	16.13	439	
20-Feb-19	97	228	10.52	16.93	297	
6-Mar-19	47	216	10.18	54.74	584	
26-Mar-19	74	106	11.82	29.83	194	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	97	298	29.14	54.74	584	
Minimum	16	40	1	8	71	
Average	42.58	147.54	6.63	19.22	243.00	
95 Percentile	90.30	291.40	15.49	37.30	458.55	
98 Percentile	95.16	295.24	23.14	47.77	527.88	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

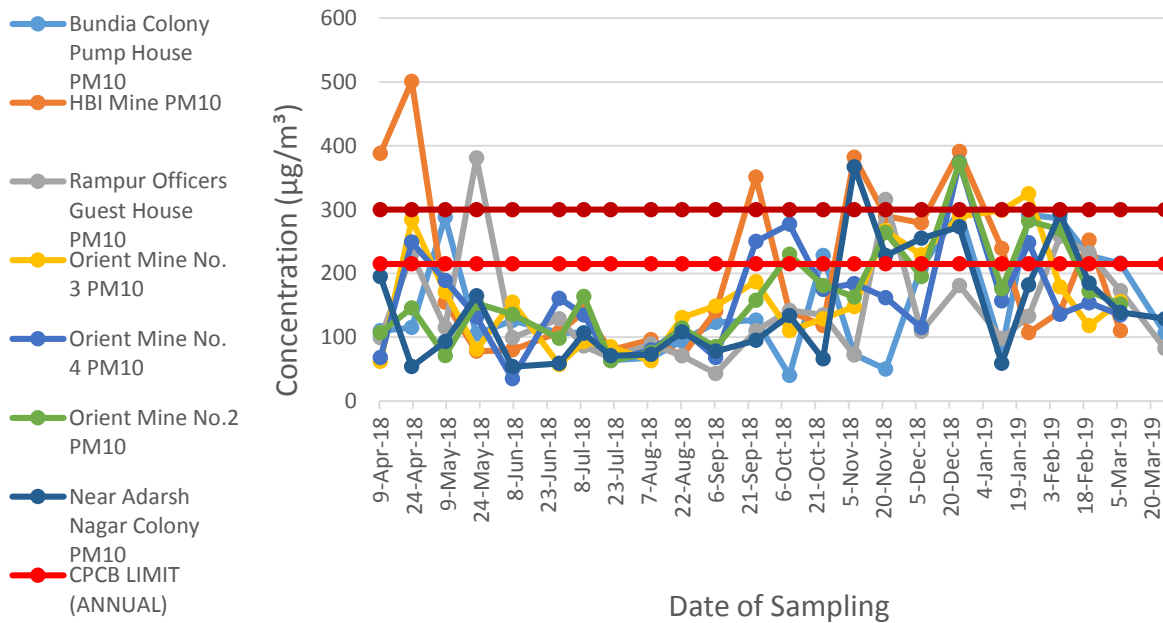
Table :51
Project: Orient
Monitoring Station: - Rampur Rampur Officers Guest House

Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	
9-Apr-18	27	99	0.89	8.91	244	
23-Apr-18	118	230	1.16	27	397	
8-May-18	63	115	3.75	<6	154	
22-May-18	44	381	3.03	<6	595	
7-Jun-18	38	99	2.13	14.81	129	
23-Jun-18	45	129	2.57	6.09	226	
9-Jul-18	22	86	1.7	6	160	
21-Jul-18	28	68	3.25	<6	104	
8-Aug-18	15	89	1.32	12.72	136	
22-Aug-18	14	71	4.77	<6	108	
6-Sep-18	14	43	11.18	7.27	56	
24-Sep-18	42	110	4.02	6.27	164	
9-Oct-18	53	142	1.77	<6	262	
24-Oct-18	48	135	1.83	10.4	221	
7-Nov-18	16	72	3.4	41.58	124	
21-Nov-18	37	316	3.19	14.67	364	
7-Dec-18	49	109	17.76	18.74	134	
24-Dec-18	31	181	36	29.87	220	
13-Jan-19	15	98	16.07	10.82	158	
24-Jan-19	51	133	13.08	14.64	450	
7-Feb-19	73	258	11.86	20.28	356	
20-Feb-19	106	232	11.18	17.84	252	
6-Mar-19	36	173	11.88	40.26	579	
25-Mar-19	26	82	10.57	22.14	136	
Date of Sampling	PM _{2.5}	PM ₁₀	SO ₂	NO _x	SPM	All values in µg/m3
Maximum	118	381	36	41.58	584	
Minimum	14	43	1	6	71	
Average	42.13	143.79	7.43	17.38	243.00	
95 Percentile	101.05	307.30	17.51	40.39	458.55	
98 Percentile	112.48	351.10	27.61	41.10	527.88	
Standard (24 Hrs)	60	300	120	120	600	
Standard (Annual)	40	215	80	80	430	

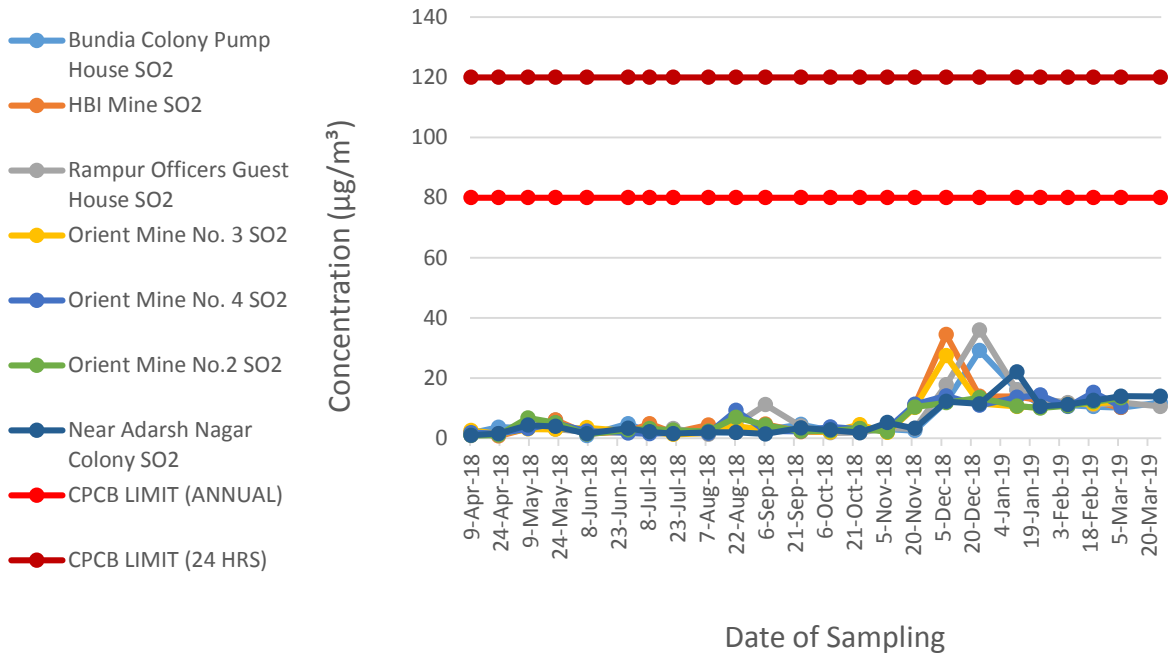
Graph 36: Showing PM_{2.5} for Orient



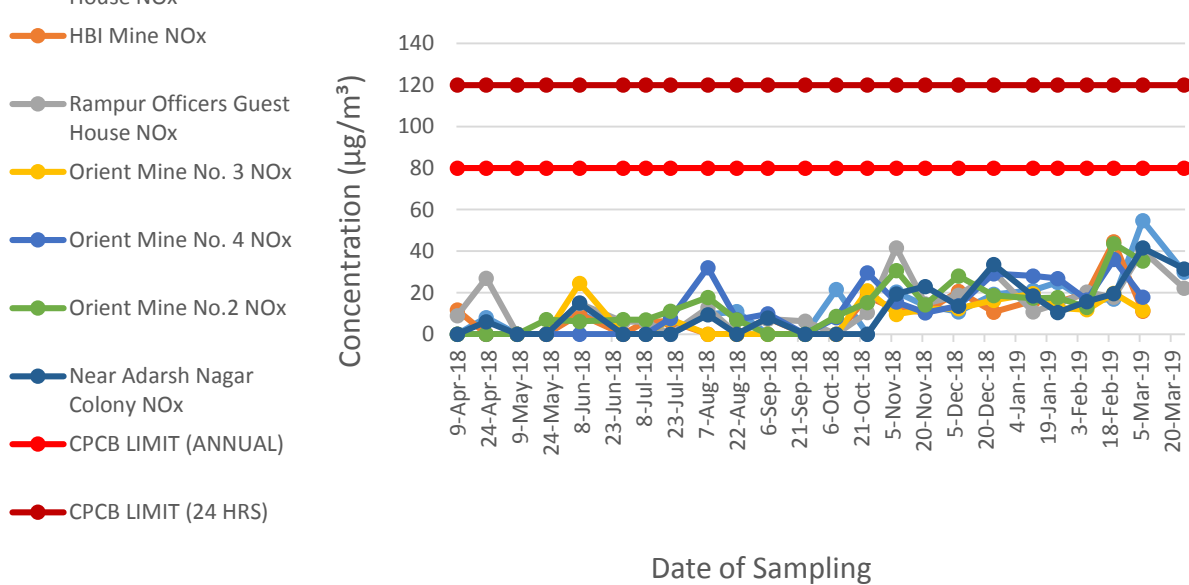
Graph 37: Showing PM₁₀ for Orient



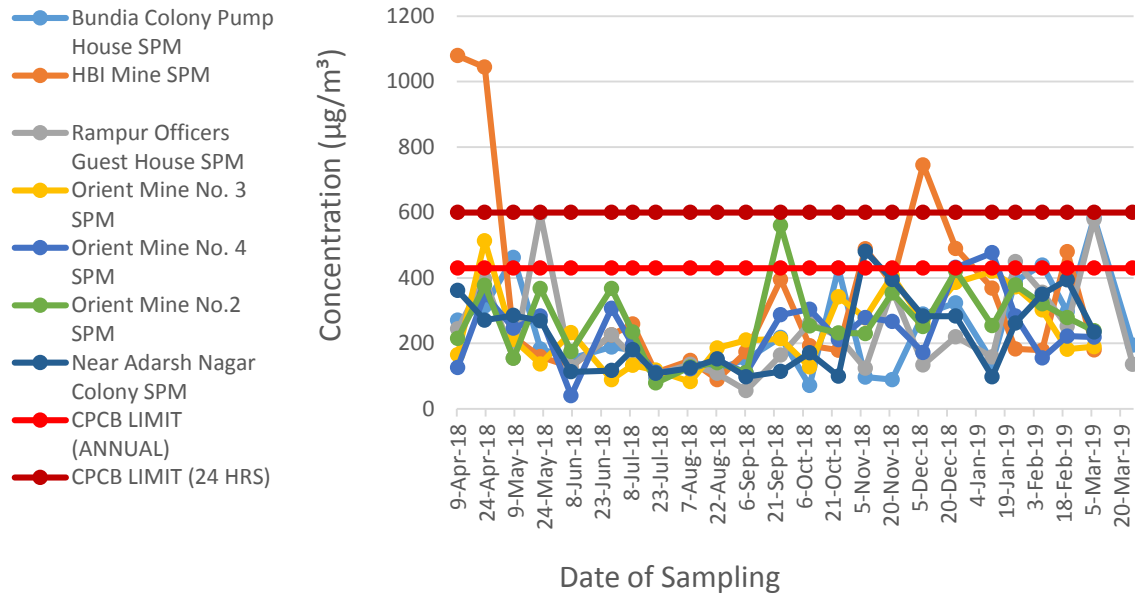
Graph 38: Showing SO_x for Orient



Graph 39: Showing NO_x for Orient



Graph 40: Showing SPM for Orient



TABLES FOR HEAVY METALS IN AIR

Table :52
Project: Lajkura OCP

Project	Lajkura			Standard
Monitoring Station	Near Bhaghmara Nala	Near South Coal Stock	Near Project Office	
Date of sampling	05-Sep-18	05-Sep-18	05-Sep-18	
Arsenic (As) (ng/m³)	<1.0	<1.0	<1.0	6.0(Annual)
Nickel (Ni) (ng/m³)	<1.0	<1.0	<1.0	20(Annual)
Chromium (Cr) (µg/m³)	<0.1	<0.1	<0.1	
Cadmium (Cd) (µg/m³)	<0.1	<0.1	<0.1	

Table :53
Project: Samleswari OCP

Project	Samleswari					Standard
Monitoring Station	Lajkura Village	Near Kudopali	Near Re-Joice Club in Hill Top Colony	Roop of Project Office SOCP	Jamkani Village	
Date of sampling	07-Sep-18	07-Sep-18	06-Sep-18	06-Sep-18	07-Sep-18	
Arsenic (As) (ng/m³)	<1.0	<1.0	<1.0	<1.0	<1.0	6.0(Annual)
Nickel (Ni) (ng/m³)	<1.0	<1.0	8.23	<1.0	<1.0	20(Annual)
Chromium (Cr) (µg/m³)	<0.1	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd) (µg/m³)	<0.1	<0.1	<0.1	<0.1	<0.1	

Table :54
Project: Lakhanpur OCP

Project	Lakhanpur		Standard
	Near East of Quarry 1	South of Quarry 5	
Monitoring Station			
Date of sampling	08-Sep-18	08-Sep-18	
Arsenic (As) (ng/m ³)	<1.0	<1.0	6.0(Annual)
Nickel (Ni) (ng/m ³)	9.51	<1.0	20(Annual)
Chromium (Cr) (µg/m ³)	<0.1	<0.1	
Cadmium (Cd) (µg/m ³)	<0.1	<0.1	

Table :55
Project: Belpahar OCP

Project	Belpahar		Standard
	South West of Mine	Near Quarry 5	
Monitoring Station			
Date of sampling	10-Sep-18	10-Sep-18	
Arsenic (As) (ng/m ³)	<1.0	<1.0	6.0(Annual)
Nickel (Ni) (ng/m ³)	<1.0	9.22	20(Annual)
Chromium (Cr) (µg/m ³)	<0.1	<0.1	
Cadmium (Cd) (µg/m ³)	<0.1	<0.1	

Table :56
Project: Basundhara OCP

Project	Basundhara OCP						Standard
Monitoring Station	A 1- Near Internal Dump & CT Road of Basundhara (w)OCP/ Siarmal	A 2- Near Internal Dump & CT Road of Basundhara (w)OCP/ Gopalpur	A 3 Near Ratansara Village	A4-Near Sardega Railway Siding	A 5- Near Coal Stock of Basundhara (w) OCP	A6-Near Tiklipara Village	
Date of sampling	03-Sep-18	03-Sep-18	03-Sep-18	04-Sep-18	04-Sep-18	03-Sep-18	
Arsenic (As) (ng/m ³)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.0 (Annual)
Nickel (Ni) (ng/m ³)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	20 (Annual)
Chromium (Cr) (µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd) (µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

Table :57
Project: Orient

Area	Orient						Standard
Monitoring Station	Near Adarsh Nagar Colony	Orient Mine No 3	Orient Mine No 4	HBI Mine	Bundia Colony Pump House	Rampur Office Guest House	
Date of sampling	05-Sep-18	04-Sep-18	04-Sep-18	06-Sep-18	06-Sep-18	06-Sep-18	
Arsenic (As) (ng/m ³)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.0 (Annual)
Nickel (Ni) (ng/m ³)	<1.0	<1.0	<1.0	<1.0	24.13	<1.0	20 (Annual)
Chromium (Cr) (µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Cadmium (Cd) (µg/m ³)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

TABLES FOR NOISE LEVEL MONITORING DATA

Table :58

Project: Samleswari OCP

Monitoring Station: Roof of Project office, SOCP

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	58.3	61.4
24-Apr-18	62	64.1
7-May-18	70.3	63.7
21-May-18	72.1	62.9
6-Jun-18	68.4	65
26-Jun-18	67.1	65.2
10-Jul-18	66.8	59.4
23-Jul-18	66.7	63.7
10-Aug-18	67.8	66.9
23-Aug-18	66	64.9
9-Sep-18	65.4	63.7
24-Sep-18	65.6	62.4
10-Oct-18	65.3	63.9
25-Oct-18	66.3	60.2
10-Nov-18	67.5	65.3
22-Nov-18	66.4	63.8
8-Dec-18	70.6	63.7
26-Dec-18	65.5	62.8
13-Jan-19	66.4	62.9
28-Jan-19	66.2	61.8
8-Feb-19	64.5	62.8
26-Feb-19	65.6	63.2
7-Mar-19	66.9	63.8
21-Mar-19	66.9	63.2
Brief Statistic (in dB)	Day	Night
Minimum	58.3	59.4
Maximum	72.1	66.9
Mean	66.44	63.36
Noise Standard	75	70

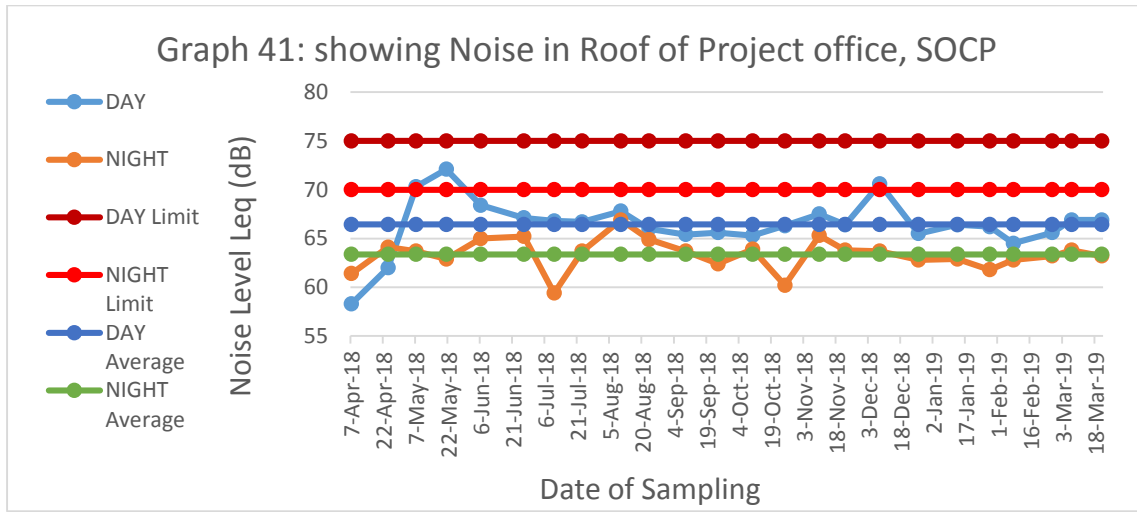


Table :59
Project: Samleswari OCP
Monitoring Station: Near Re-Joice Club in Hill top Colony

DATE OF SAMPLING	DAY (dB)	NIGHT(dB)
7-Apr-18	62.2	62.7
24-Apr-18	63.4	63.5
7-May-18	60.5	59.8
21-May-18	73.4	65.4
6-Jun-18	67.9	63.7
26-Jun-18	65.7	61.6
10-Jul-18	67.3	61.6
23-Jul-18	68.4	64.1
10-Aug-18	65.9	62.1
23-Aug-18	63.2	62.4
9-Sep-18	67.3	64.1
24-Sep-18	64.9	60.6
10-Oct-18	67.7	65
25-Oct-18	67.5	62.5
10-Nov-18	66.8	61.4
22-Nov-18	67.3	60.9
8-Dec-18	60.2	59.8
26-Dec-18	66.6	64.2
13-Jan-19	67.7	64.3
28-Jan-19	67.6	63.4
8-Feb-19	66.4	64.3
26-Feb-19	64.8	61.5
7-Mar-19	64.7	61.2
21-Mar-19	67.2	61.7
Brief Statistic (in dB)	Day	Night
Minimum	60.2	59.8
Maximum	73.4	65.4
Mean	66.03	62.58
Noise Standard	75	70

Graph 42: showing Noise in Near Re-Joice Club in Hiltop Colony

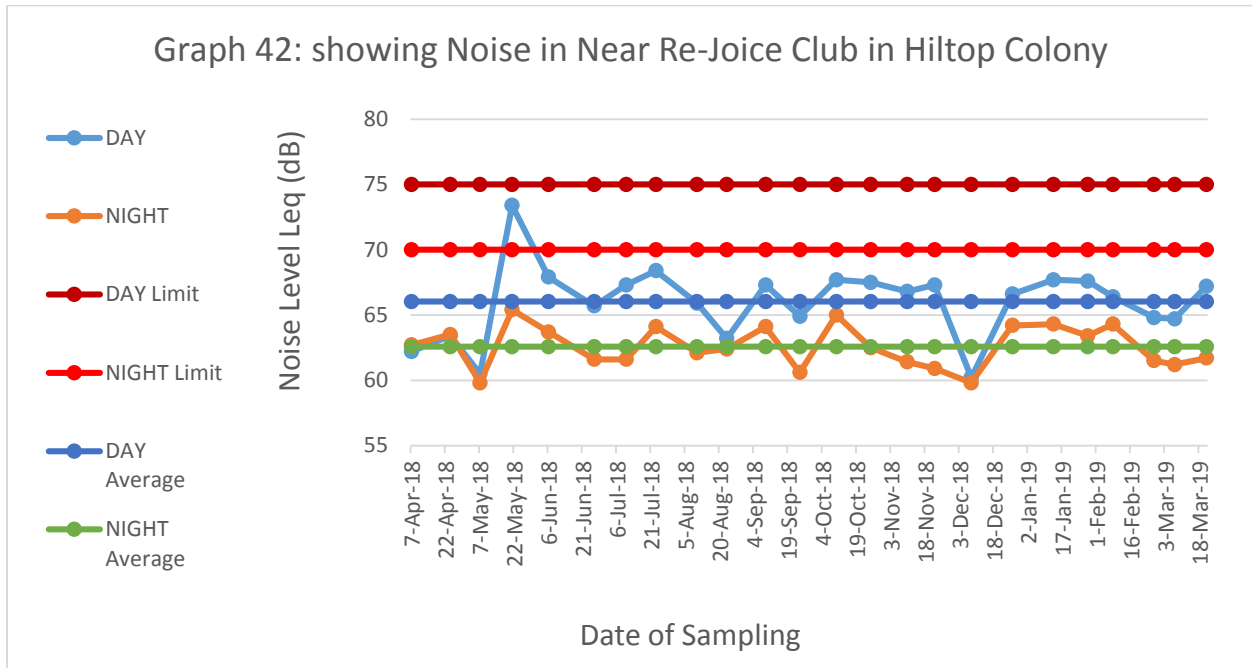


Table :60
Project: Samleswari OCP
Monitoring Station: Near Kudopalli

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	67.2	53.2
24-Apr-18	62.5	67
7-May-18	60.8	63.3
21-May-18	62.3	59.7
6-Jun-18	63.9	57.4
26-Jun-18	61.3	57.6
10-Jul-18	64.2	58.2
23-Jul-18	64.3	61.6
10-Aug-18	63.1	59.8
23-Aug-18	67.3	63.2
9-Sep-18	63.2	57.5
24-Sep-18	62.7	58.4
10-Oct-18	62.3	59.5
25-Oct-18	62.7	59.1
10-Nov-18	63.4	62.7
22-Nov-18	62.9	60.8
8-Dec-18	60.6	63.6
26-Dec-18	63.3	59.4
13-Jan-19	64.2	60.8
28-Jan-19	61.2	58.7
8-Feb-19	62.6	58.4
26-Feb-19	62.3	60.7
7-Mar-19	66.2	62.8
21-Mar-19	61.7	60.3
Brief Statistic (in dB)	Day	Night
Minimum	60.60	53.20
Maximum	67.30	67.00
Mean	63.18	60.15
Noise Standard	75	70

Graph 43: showing Noise in Near Kudopalli

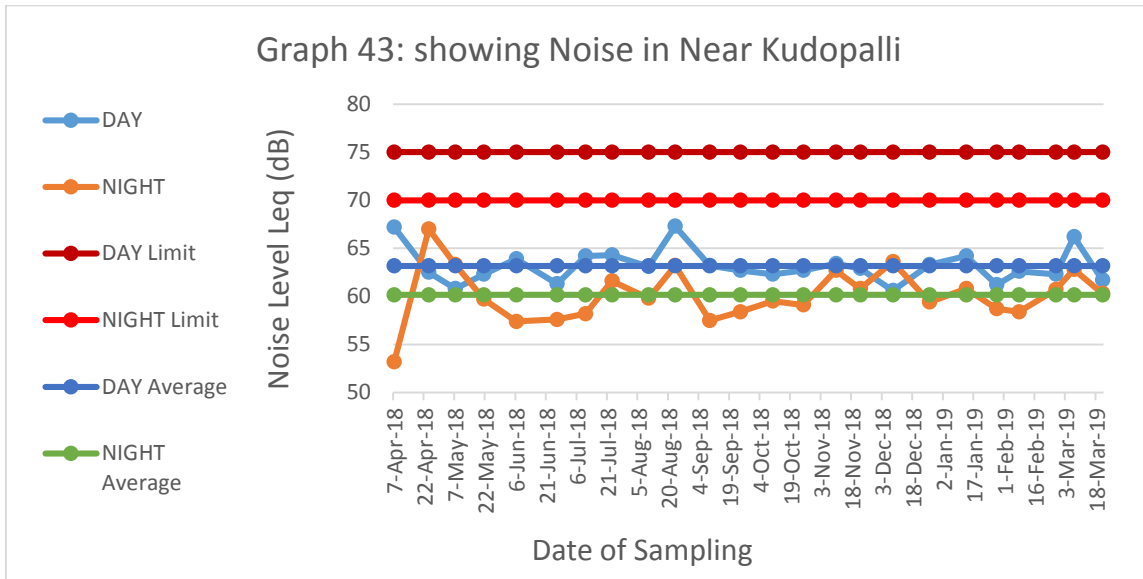


Table :61
Project: Samleswari OCP
Monitoring Station: Lajkura Village

DATE OF SAMPLING	DAY (dB)	NIGHT (dB)
7-Apr-18	68.2	66.4
24-Apr-18	60.2	63.6
7-May-18	65.9	63.2
21-May-18	71.5	65.5
6-Jun-18	65.4	61.1
26-Jun-18	63.3	58.3
10-Jul-18	63.9	57.7
23-Jul-18	65.4	62.3
10-Aug-18	63.7	58.3
23-Aug-18	66.2	65.8
9-Sep-18	63.4	59.8
24-Sep-18	63.7	59.8
10-Oct-18	64.4	57.6
25-Oct-18	63.7	57.1
10-Nov-18	65.9	64.3
22-Nov-18	63.8	58.8
8-Dec-18	66.2	63.2
26-Dec-18	64.4	57.5
13-Jan-19	66.8	62.1
28-Jan-19	64.6	68.1
8-Feb-19	64.4	57.3
26-Feb-19	64.9	61.4
7-Mar-19	64.3	60.3
21-Mar-19	63.7	55.8
Brief Statistic (in dB)	Day	Night
Minimum	60.2	55.8
Maximum	71.5	68.1
Mean	64.9	61.1
Noise Standard	75	70

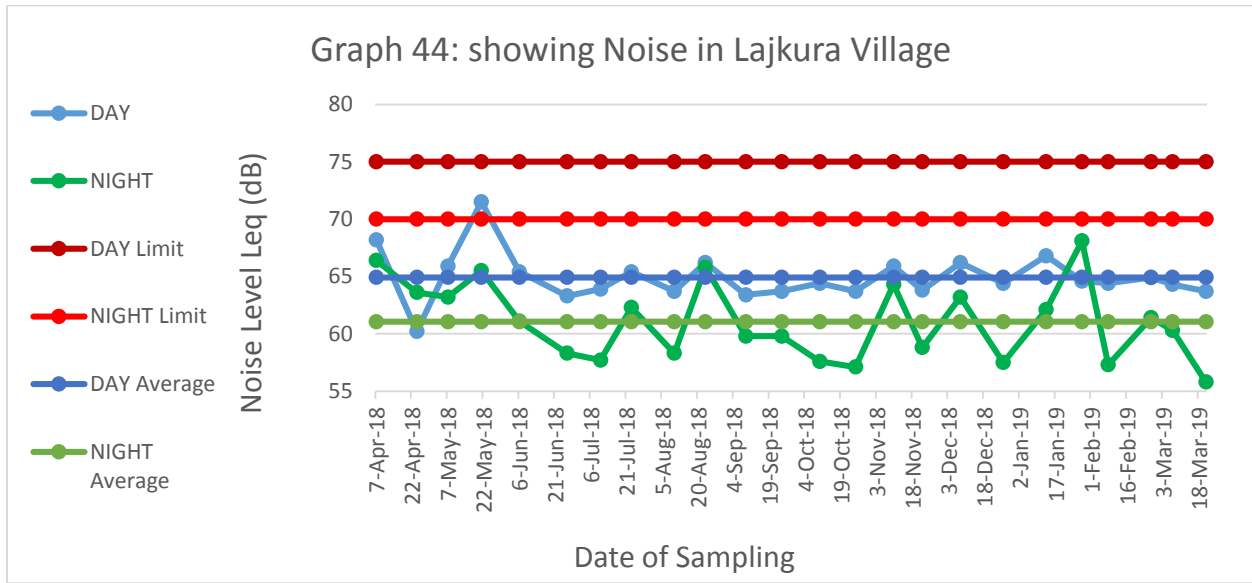


Table :62
Project: Samleswari OCP
Monitoring Station: Jamkani village

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	61.4	56.7
24-Apr-18	62.3	59.9
7-May-18	60.2	59.7
21-May-18	67.2	55.1
6-Jun-18	63.7	60.3
26-Jun-18	65.9	63.1
10-Jul-18	66.9	65.6
23-Jul-18	63.9	61.3
10-Aug-18	65.2	60.7
23-Aug-18	64.8	62.4
9-Sep-18	62.7	60.3
24-Sep-18	64.7	62.7
10-Oct-18	63.6	58.4
25-Oct-18	64.2	61.4
10-Nov-18	63.4	60.8
22-Nov-18	64.8	61.4
8-Dec-18	60.2	58.2
26-Dec-18	62.6	57.2
13-Jan-19	63.2	59.6
28-Jan-19	65.8	56.9
8-Feb-19	62.1	58.7
26-Feb-19	66.4	63.6
7-Mar-19	63.8	61.2
21-Mar-19	65.8	65.2
Brief Statistic (in dB)	Day	Night
Minimum	60.2	55.1
Maximum	67.2	65.6
Mean	64	60.4
Noise Standard	75	70

Graph 45: showing Noise in Jamkani village

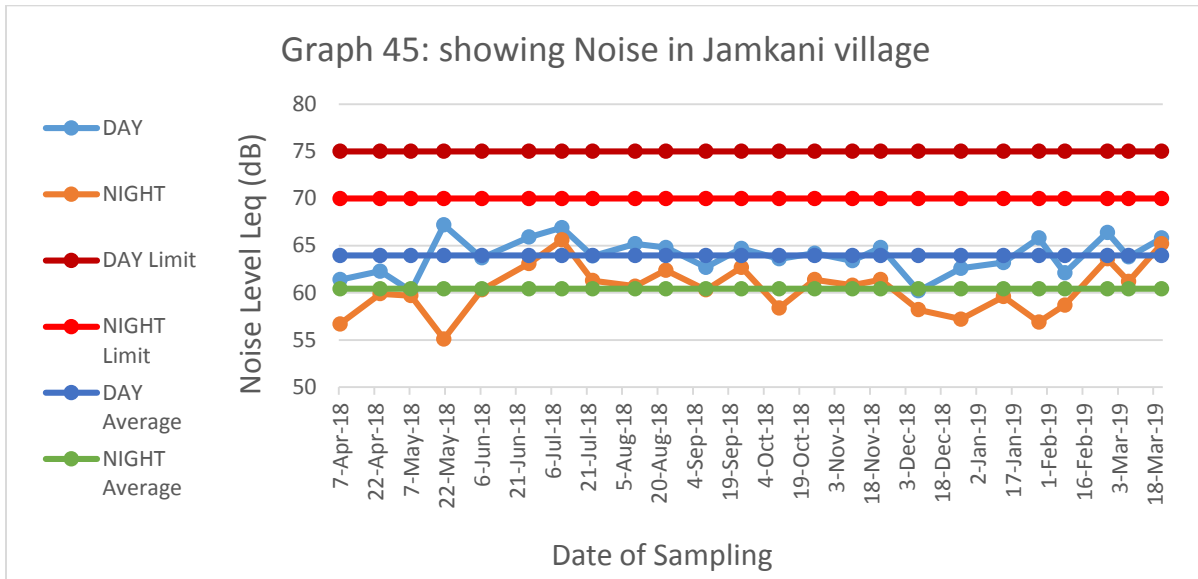


Table :63
Project: Lajkura OCP
Monitoring Station: Near Project Office

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	62.7	61.1
24-Apr-18	61.8	62.4
7-May-18	67.6	67.3
21-May-18	66.6	51.8
6-Jun-18	66.1	63.2
26-Jun-18	67	64.9
10-Jul-18	67.4	59.4
23-Jul-18	67.3	64.3
10-Aug-18	66.4	63
23-Aug-18	64.7	61.3
9-Sep-18	66.1	64.2
24-Sep-18	66.2	64.9
10-Oct-18	67.3	64.8
25-Oct-18	66.2	63.3
10-Nov-18	68.8	65.4
22-Nov-18	67.1	67.6
8-Dec-18	68.2	67.5
26-Dec-18	68.2	62.2
13-Jan-19	67.4	64.8
28-Jan-19	67.5	63.8
8-Feb-19	67.9	62.2
26-Feb-19	68.9	65.3
7-Mar-19	68.4	64.1
21-Mar-19	67.5	63.8
Brief Statistic (in dB)	Day	Night
Minimum	61.8	51.8
Maximum	68.9	67.6
Mean	66.8	63.4
Noise Standard	75	70

Graph 46: showing Noise in Near Project Office

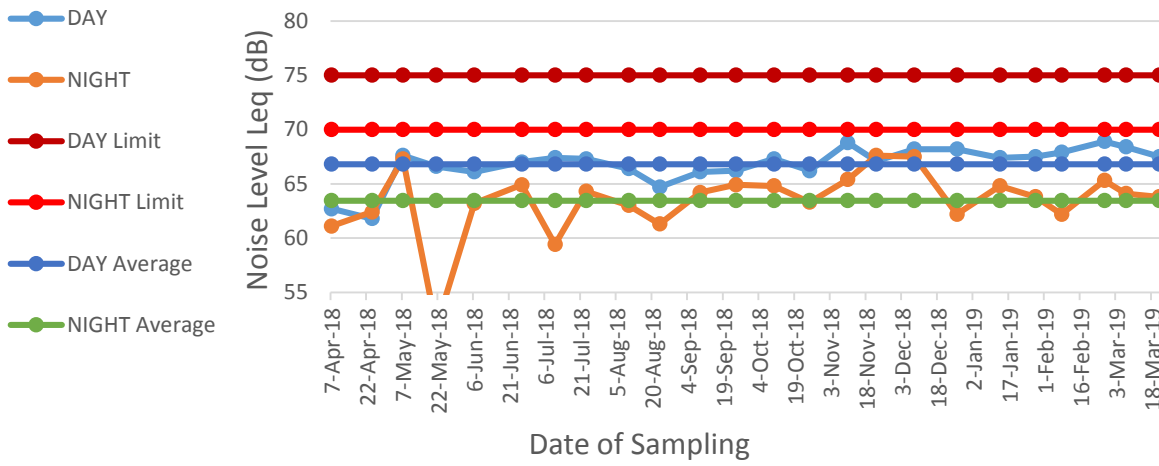


Table :64
Project: Lajkura OCP
Monitoring Station: Near Adarsh Nagar Colony

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	70.4	57.7
24-Apr-18	62.4	66.3
7-May-18	62.8	64.6
21-May-18	75.6	67.5
6-Jun-18	67	63.1
26-Jun-18	66.7	62.1
10-Jul-18	64.7	64.8
23-Jul-18	64.9	61.7
10-Aug-18	63.7	60.2
23-Aug-18	65.2	64.2
9-Sep-18	65.4	61.6
24-Sep-18	65.3	61
10-Oct-18	66.2	63.7
25-Oct-18	64.4	59.7
10-Nov-18	63.6	59.2
22-Nov-18	64.4	68.4
8-Dec-18	63.7	61.2
26-Dec-18	65.2	62.6
13-Jan-19	65.3	61.5
28-Jan-19	66.4	61.2
8-Feb-19	65.3	64.6
26-Feb-19	64.8	62.1
7-Mar-19	64.2	63.2
21-Mar-19	66.4	61.7
Brief Statistic (in dB)	Day	Night
Minimum	62.4	57.7
Maximum	75.6	68.4
Mean	65.6	62.7
Noise Standard	75	70

Graph 47: Showing Noise in Near Adarsh Nagar Colony

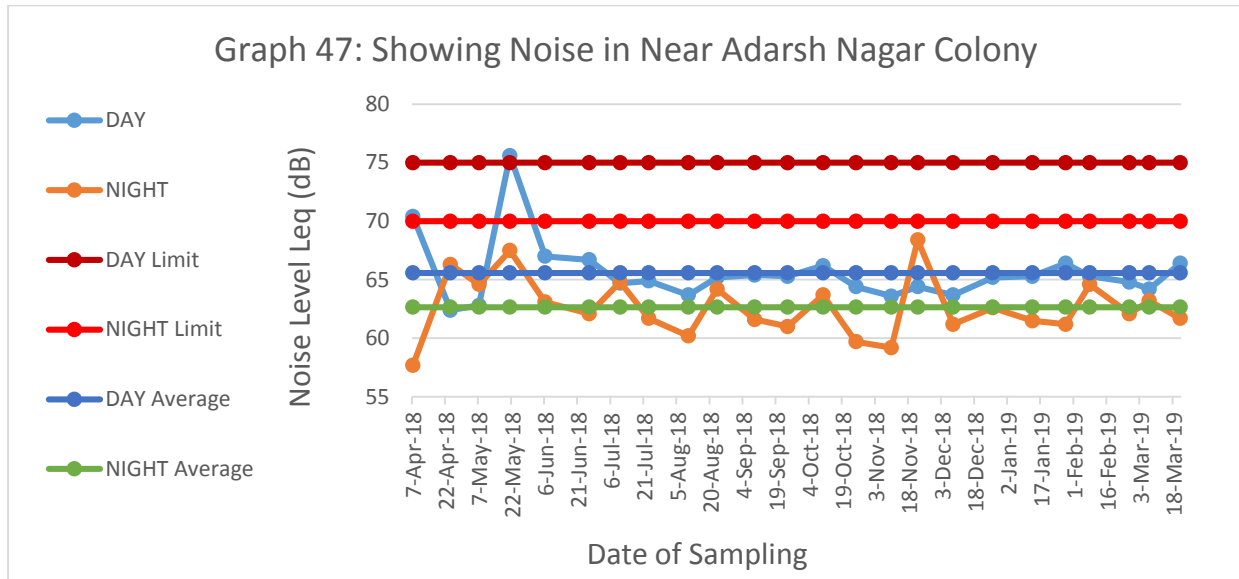


Table :65
Project: Lajkura OCP
Monitoring Station: Chhauliberna

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	63.9	57.6
24-Apr-18	61.4	64.9
7-May-18	59.4	63.8
21-May-18	75.6	61.7
6-Jun-18	63.2	61.3
26-Jun-18	66.4	61.5
10-Jul-18	68.7	64.9
23-Jul-18	66.8	63.2
10-Aug-18	64.2	59.4
23-Aug-18	67.3	58.7
9-Sep-18	64.3	61.7
24-Sep-18	65.2	61.4
10-Oct-18	63.5	60.4
25-Oct-18	66.7	62.9
10-Nov-18	66.9	63.3
22-Nov-18	66.4	63.9
8-Dec-18	59.4	63.6
26-Dec-18	63.4	60.4
13-Jan-19	64.8	62.3
28-Jan-19	63.7	61.3
8-Feb-19	63.4	60.4
26-Feb-19	67.6	63.8
7-Mar-19	66.3	64.9
21-Mar-19	63.9	61.3
Brief Statistic (in dB)	Day	Night
Minimum	59.4	57.6
Maximum	75.6	64.9
Mean	65.1	62.0
Noise Standard	75	70

Graph 48: Showing Noise in Chhauliberna

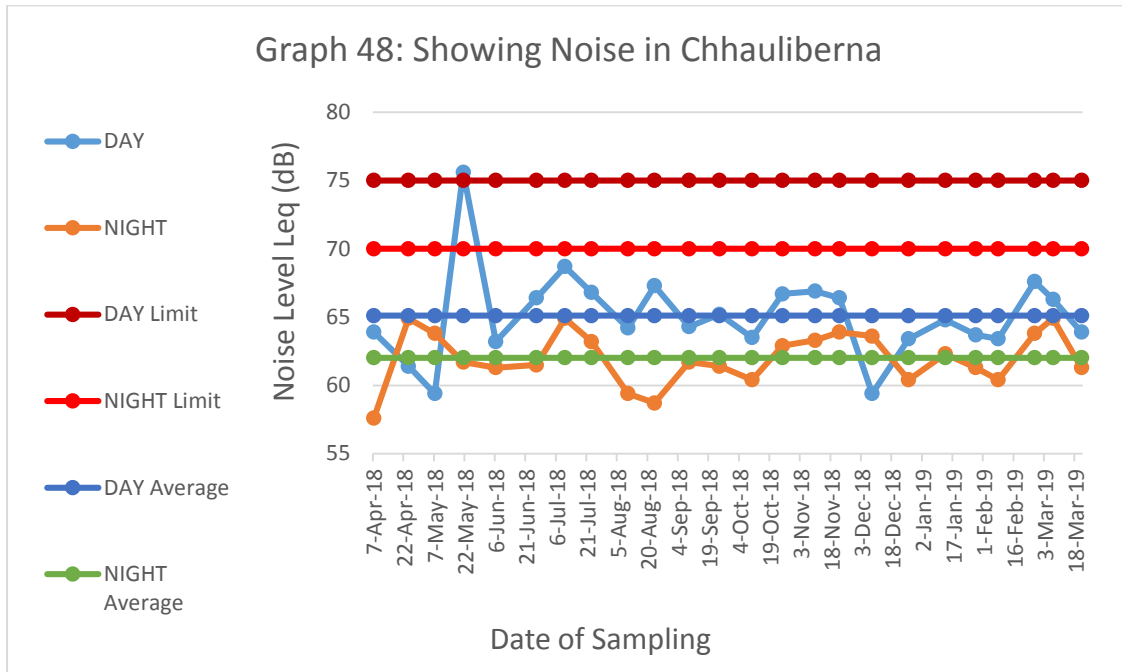


Table :66
Project: Lakhanpur
Monitoring Station: South of quarry 5

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	49	54.4
24-Apr-18	60.3	61.6
10-May-18	62.4	58.3
24-May-18	57.8	50.1
11-Jun-18	66.4	63.4
27-Jun-18	64.3	61.6
11-Jul-18	63.6	61.3
24-Jul-18	66.9	63.7
11-Aug-18	66.4	63.7
24-Aug-18	65.4	60.8
10-Sep-18	66.8	62.8
25-Sep-18	66.2	63.4
11-Oct-18	64.8	60.9
26-Oct-18	66.1	63.4
11-Nov-18	66.3	62.9
23-Nov-18	66.2	63.4
10-Dec-18	62.5	58.2
25-Dec-18	63.2	61.9
14-Jan-19	64.2	61.6
29-Jan-19	62.7	57.5
11-Feb-19	63.2	60.9
26-Feb-19	66.3	62.9
8-Mar-19	66.3	63.2
27-Mar-19	62.7	57.5
Brief Statistic (in dB)	Day	Night
Minimum	49	50.1
Maximum	66.9	63.7
Mean	63.8	60.8
Noise Standard	75	70

Graph 49: showing Noise in South of quarry 5

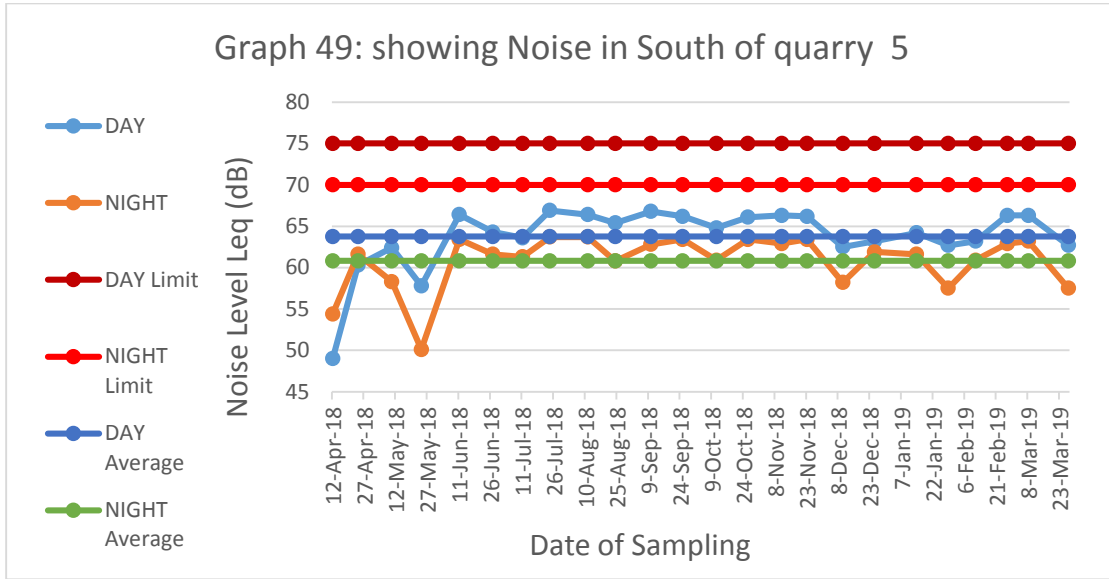


Table :67
Project: Lakhanpur
Monitoring Station: Near Quarry 3

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	60	52.3
24-Apr-18	61.4	58.7
10-May-18	58.4	59.8
24-May-18	68.5	50.2
11-Jun-18	69.3	67.2
27-Jun-18	66.4	64.7
11-Jul-18	69.4	61.7
24-Jul-18	66.4	63.2
11-Aug-18	64.3	62.8
24-Aug-18	65.4	68.3
10-Sep-18	67.5	62.9
25-Sep-18	62.7	59.7
11-Oct-18	66.9	62.7
26-Oct-18	62.7	58.6
11-Nov-18	64.8	62.1
23-Nov-18	63.7	60.5
10-Dec-18	69.2	67.6
25-Dec-18	67.8	62.6
14-Jan-19	67.9	63.1
29-Jan-19	66.5	61.9
11-Feb-19	67.9	62.5
26-Feb-19	64.8	61
8-Mar-19	65.4	61.8
27-Mar-19	66.9	61.9
Brief Statistic (in dB)	Day	Night
Minimum	58.4	50.2
Maximum	69.4	68.3
Mean	65.6	61.6
Noise Standard	75	70

Graph 50: showing Noise in Near Quarry 3

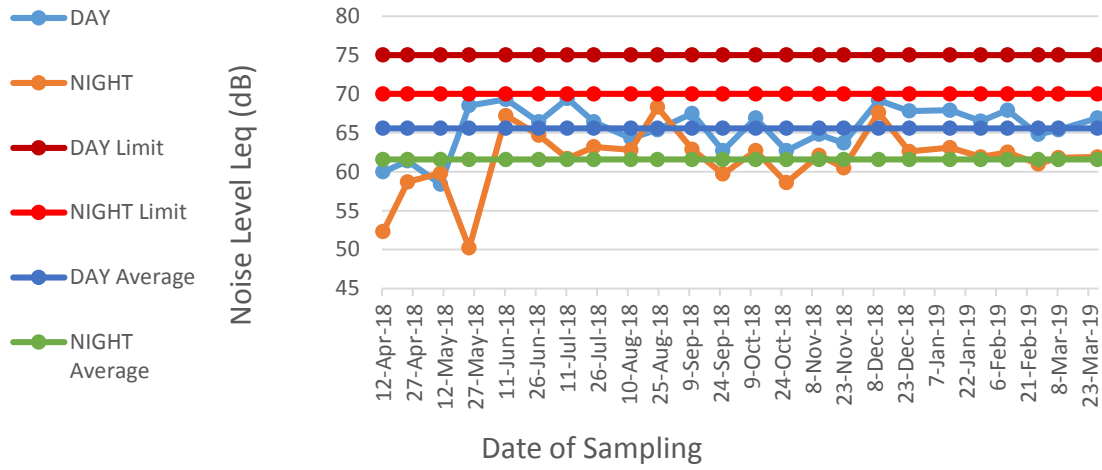


Table :68
Project: Lakhanpur
Monitoring Station: West of quarry 1

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	65	59.2
24-Apr-18	58.7	56.4
10-May-18	56.7	54.6
24-May-18	59.9	51.9
11-Jun-18	68.9	66.3
27-Jun-18	68.1	58.1
11-Jul-18	61.1	59.8
24-Jul-18	67.3	64.3
11-Aug-18	67.8	64.2
24-Aug-18	66.1	64.3
10-Sep-18	63.2	58.4
25-Sep-18	63.4	61.8
11-Oct-18	62.2	58.4
26-Oct-18	63.4	60.1
11-Nov-18	63.9	61.3
23-Nov-18	64.4	61.7
10-Dec-18	62.3	61.2
25-Dec-18	63.5	57.2
14-Jan-19	65.3	61.7
29-Jan-19	62.3	58.4
11-Feb-19	63.4	56.8
26-Feb-19	63.7	60.3
8-Mar-19	64.9	60.7
27-Mar-19	62.2	58.4
Brief Statistic (in dB)	Day	Night
Minimum	56.7	51.9
Maximum	68.9	66.3
Mean	63.7	59.8
Noise Standard	75	70

Graph 51: Showing Noise in West of quarry 1

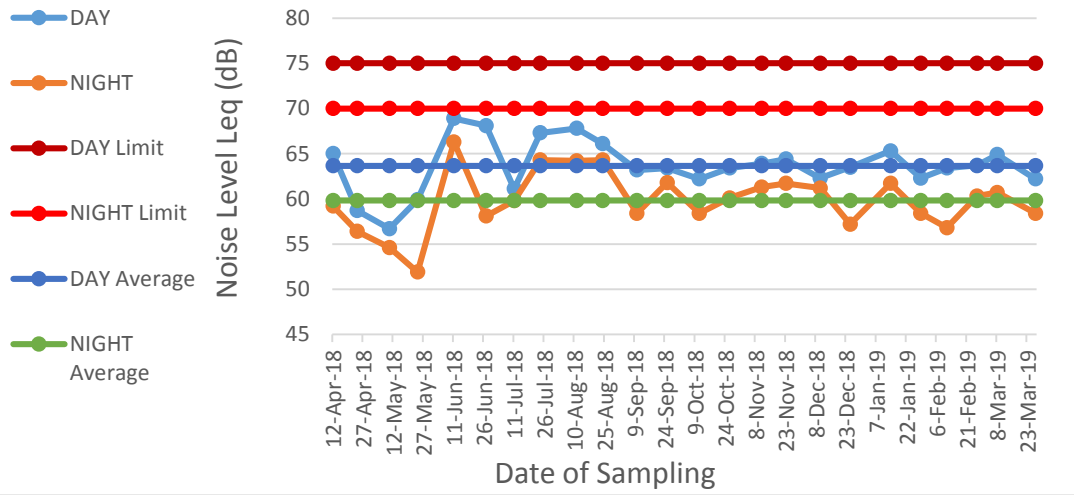


Table :69
Project: Lakhanpur
Monitoring Station: Near East of quarry 1

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	61.5	57.1
24-Apr-18	60.2	56
10-May-18	64	60.2
24-May-18	62.3	58.1
11-Jun-18	67.1	65.8
27-Jun-18	66.3	63.9
11-Jul-18	63.8	58.4
24-Jul-18	64.7	61.3
11-Aug-18	62.4	60.3
24-Aug-18	63.7	62.4
10-Sep-18	64.3	61.7
25-Sep-18	64.8	61.2
11-Oct-18	64.3	62
26-Oct-18	66.3	61.7
11-Nov-18	68.3	66.4
23-Nov-18	65.3	60.5
10-Dec-18	58.9	60.2
25-Dec-18	65.2	62
14-Jan-19	67.8	63.5
29-Jan-19	63.3	62.1
11-Feb-19	65.3	62
26-Feb-19	67.6	65.9
8-Mar-19	68.7	65.3
27-Mar-19	63.7	62.1
Brief Statistic (in dB)	Day	Night
Minimum	58.9	56
Maximum	68.7	66.4
Mean	64.6	61.7
Noise Standard	75	70

Graph 53: Showing Noise in Near east of quarry 1

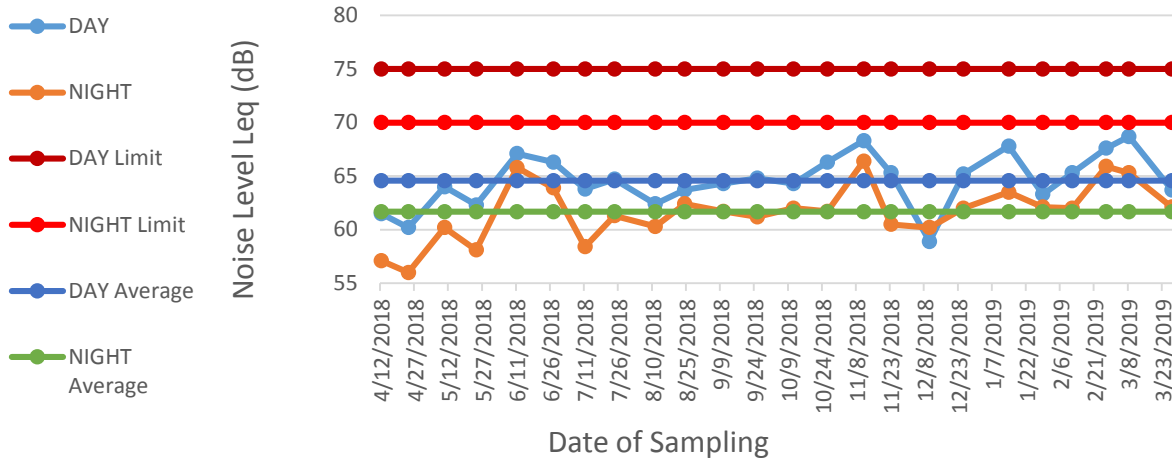


Table :70
Project: Lilari
Monitoring Station: South east of mine

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	67.2	55.6
24-Apr-18	57.6	56
10-May-18	63.8	61.9
24-May-18	67.3	51.8
11-Jun-18	68.7	65.3
27-Jun-18	66.3	61.7
11-Jul-18	65.6	65.3
24-Jul-18	68.4	65.2
11-Aug-18	63.2	60.1
24-Aug-18	66.9	61.2
10-Sep-18	66.4	61.3
25-Sep-18	63.2	60.3
11-Oct-18	66.2	61.2
26-Oct-18	64.2	62.2
10-Nov-18	64.7	61.1
23-Nov-18	64.8	61.2
10-Dec-18	66.2	61.2
25-Dec-18	66.2	61.5
14-Jan-19	66.8	62.9
29-Jan-19	64.3	60.9
11-Feb-19	66.9	61.5
26-Feb-19	64.4	61.3
08-Mar-19	67.6	63.4
27-Mar-19	64.3	60.9
Brief Statistic (in dB)	Day	Night
Minimum	49	50.1
Maximum	66.9	63.7
Mean	63.8	60.8
Noise Standard	75	70

Graph 53: Showing Noise in South east of mine

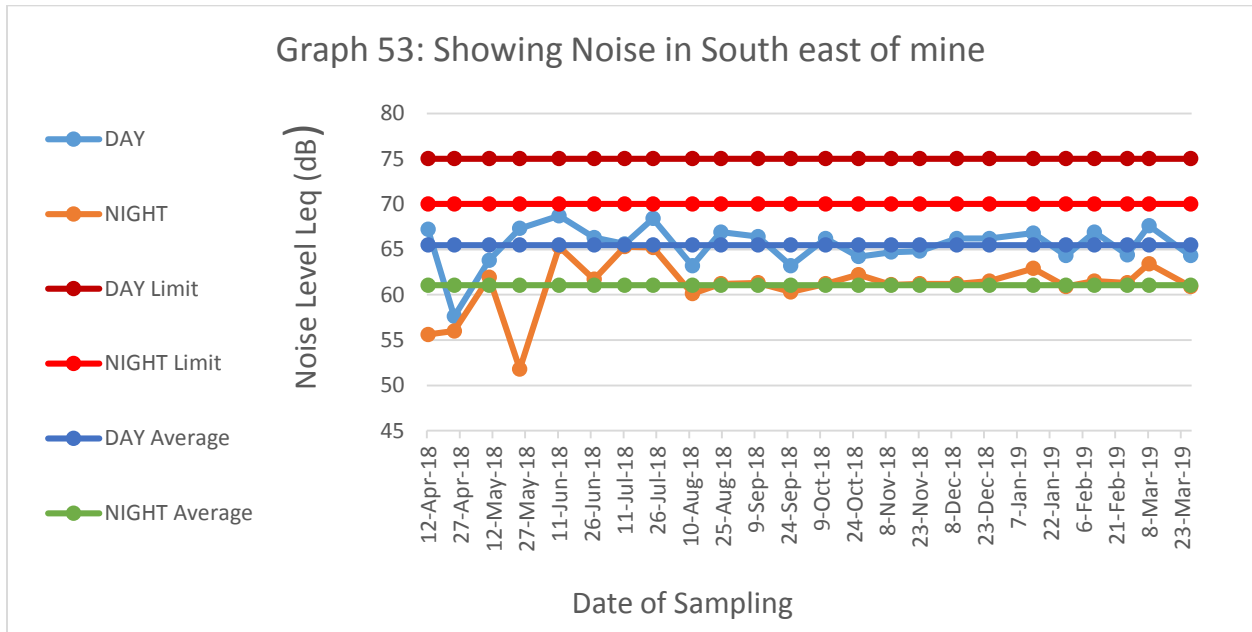


Table :71
Project: Belpahar
Monitoring Station: South west of mine

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	62.3	65.8
24-Apr-18	59.8	59.8
10-May-18	63.8	61.3
24-May-18	68.5	52.1
11-Jun-18	66	62.4
27-Jun-18	63.9	69.2
11-Jul-18	63.4	60.3
24-Jul-18	69.4	66.8
11-Aug-18	65	60.6
24-Aug-18	64.2	59.7
10-Sep-18	64.3	59.7
25-Sep-18	66.8	62.4
11-Oct-18	66.2	65.9
26-Oct-18	63.9	60.5
11-Nov-18	61.4	58.7
23-Nov-18	62.7	60.7
10-Dec-18	61.2	59.6
25-Dec-18	68.7	65.6
14-Jan-19	66.3	61.7
29-Jan-19	65.3	63.7
11-Feb-19	68.7	65.3
26-Feb-19	60.3	58.4
8-Mar-19	66.4	64.4
27-Mar-19	65.3	63.7
Brief Statistic (in dB)	Day	Night
Minimum	59.8	52.1
Maximum	69.4	69.2
Mean	64.7	62.0
Noise Standard	75	70

Graph 54: Showing Noise in South west of mine

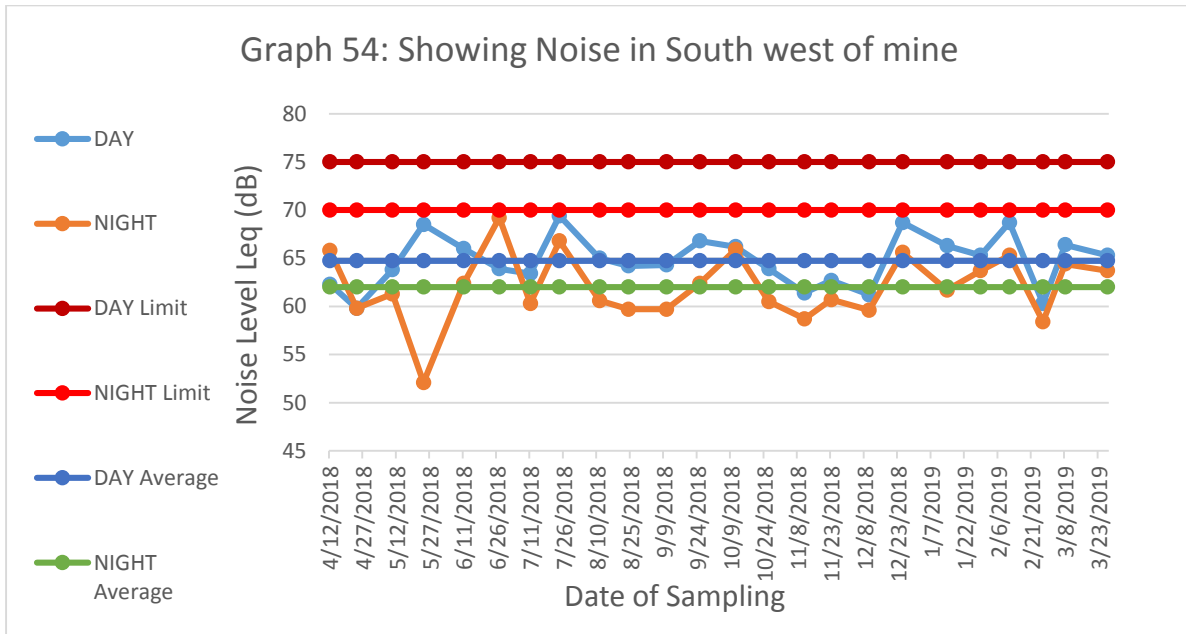


Table :72
Project: Lakhanpur
Monitoring Station: Near Quarry 5

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	68.4	59.3
24-Apr-18	62.4	58.1
10-May-18	65.6	63.7
24-May-18	61.3	59.5
11-Jun-18	68.3	63.7
27-Jun-18	65.8	63.4
11-Jul-18	65.6	62.4
24-Jul-18	67.9	64.3
11-Aug-18	68.1	63.6
24-Aug-18	67.7	60.4
10-Sep-18	64.4	63.6
25-Sep-18	65.3	63.9
11-Oct-18	65.4	63.7
26-Oct-18	65.1	59.3
11-Nov-18	68.9	66.2
23-Nov-18	64.5	59.9
10-Dec-18	66.6	57.3
25-Dec-18	65.3	61
14-Jan-19	64.1	60
29-Jan-19	64.8	60.8
11-Feb-19	63.3	60.2
26-Feb-19	65.2	61.7
8-Mar-19	68.8	63.9
27-Mar-19	64.8	60.8
Brief Statistic (in dB)	Day	Night
Minimum	61.3	57.3
Maximum	68.9	66.2
Mean	65.7	61.7
Noise Standard	75	70

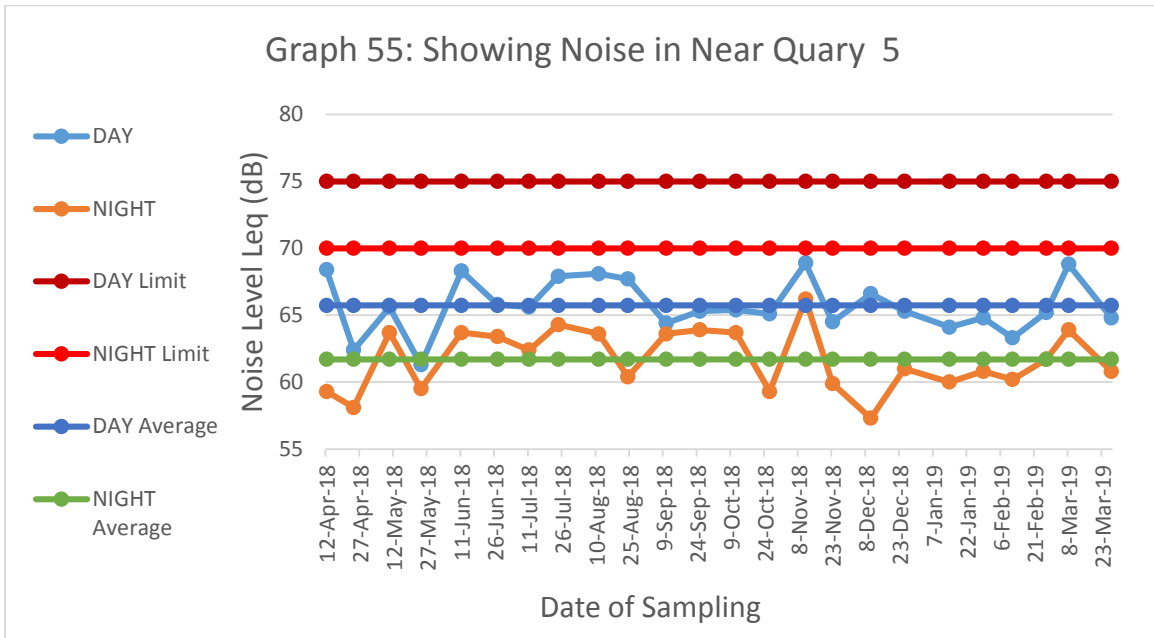


Table :73
Project: Lakhanpur
Monitoring Station: Near PO office

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
12-Apr-18	67.8	51.8
24-Apr-18	65.4	67.5
10-May-18	62.6	65.4
24-May-18	67.1	52.3
11-Jun-18	69.3	66.3
27-Jun-18	67.4	63.9
11-Jul-18	71	68.7
24-Jul-18	69.2	66.4
11-Aug-18	67.3	65.9
24-Aug-18	63.9	63
10-Sep-18	69.1	67.4
25-Sep-18	67.2	66.3
11-Oct-18	68.3	66.3
26-Oct-18	68.2	65.5
11-Nov-18	69.7	67.3
23-Nov-18	68.4	65.1
10-Dec-18	67.2	66.2
25-Dec-18	66.2	65
14-Jan-19	68.6	64.2
29-Jan-19	67.6	66.1
11-Feb-19	66.7	62.1
26-Feb-19	68.5	64.3
8-Mar-19	65.8	60.7
27-Mar-19	67.6	65.3
Brief Statistic (in dB)	Day	Night
Minimum	62.6	51.8
Maximum	71	68.7
Mean	67.5	64.3
Noise Standard	75	70

Graph 56: Showing Noise in Near PO office

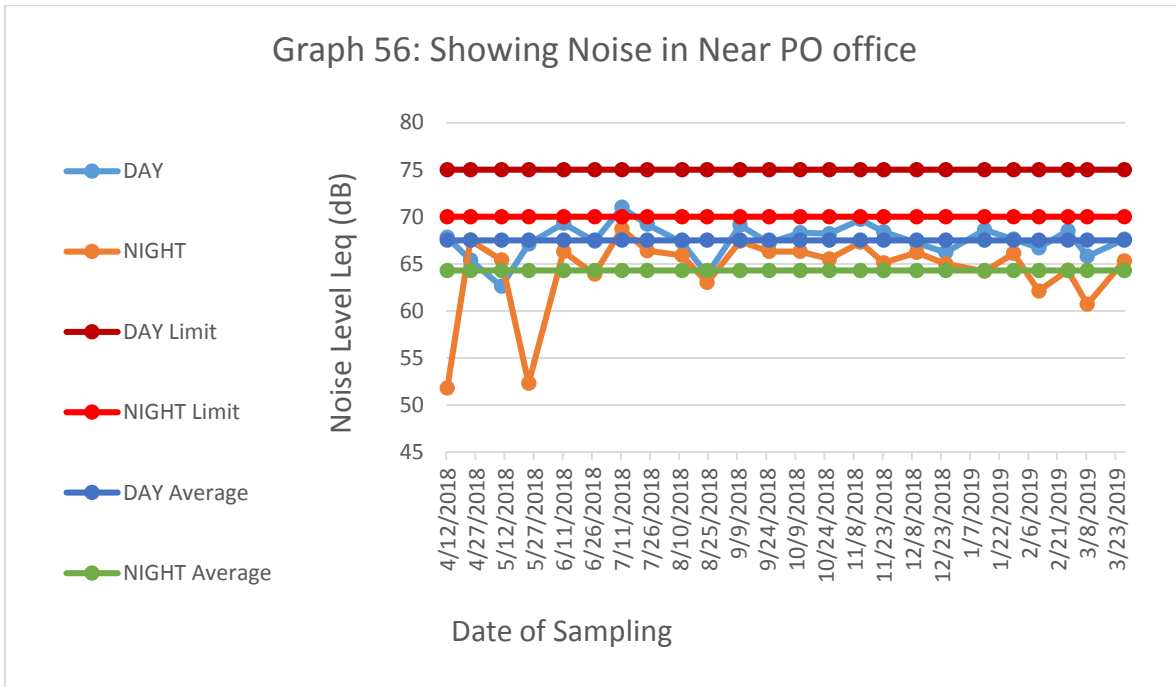


Table :74
Project: Lakhanpur
Monitoring Station: Near workshop

DATE OF SAMPLING	DAY	NIGHT
12-Apr-18	63.5	60.7
24-Apr-18	67.5	60
10-May-18	65.3	67.8
24-May-18	69	50.4
11-Jun-18	64.2	61.3
27-Jun-18	63	59.3
11-Jul-18	66.8	64.7
24-Jul-18	67.2	63.2
11-Aug-18	65.6	63.1
24-Aug-18	68.5	66.2
10-Sep-18	67.3	65.2
25-Sep-18	64.4	63.8
11-Oct-18	68.9	65.1
26-Oct-18	67.4	61.8
11-Nov-18	67.8	65.1
23-Nov-18	67.8	66.8
10-Dec-18	69.7	67.6
25-Dec-18	64.8	62.2
14-Jan-19	66.4	62.1
29-Jan-19	66	63.3
11-Feb-19	64.8	62.2
26-Feb-19	66.2	61.8
8-Mar-19	67.3	64.5
27-Mar-19	66.9	62.7
Brief Statistic (in dB)	Day	Night
Minimum	63	50.4
Maximum	69.7	67.8
Mean	66.5	63.0
Noise Standard	75	70

Graph 57: Showing Noise in Near workshop

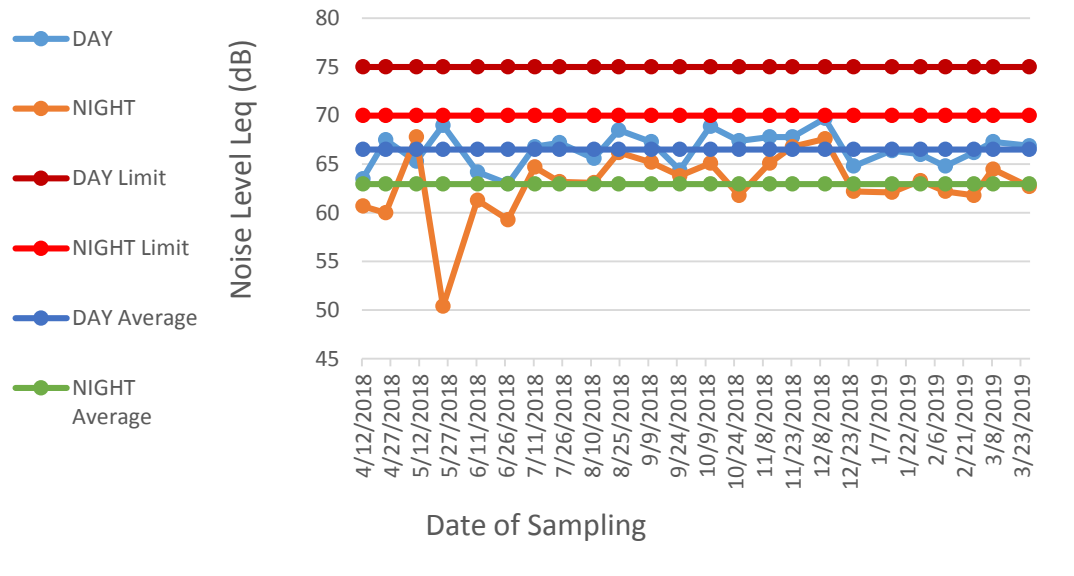


Table :75
Project: Basundhara
Monitoring Station: N-1 Near Farakbahal village

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
3-Apr-18	66.1	58.4
17-Apr-18	51.2	64.6
5-May-18	64.5	64.6
16-May-18	66.3	61.2
4-Jun-18	64.4	60.4
19-Jun-18	59.7	57.5
3-Jul-18	66.3	63.7
18-Jul-18	64.7	58.7
3-Aug-18	68.8	63.9
16-Aug-18	66.7	61.3
3-Sep-18	63.7	61.3
18-Sep-18	63.9	61.8
4-Oct-18	64.7	61.3
15-Oct-18	63.5	59.1
2-Nov-18	63.4	58.7
16-Nov-18	64.9	59.1
3-Dec-18	66.4	60.7
19-Dec-18	68.3	66.7
7-Jan-19	64.7	61.3
22-Jan-19	64.8	60.5
2-Feb-19	66.8	64.7
16-Feb-19	63.6	58.4
2-Mar-19	66.8	65.9
19-Mar-19	64.8	60.5
Brief Statistic (in dB)	Day	Night
Minimum	59.8	52.1
Maximum	69.4	69.2
Mean	64.7	62
Noise Standard	75	70

Graph 58: Showing Noise in N1-Near Farakbahal village

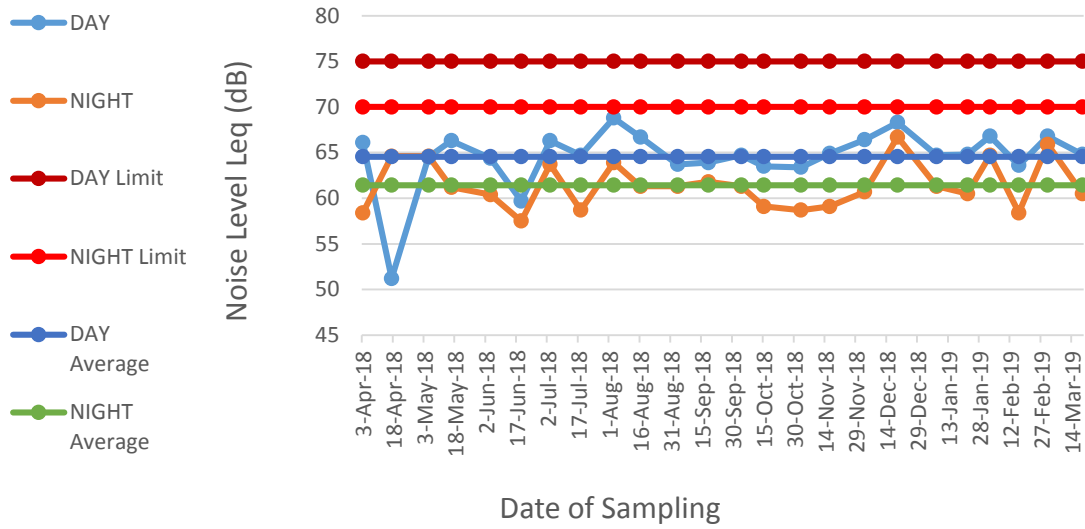


Table :76
Project: Basundhara
Monitoring Station: N2-Near sardega railway siding

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
3-Apr-18	63.6	60.9
17-Apr-18	64.6	61.5
5-May-18	68.5	62.2
16-May-18	68.6	65.7
4-Jun-18	64.2	61.6
19-Jun-18	68.5	63.2
3-Jul-18	65.2	62.9
18-Jul-18	69.1	68.8
3-Aug-18	62.3	65.5
16-Aug-18	69.1	62.4
3-Sep-18	68.5	67.8
18-Sep-18	69.7	65
4-Oct-18	68.5	65.3
15-Oct-18	68.2	66.2
2-Nov-18	68.3	66.2
16-Nov-18	68.4	68.6
3-Dec-18	68.4	65.8
19-Dec-18	64.7	62.5
7-Jan-19	67.9	66.7
22-Jan-19	69.2	66.4
2-Feb-19	68.9	66.4
16-Feb-19	68.8	66.2
2-Mar-19	68.7	66.8
19-Mar-19	69.7	67.4
Brief Statistic (in dB)	Day	Night
Minimum	62.3	60.9
Maximum	69.7	69.2
Mean	59.8	52.1
Noise Standard	75	70

Graph 59: Showing Noise in N2-Near sardega railway siding

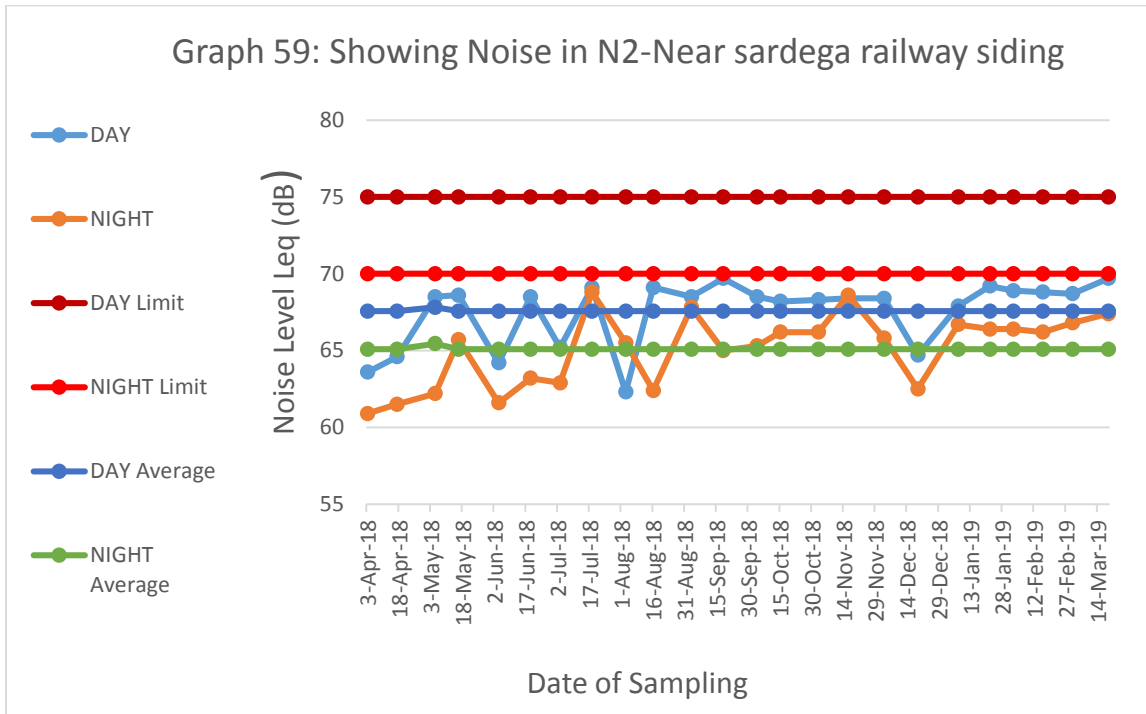


Table :77
Project: Basundhara
Monitoring Station: Near internal dump & CT road of
Bhasundhara(W)Siarmal

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
3-Apr-18	68.9	66.7
17-Apr-18	60.4	57.9
5-May-18	67.3	64.6
16-May-18	64.1	60.4
4-Jun-18	60.6	57
19-Jun-18	64.6	61.3
3-Jul-18	63.4	56.4
18-Jul-18	62.5	65.1
3-Aug-18	60.9	65.4
16-Aug-18	64.8	59.7
3-Sep-18	64.5	62.1
18-Sep-18	62.4	59.3
4-Oct-18	64.9	61.3
15-Oct-18	64.2	61.9
2-Nov-18	64.4	62.9
16-Nov-18	65.1	64.8
3-Dec-18	65.8	66.5
19-Dec-18	70.4	68.4
7-Jan-19	66.4	61.8
22-Jan-19	63.4	60.8
2-Feb-19	63.4	59.4
16-Feb-19	63.8	59.6
2-Mar-19	66.5	61.7
19-Mar-19	63.4	61.8
Brief Statistic (in dB)	Day	Night
Minimum	60.4	56.4
Maximum	70.4	69.2
Mean	64.4	62.0
Noise Standard	75	70

Graph 60: Showing Noise in NL-1 Near internal dump & CT road of Bhasundhara(W)Siarmal

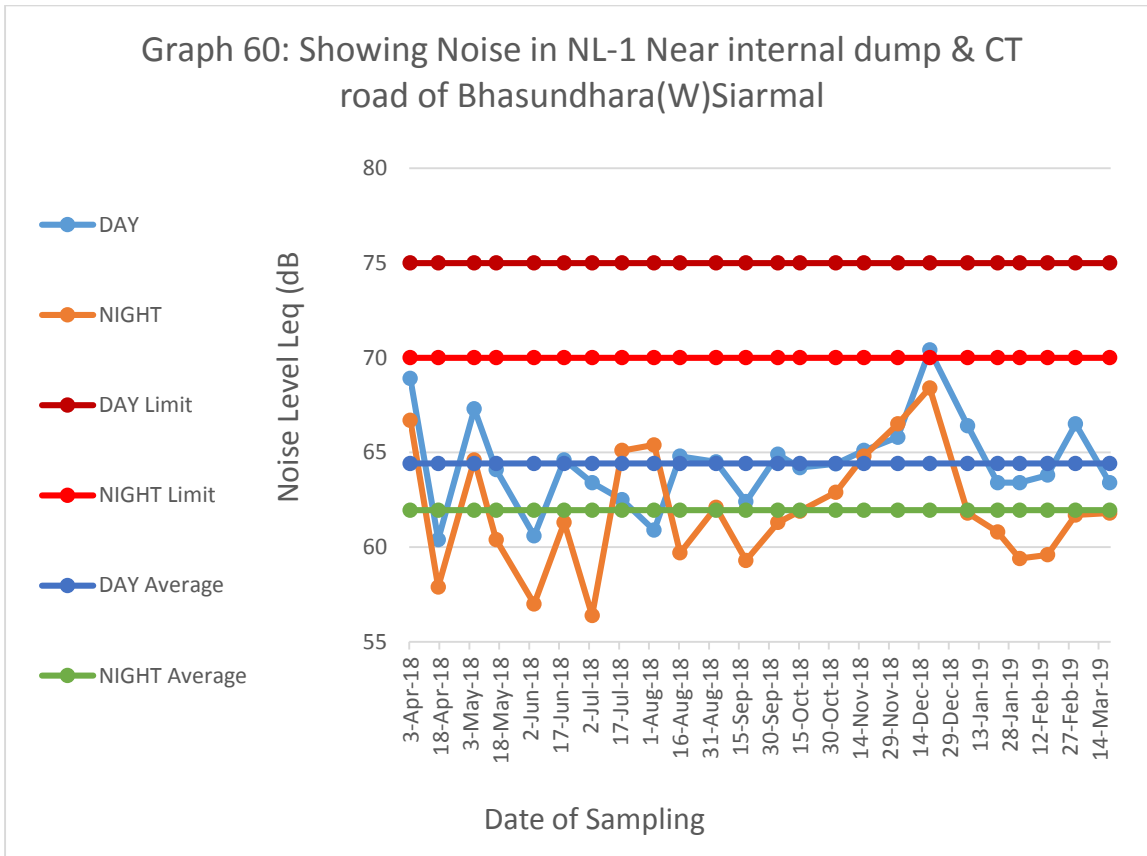


Table :78
Project: Basundhara
Monitoring Station: Near Tikilipara village

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
3-Apr-18	68.3	64.3
17-Apr-18	69.9	58.8
5-May-18	67.8	58.7
16-May-18	64.9	62.4
4-Jun-18	63.1	58.2
19-Jun-18	62.3	58.7
3-Jul-18	64.9	58.1
18-Jul-18	61.5	60.1
3-Aug-18	65.1	64.7
16-Aug-18	67.3	66
3-Sep-18	66.1	64.3
18-Sep-18	67.3	65.2
4-Oct-18	66.4	63.8
15-Oct-18	66.9	63.7
2-Nov-18	65.9	63.6
16-Nov-18	67.8	65.4
3-Dec-18	64.3	62.5
19-Dec-18	66.5	61.6
7-Jan-19	68.7	63.2
22-Jan-19	68.9	63.7
2-Feb-19	67.1	63.7
16-Feb-19	67.2	64.9
2-Mar-19	64.1	60.4
19-Mar-19	68.9	63.7
Brief Statistic (in dB)	Day	Night
Minimum	61.5	58.1
Maximum	69.9	69.2
Mean	66.3	62.5
Noise Standard	75	70

Graph 61: Showing Noise in NL2 Near Tikilipara village

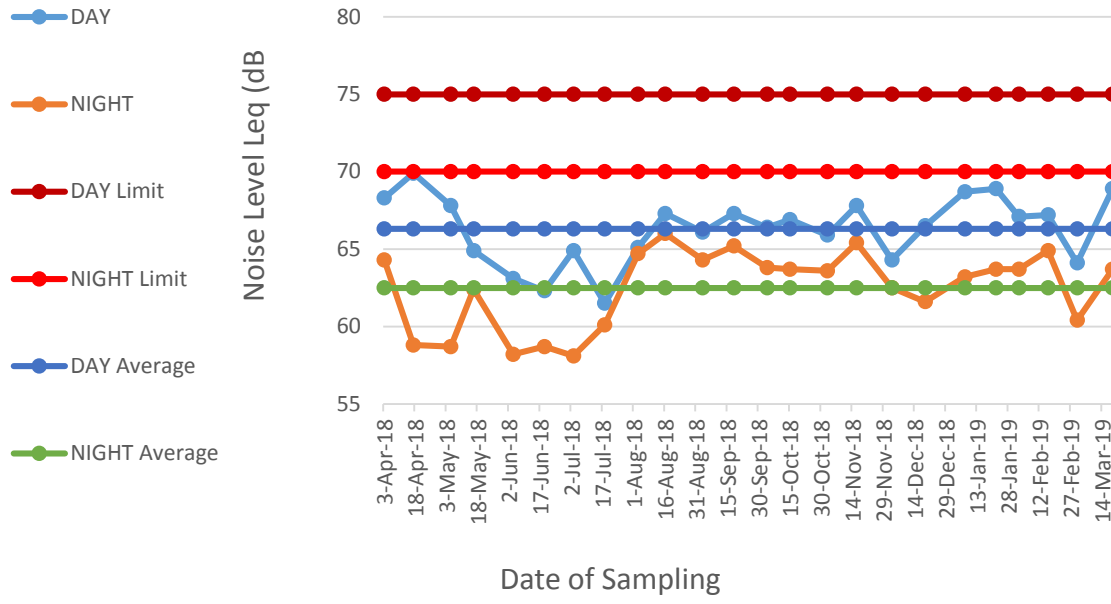


Table :79
Project: Basundhara
Monitoring Station: Near internal dump & CT road of Bhasundhara(W)
Gopalpur

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
3-Apr-18	65	63.1
17-Apr-18	60	68.8
5-May-18	62.8	58.8
16-May-18	65.7	63.8
4-Jun-18	68.7	66.9
19-Jun-18	68.8	66.9
3-Jul-18	66.8	63.9
18-Jul-18	60.5	59.2
3-Aug-18	63.6	63.8
16-Aug-18	66.6	64.2
3-Sep-18	67.3	63.9
18-Sep-18	64.5	61.4
4-Oct-18	67.3	64.8
15-Oct-18	65.7	58.4
2-Nov-18	64.6	58.3
16-Nov-18	66.7	60.3
3-Dec-18	69.7	60.9
19-Dec-18	65.9	64.7
7-Jan-19	65.3	62.8
22-Jan-19	66.1	61.3
2-Feb-19	65.7	61.8
16-Feb-19	66.4	63.2
2-Mar-19	67.2	63.5
19-Mar-19	66.1	61.3
Brief Statistic (in dB)	Day	Night
Minimum	60	58.3
Maximum	69.7	69.2
Mean	65.7	62.8
Noise Standard	75	70

Graph 62: Showing Noise in NL-3 Near internal dump & CT road of Basundhara (W) Gopalpur

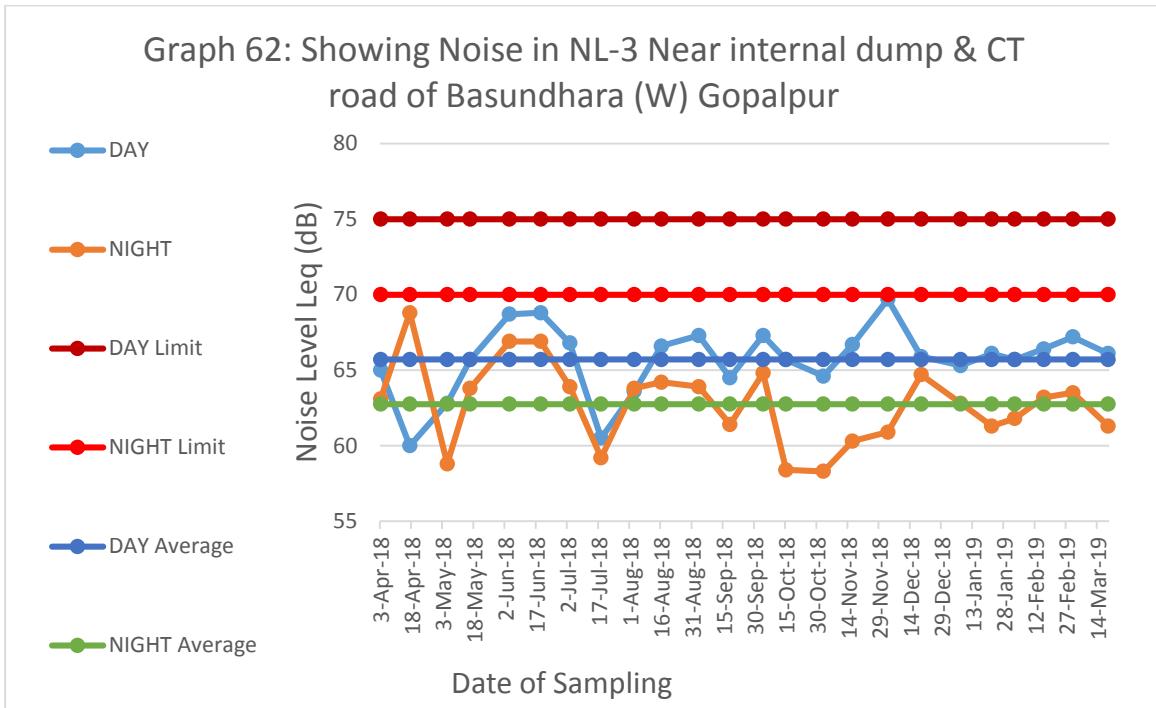


Table :80
Project: Orient Mine No. 1 & 2
Monitoring Station: Orient Mine No.2

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	69.8	75.4
24-Apr-18	67.4	76.4
7-May-18	64.3	65.4
21-May-18	77.5	61.8
6-Jun-18	69.7	64.9
26-Jun-18	68.1	69.7
10-Jul-18	69.2	59.4
23-Jul-18	69.7	66.7
10-Aug-18	68.9	66.7
23-Aug-18	67.9	66
9-Sep-18	67.7	66.3
24-Sep-18	69.7	63.8
10-Oct-18	65.7	64.9
25-Oct-18	68.9	67.2
10-Nov-18	68.7	66.4
22-Nov-18	68.7	68.4
8-Dec-18	65.9	64.2
26-Dec-18	65.7	64.8
13-Jan-19	68.9	66.3
28-Jan-19	65.7	64.8
8-Feb-19	65.7	64.8
26-Feb-19	67.4	63.3
7-Mar-19	67.7	64.9
21-Mar-19	65.7	64.8
Brief Statistic (in dB)	Day	Night
Minimum	64.3	59.4
Maximum	77.5	76.4
Mean	68.1	66.1
Noise Standard	75	70

Graph 63: Showing Noise in Orient Mine No.2

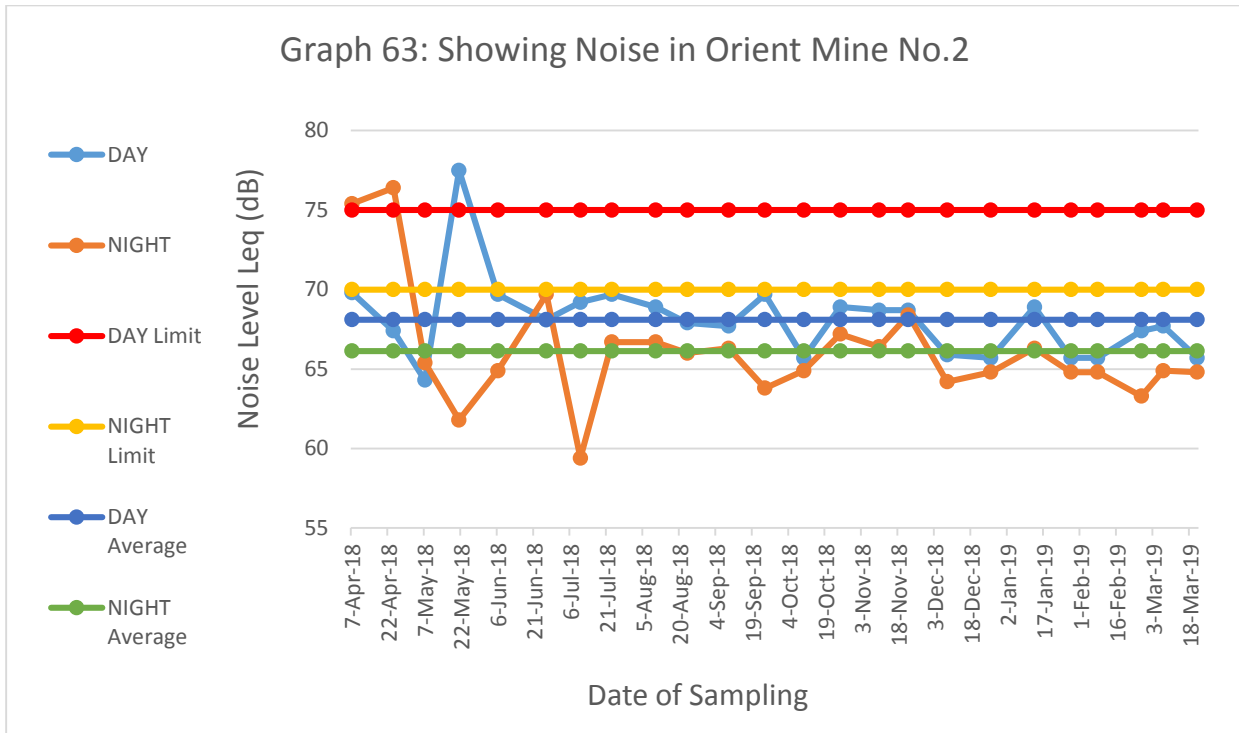


Table :81
Project: Orient Mine No. 1&2
Monitoring Station: Near Adarsh Nagar Colony

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	70.4	57.7
24-Apr-18	62.4	66.3
7-May-18	62.8	64.6
21-May-18	75.6	67.5
6-Jun-18	67	63.1
26-Jun-18	66.7	62.1
10-Jul-18	64.7	64.8
23-Jul-18	64.9	61.7
10-Aug-18	63.7	60.2
23-Aug-18	65.2	64.2
9-Sep-18	65.4	61.6
24-Sep-18	65.3	61
10-Oct-18	66.2	63.7
25-Oct-18	64.4	59.7
10-Nov-18	63.6	59.2
22-Nov-18	64.4	68.4
8-Dec-18	63.7	61.2
26-Dec-18	65.2	62.6
13-Jan-19	65.3	61.5
28-Jan-19	66.4	61.2
8-Feb-19	65.3	64.6
26-Feb-19	64.8	62.1
7-Mar-19	64.2	63.2
21-Mar-19	66.4	61.7
Brief Statistic (in dB)	Day	Night
Minimum	62.4	57.7
Maximum	75.6	68.4
Mean	65.6	62.7
Noise Standard	75	70

Graph 64: Showing Noise in Near Adarsh Nagar Colony

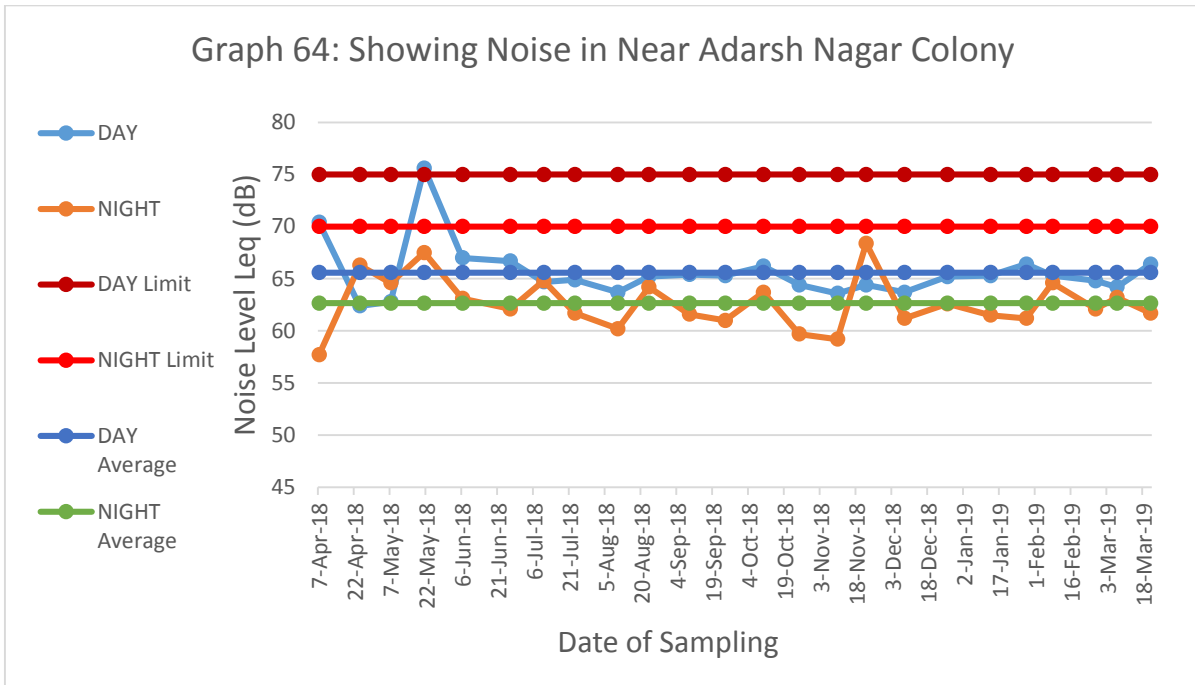


Table :82
Project: Orient Mine No. 3
Monitoring Station: Orient Mine no. 3

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	69.9	70.8
24-Apr-18	61.3	68.2
7-May-18	69.7	66.5
21-May-18	68.7	59.5
6-Jun-18	69.1	67.7
26-Jun-18	67.9	65.7
10-Jul-18	69	60.1
23-Jul-18	67.3	66.9
10-Aug-18	66.9	67.2
23-Aug-18	69.4	66.1
9-Sep-18	69.2	67.1
24-Sep-18	67.4	66.8
10-Oct-18	69.3	67
25-Oct-18	67.1	65.4
10-Nov-18	67.3	65.5
22-Nov-18	66.3	65.4
8-Dec-18	69.7	65.2
26-Dec-18	69.2	66.7
13-Jan-19	69.2	67.5
28-Jan-19	67.3	65
8-Feb-19	69.2	65.7
26-Feb-19	66.3	64.8
7-Mar-19	69.4	66.7
21-Mar-19	66.3	63.1
Brief Statistic (in dB)	Day	Night
Minimum	61.3	59.5
Maximum	69.9	70.8
Mean	68.0	65.9
Noise Standard	75	70

Graph 65: Showing Noise in Orient Mine No.3

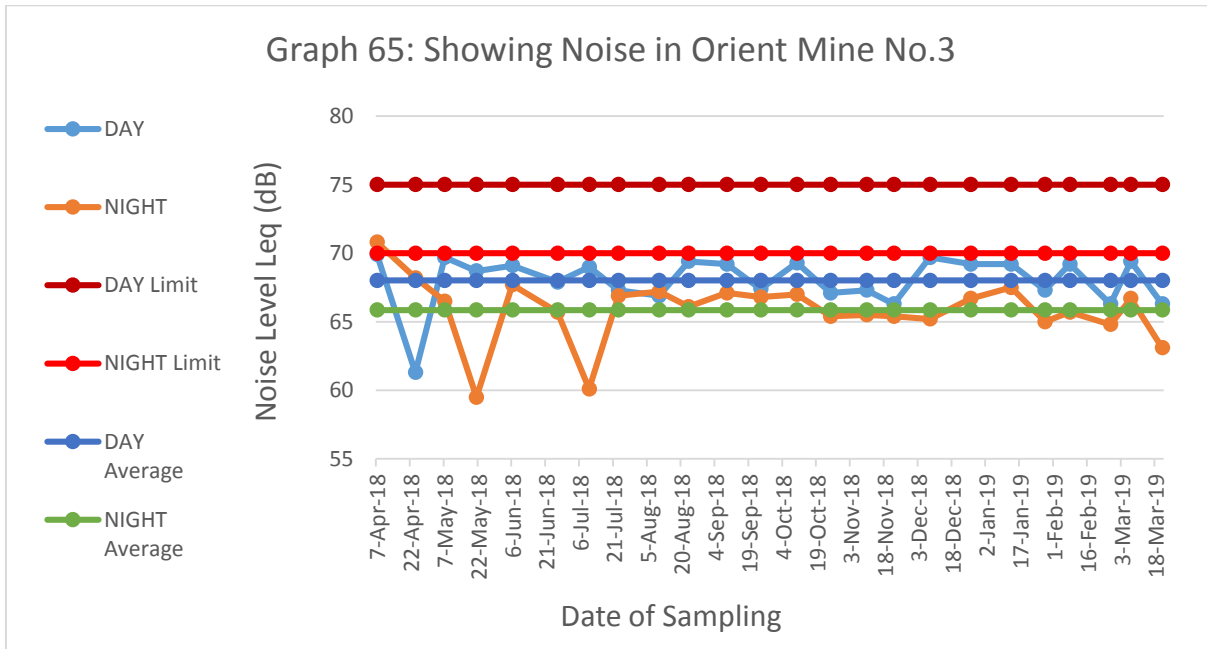


Table :83
Project: Orient Mine No. 4
Monitoring Station: Orient Mine No. 4

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	66.9	67.4
24-Apr-18	66.7	71.1
7-May-18	71.6	69.8
21-May-18	75.8	62.3
6-Jun-18	68.9	69.3
26-Jun-18	69.2	67.3
10-Jul-18	70.3	70.9
23-Jul-18	69.1	67.3
10-Aug-18	67.3	66.2
23-Aug-18	68.7	65.3
9-Sep-18	67.9	64.2
24-Sep-18	64.9	63.3
10-Oct-18	65.7	63.2
25-Oct-18	64.9	63.2
10-Nov-18	64.7	62.2
22-Nov-18	68.9	66.5
8-Dec-18	71.6	66.2
26-Dec-18	66.6	65.2
13-Jan-19	66.8	62.4
28-Jan-19	65.9	60.3
8-Feb-19	66.6	63.2
26-Feb-19	66.9	63.4
7-Mar-19	67.9	64.3
21-Mar-19	64.9	60.3
Brief Statistic (in dB)	Day	Night
Minimum	64.7	60.3
Maximum	75.8	71.1
Mean	67.9	65.2
Noise Standard	75	70

Graph 66: Showing Noise in Orient Mine No.4

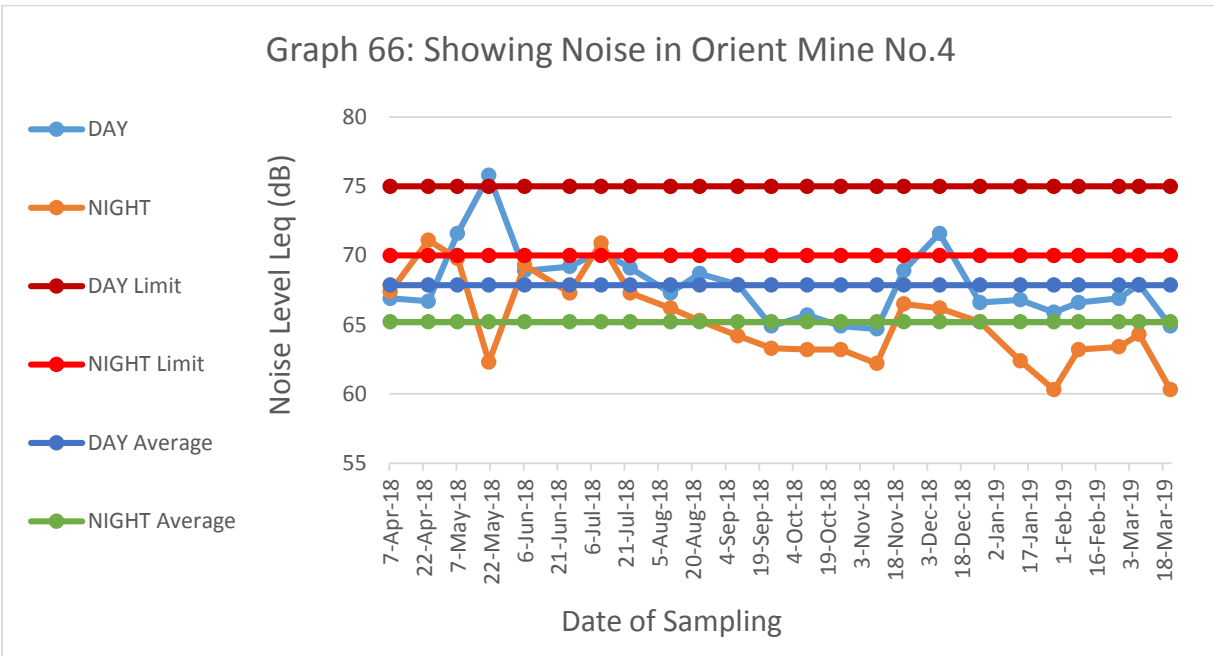


Table :84
Project: HBI Mine
Monitoring Station: Bundia colony pump house

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	64.8	57.8
24-Apr-18	64.5	60.1
7-May-18	60.5	61.2
21-May-18	62.7	53.5
6-Jun-18	64.7	61.6
26-Jun-18	66.5	61.7
10-Jul-18	66	57.5
23-Jul-18	68.9	66.7
10-Aug-18	64.2	61.4
23-Aug-18	64.3	63.7
9-Sep-18	65.9	61.8
24-Sep-18	65.8	62.7
10-Oct-18	67.6	65.4
25-Oct-18	66.2	60.4
10-Nov-18	66.4	60.1
22-Nov-18	66.5	62.4
8-Dec-18	68.2	66.5
26-Dec-18	68.2	60.6
13-Jan-19	65.1	62.3
28-Jan-19	68.6	64.4
8-Feb-19	67.3	60.5
26-Feb-19	66.4	60.1
7-Mar-19	66.8	61.7
21-Mar-19	68.5	63.9
Brief Statistic (in dB)	Day	Night
Minimum	60.5	53.5
Maximum	68.9	66.7
Mean	66.03	61.58
Noise Standard	75	70

Graph 67: Showing Noise in Bundia colony pump house

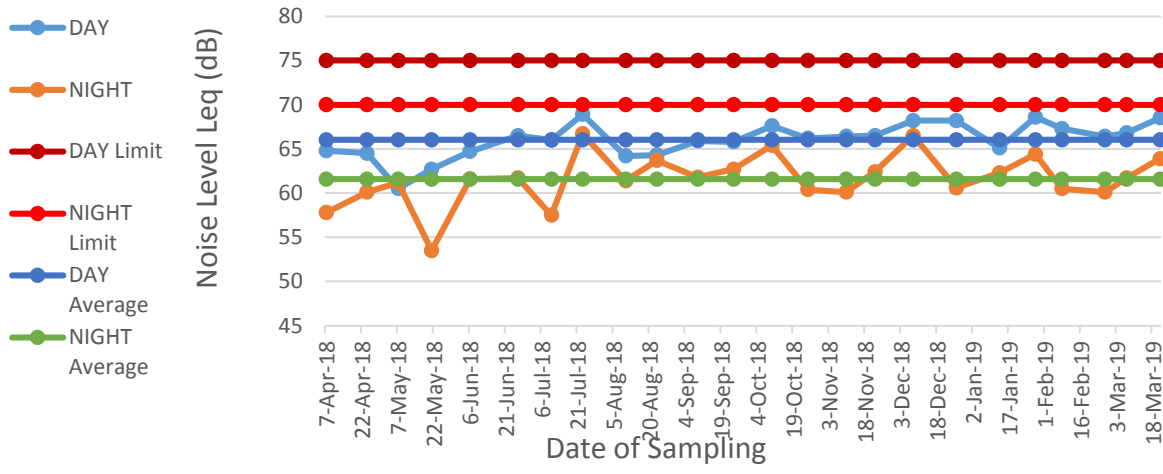


Table :85
Project: HBI Mine
Monitoring Station: HBI Mine

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	72.7	65.9
24-Apr-18	67.2	65.8
7-May-18	68.5	64.7
21-May-18	69.8	55.4
6-Jun-18	67.5	56.6
26-Jun-18	68.1	62
10-Jul-18	69.9	63.8
23-Jul-18	68.7	69.7
10-Aug-18	66.1	65.6
23-Aug-18	68.9	65.5
9-Sep-18	68.9	65.3
24-Sep-18	66.1	64.5
10-Oct-18	68.1	65.2
25-Oct-18	67.9	61.4
10-Nov-18	67.8	61.3
22-Nov-18	68.5	66.7
8-Dec-18	63.7	61.2
26-Dec-18	69.2	66.1
13-Jan-19	68.2	65.7
28-Jan-19	68.3	65.2
8-Feb-19	67.9	64.3
26-Feb-19	67.8	62.9
7-Mar-19	67.4	63.8
21-Mar-19	69.3	64.3
Brief Statistic (in dB)	Day	Night
Minimum	63.7	55.4
Maximum	72.7	69.7
Mean	68.19	63.87
Noise Standard	75	70

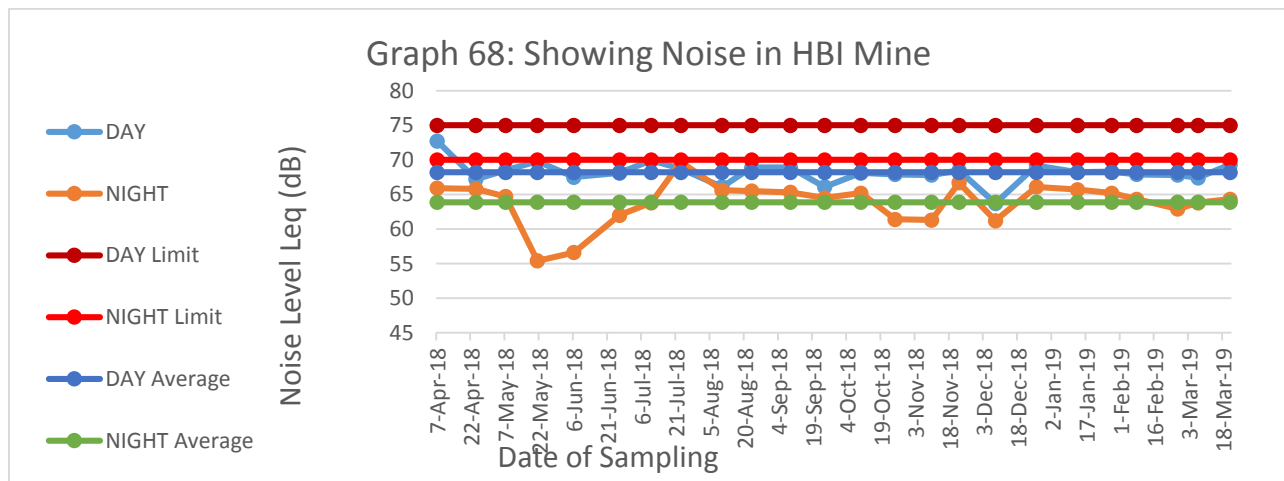
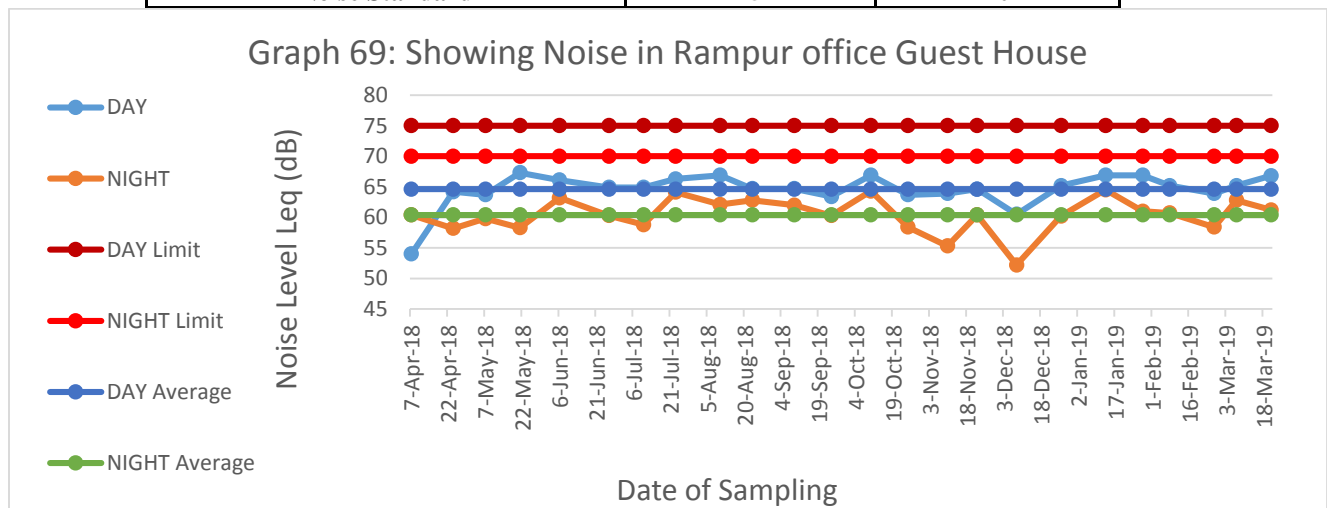


Table :86
Project: HBI Mine
Monitoring Station: Rampur officer's Guest House

DATE OF SAMPLING	DAY(dB)	NIGHT(dB)
7-Apr-18	54	60.4
24-Apr-18	64.2	58.2
7-May-18	63.7	59.8
21-May-18	67.3	58.3
6-Jun-18	66.1	63.2
26-Jun-18	64.9	60.3
10-Jul-18	64.9	58.8
23-Jul-18	66.3	64.1
10-Aug-18	66.9	62.1
23-Aug-18	64.7	62.8
9-Sep-18	64.7	62
24-Sep-18	63.4	60.3
10-Oct-18	66.9	64.3
25-Oct-18	63.7	58.4
10-Nov-18	63.9	55.3
22-Nov-18	64.6	60.4
8-Dec-18	60.5	52.2
26-Dec-18	65.2	60.2
13-Jan-19	66.9	64.5
28-Jan-19	66.9	61
8-Feb-19	65.2	60.7
26-Feb-19	63.9	58.4
7-Mar-19	65.2	62.8
21-Mar-19	66.8	61.2
Brief Statistic (in dB)	Day	Night
Minimum	54.0	52.2
Maximum	67.3	64.5
Mean	64.6	60.4
Noise Standard	75	70



TABLES FOR EFFLUENT WATER QUALITY DATA

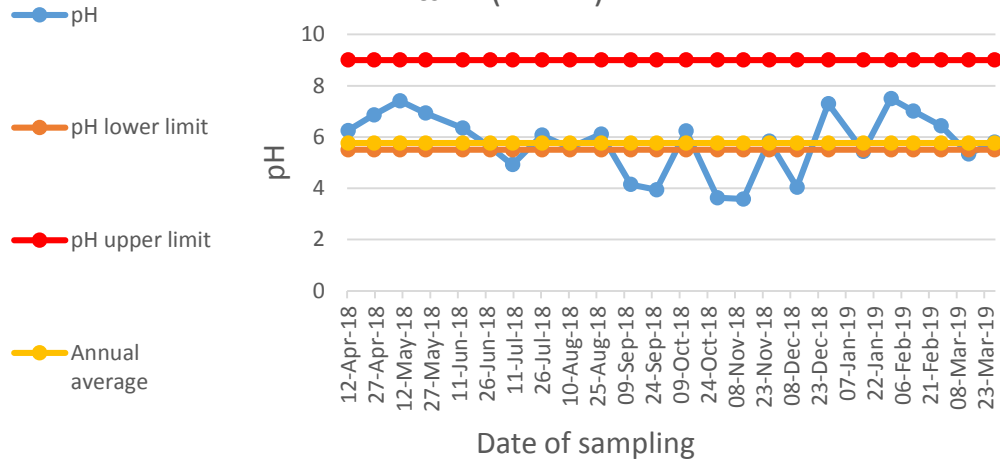
Table :87

Project: Samleswari OCP

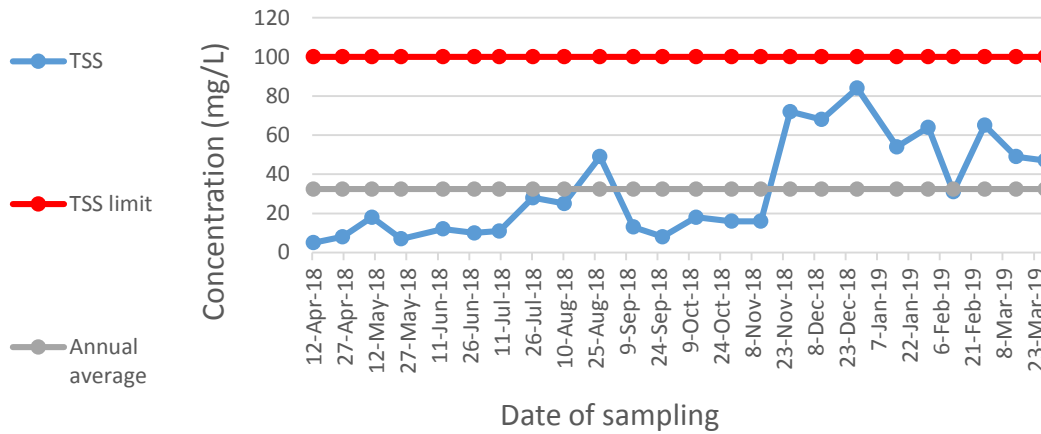
Monitoring Station: Outlet of Sedimentation tank (MDTP)

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	6.25	<4.0	5	12
26-Apr-18	6.86	<4.0	8	40
10-May-18	7.41	<4.0	18	16
24-May-18	6.93	5	7	36
13-Jun-18	6.35	<4.0	12	32
28-Jun-18	5.6	<4.0	10	
10-Jul-18	4.92	<4.0	11	12
26-Jul-18	6.07	<4.0	28	40
10-Aug-18	5.58	<4.0	25	16
27-Aug-18	6.11	<4.0	49	44
12-Sep-18	4.15	<4.0	13	60
26-Sep-18	3.94	<4.0	8	12
12-Oct-18	6.24	<4.0	18	24
29-Oct-18	3.63	<4.0	16	20
12-Nov-18	3.58	<4.0	16	8
26-Nov-18	5.84	<4.0	72	32
11-Dec-18	4.04	4.2	68	36
28-Dec-18	7.3	4.2	84	40
16-Jan-19	5.44	<4	54	32
31-Jan-19	7.5	<4	64	20
12-Feb-19	7.01	<4	31	16
27-Feb-19	6.44	<4	65	24
14-Mar-19	5.34	<4.0	49	16
28-Mar-19	5.8	<4.0	47	12

Graph 70: Showing for pH of Outlet of Sedimentation tank (MDTP)



Graph 71: Showing for TSS of Outlet of Sedimentation tank (MDTP)



Graph 72: Showing for COD of Outlet of Sedimentation tank (MDTP)

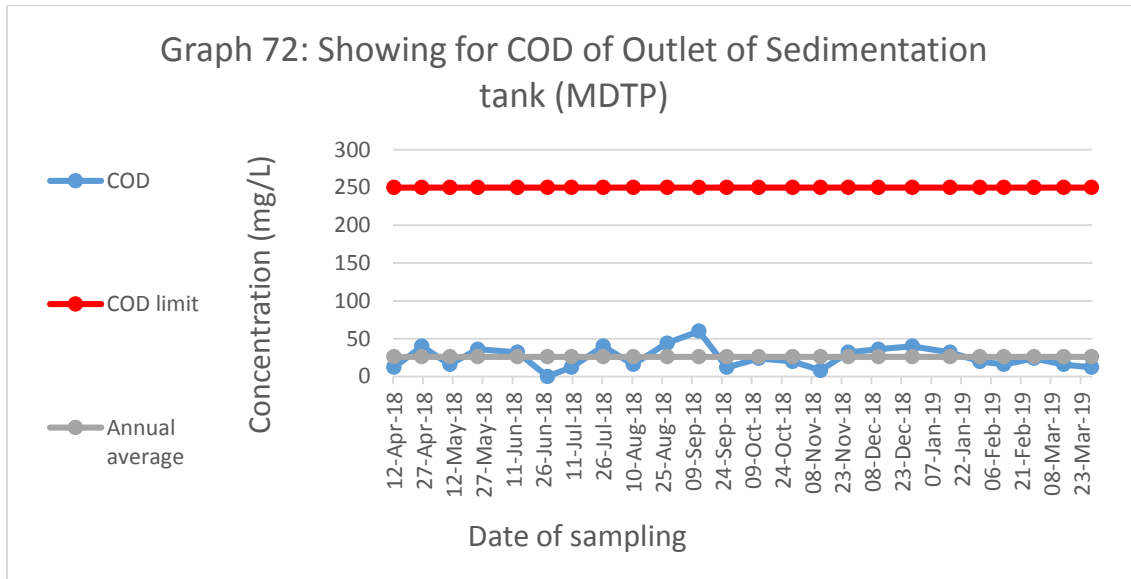
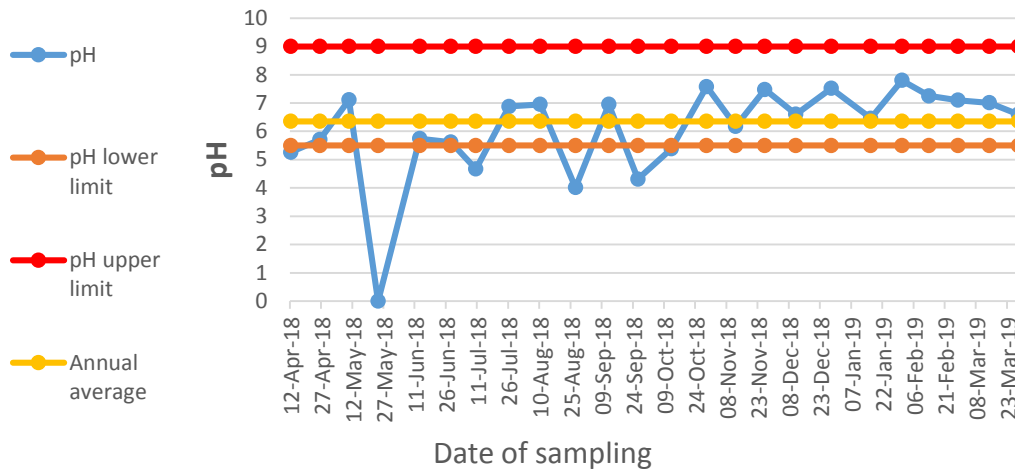


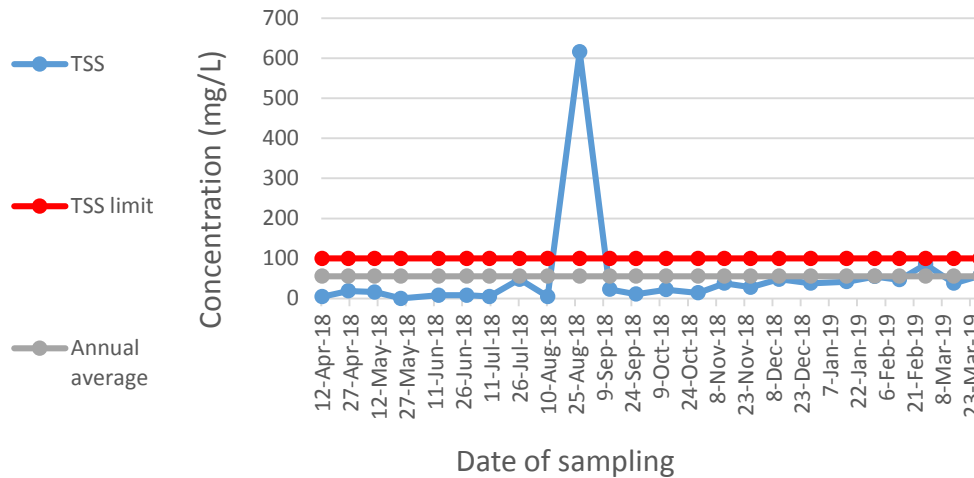
Table :88
Project: Samleswari OCP
Monitoring Station: O&G Trap Outlet

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	5.26	<4.0	4.36	40
26-Apr-18	5.71	<4.0	19	40
10-May-18	7.11	<4.0	16	24
24-May-18	Maintenance	Maintenance	Maintenance	Maintenance
13-Jun-18	5.74	<4.0	8	20
28-Jun-18	5.62	<4.0	8	36
10-Jul-18	4.67	<4.0	5	32
26-Jul-18	6.88	5.2	48	28
10-Aug-18	6.95	<4.0	5	16
27-Aug-18	4.01	7.6	616	404
12-Sep-18	6.95	<4.0	23	48
26-Sep-18	4.31	<4.0	10.8	44
12-Oct-18	5.38	<4.0	22	16
29-Oct-18	7.58	<4.0	14	12
12-Nov-18	6.18	<4.0	38	44
26-Nov-18	7.48	<4.0	28	16
11-Dec-18	6.6	<4.0	48	28
28-Dec-18	7.52	<4.0	38	16
16-Jan-19	6.46	<4	42	16
31-Jan-19	7.8	<4	55	32
13-Feb-19	7.25	<4	47	40
27-Feb-19	7.1	<4	85	36
14-Mar-19	7.01	<4.0	38	12
28-Mar-19	6.6	<4.0	57	16

Graph 73: Showing for pH of O&G Trap Outlet



Graph 74: Showing for TSS of O&G Trap Outlet



Graph 75: Showing for COD of O&G Trap Outlet

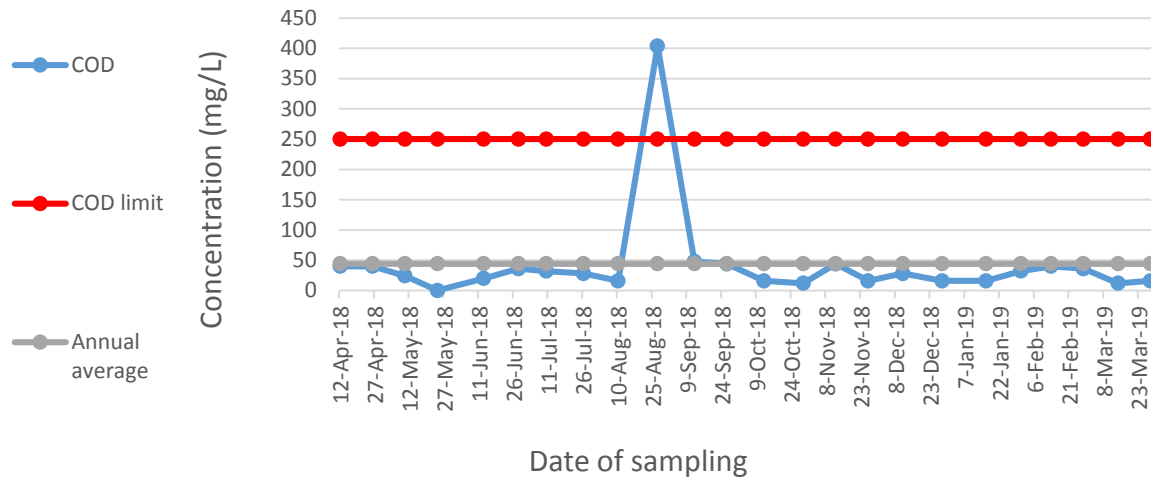
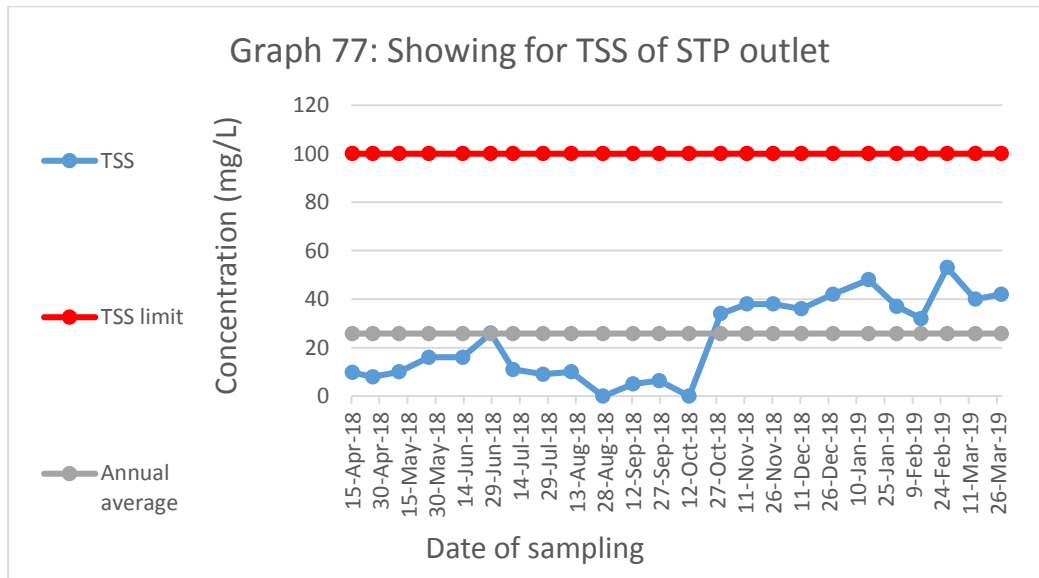
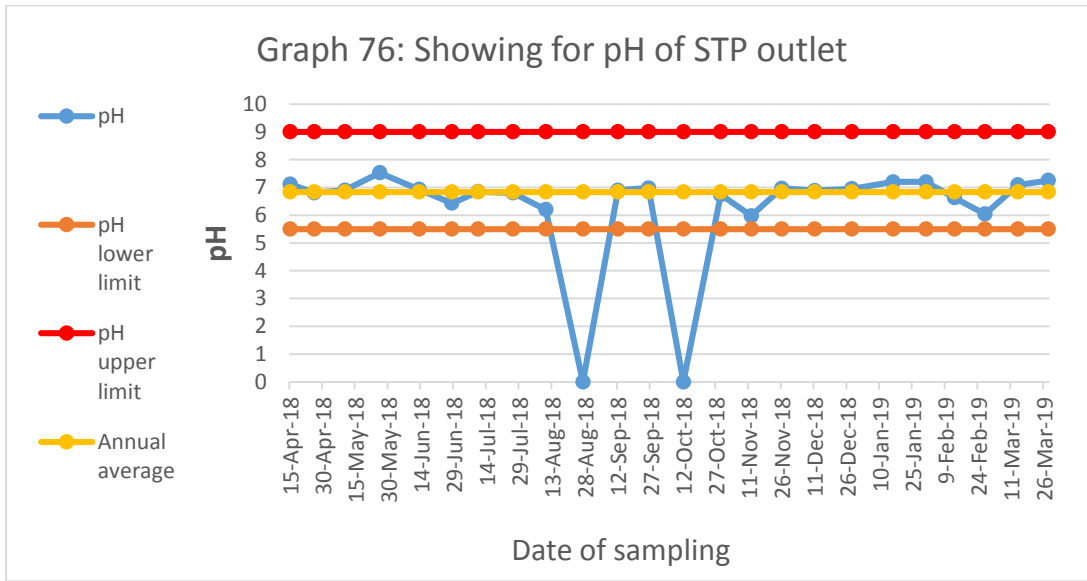


Table :89
Project: Samleswari OCP
Monitoring Station: STP outlet

Date of Sampling	pH	BOD(mg/l)	TSS(mg/l)
15-Apr-18	7.12	7	9.74
26-Apr-18	6.81	8	8
10-May-18	6.9	3.8	10
26-May-18	7.53	2.7	16
13-Jun-18	6.93	2.3	16
28-Jun-18	6.43	3.7	26
10-Jul-18	6.85	2.8	11
26-Jul-18	6.8	2.1	9
10-Aug-18	6.2	1.9	10
27-Aug-18	Pump Break Down		
12-Sep-18	6.9	1	5
26-Sep-18	6.98	2.2	6.4
12-Oct-18			
29-Oct-18	6.74	6	34
12-Nov-18	5.98	3	38
26-Nov-18	6.97	3.9	38
11-Dec-18	6.89	2.8	36
28-Dec-18	6.95	3.8	42
16-Jan-19	7.2	3.1	48
31-Jan-19	7.2	2.2	37
13-Feb-19	6.63	3.2	32
27-Feb-19	6.04	2.9	53
14-Mar-19	7.09	4.4	40
28-Mar-19	7.25	4.2	42



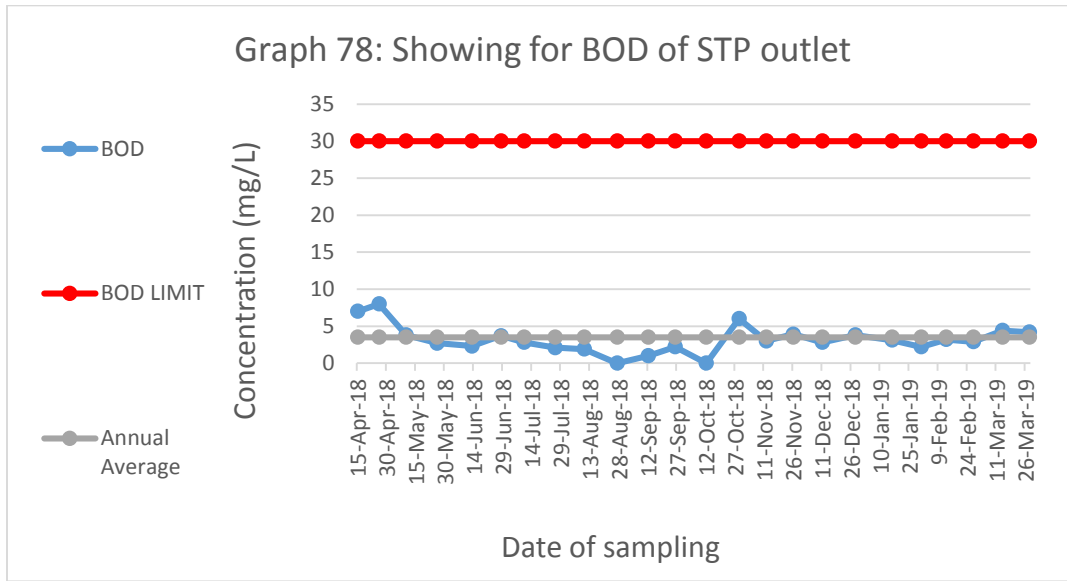


Table :90
Project: Samleswari OCP
Monitoring Station: Mine Sump Water

Date of Sampling	pH
29-Jun-18	7.62
11-Dec-18	3.75
14-Mar-19	4.12

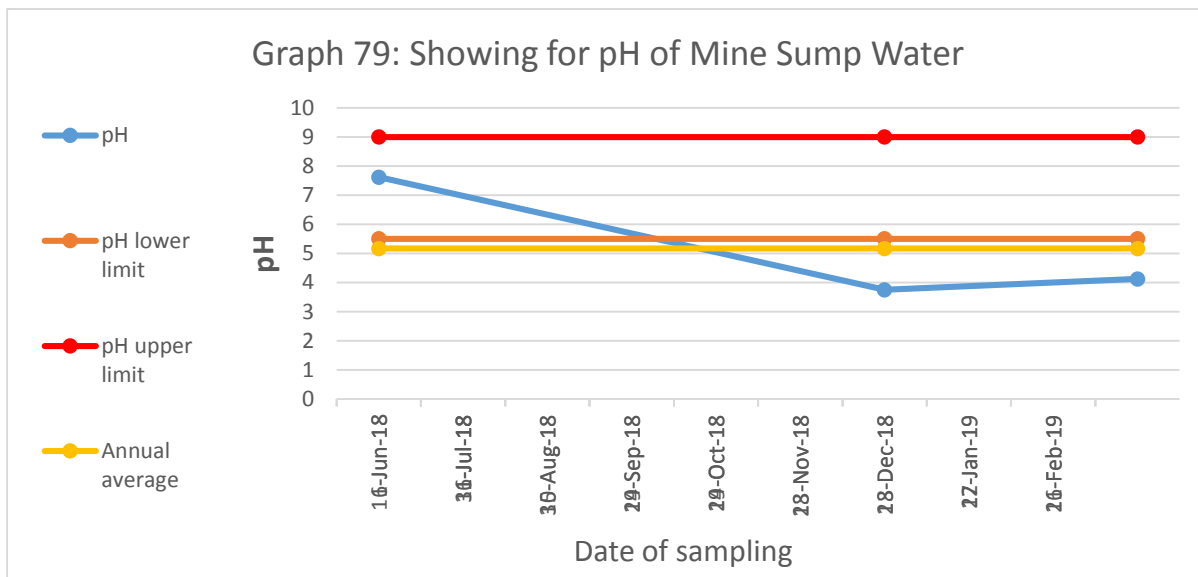
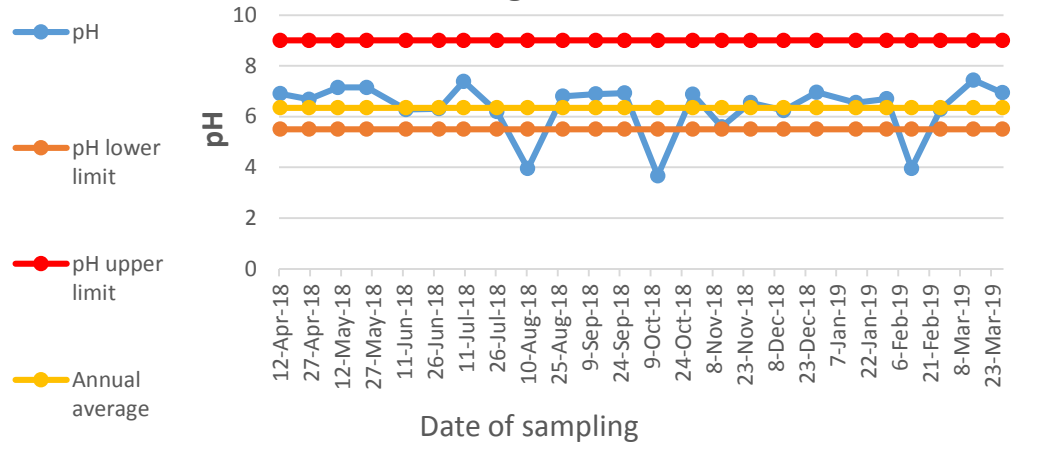


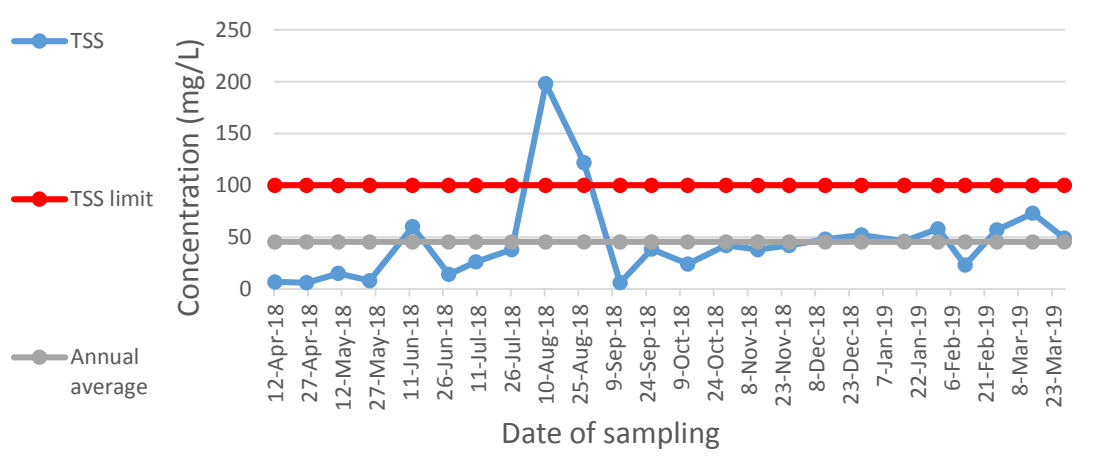
Table :91
Project: Lajkura OCP
Monitoring Station: u/s of Baghmara Nala at Discharge Point

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)
12-Apr-18	6.9	<4.0	6.8	12
26-Apr-18	6.68	<4.0	6	8
10-May-18	7.15	5	15	56
24-May-18	7.15	<4.0	8	76
12-Jun-18	6.28	<4.0	60	28
28-Jun-18	6.31	<4.0	14	16
10-Jul-18	7.39	<4.0	26	44
26-Jul-18	6.2	<4.0	38	28
10-Aug-18	3.95	6.4	198	40
27-Aug-18	6.8	<4.0	122	92
12-Sep-18	6.89	<4.0	6	28
26-Sep-18	6.93	<4.0	38.4	24
12-Oct-18	3.67	<4.0	24	36
29-Oct-18	6.88	<4.0	42	44
12-Nov-18	5.6	<4.0	38	24
26-Nov-18	6.55	<4.0	42	28
12-Dec-18	6.24	<4.0	48	20
28-Dec-18	6.96	<4.0	52	24
16-Jan-19	6.55	<4	46	16
31-Jan-19	6.7	<4	58	40
12-Feb-19	3.96	<4	23	12
26-Feb-19	6.29	<4	57	32
14-Mar-19	7.44	<4.0	73	20
28-Mar-19	6.94	<4.0	49	16

Graph 80: Showing for pH of u/s of Baghmara Nala at Discharge Point



Graph 81: showing for TSS of u/s of Baghmara Nala at Discharge Point



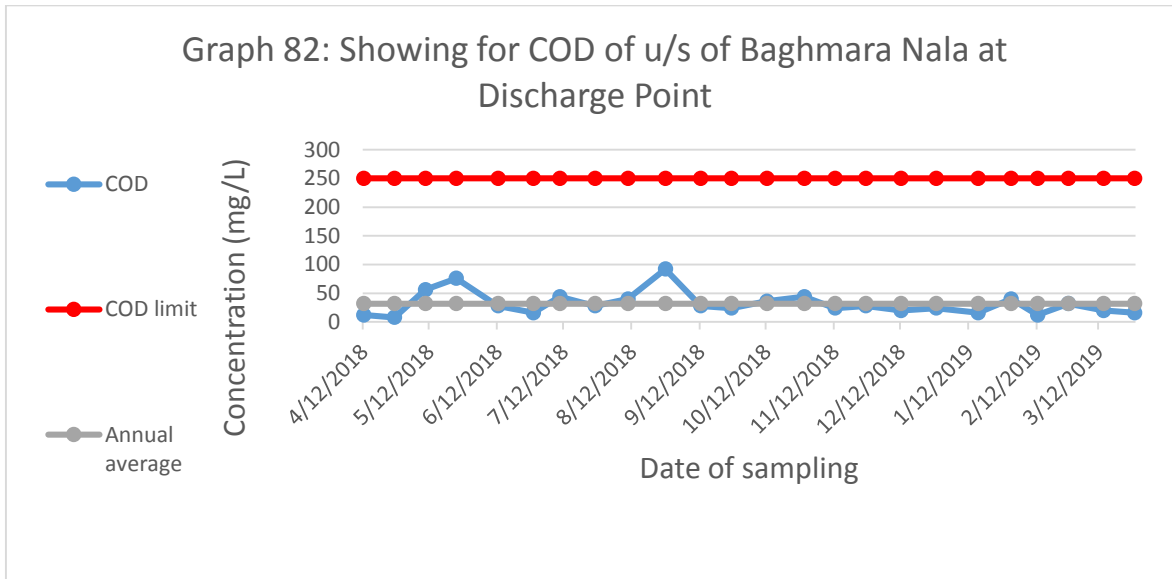
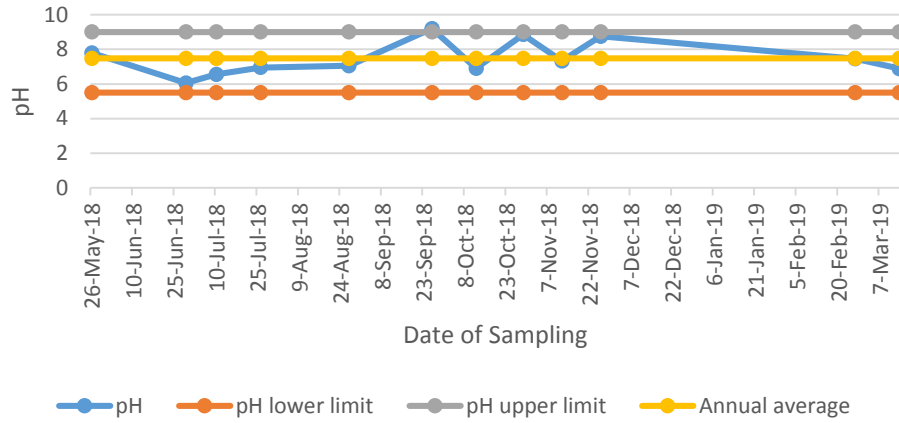


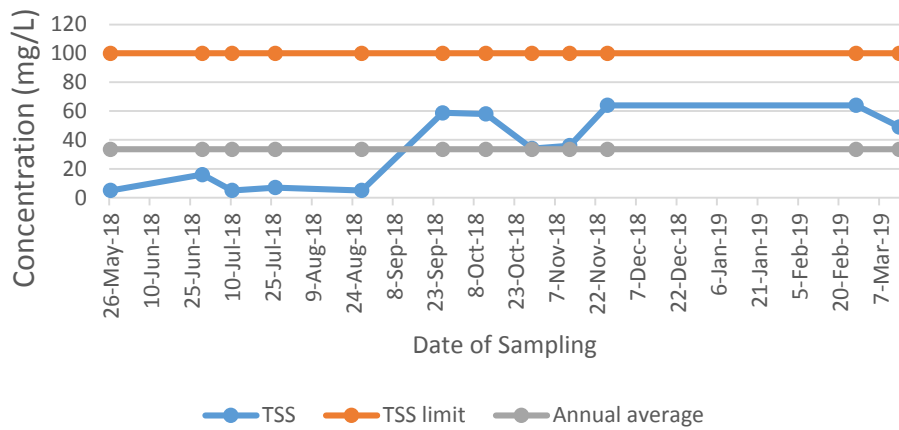
Table :92
Project: Lajkura OCP
Monitoring Station: Treated water from STP

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)	BOD(mg/l)
12-Apr-18	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
26-May-18	7.79		5		1.8
29-Jun-18	6.05	<4.0	16	60	1.6
10-Jul-18	6.55	<4.0	5	60	
26-Jul-18	6.95		7		3.2
27-Aug-18	7.05	<4.0	5	72	
12-Sep-18	Pump Break Down	Pump Break Down	Pump Break Down	Pump Break Down	
26-Sep-18	9.19	<4.0	58.8	40	
12-Oct-18	6.9		58		7
29-Oct-18	8.85	<4.0	34	28	
12-Nov-18	7.33		36		4
26-Nov-18	8.75	<4.0	64	44	
12-Dec-18	Pump break down	Pump break down	Pump break down	Pump break down	Pump break down
26-Feb-19	7.46		64		3.2
14-Mar-19	6.88		49		4.8
28-Mar-19	Dry	Dry	Dry	Dry	Dry

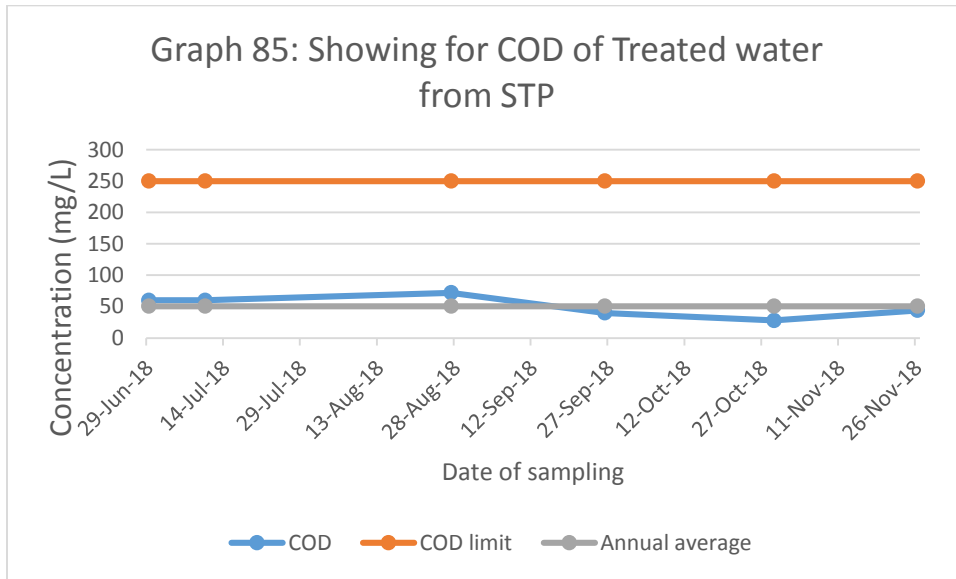
Graph 83: Showing for pH of Treated water from STP



Graph 84: Showing for TSS of Treated water from STP



Graph 85: Showing for COD of Treated water from STP



Graph 86: Showing for BOD of Treated water from STP

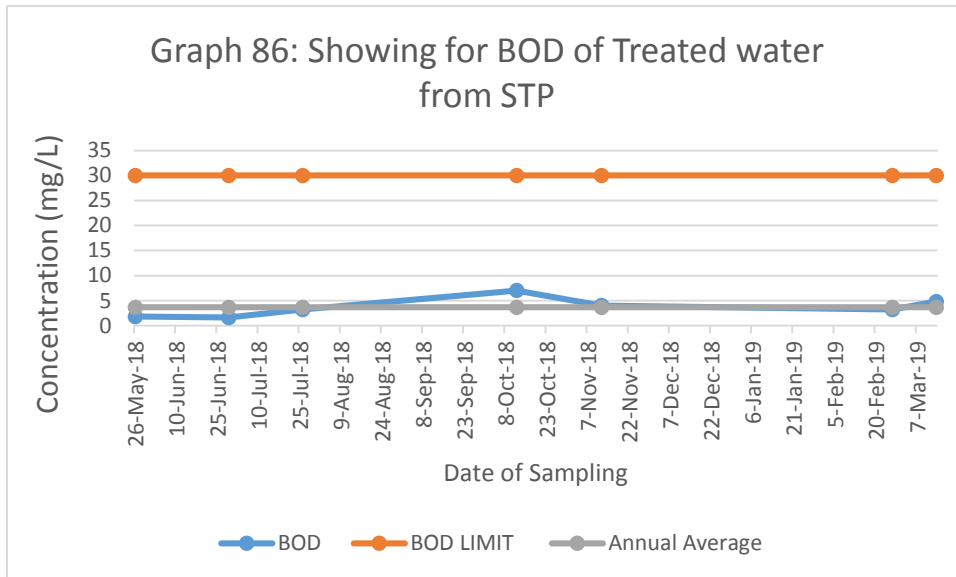
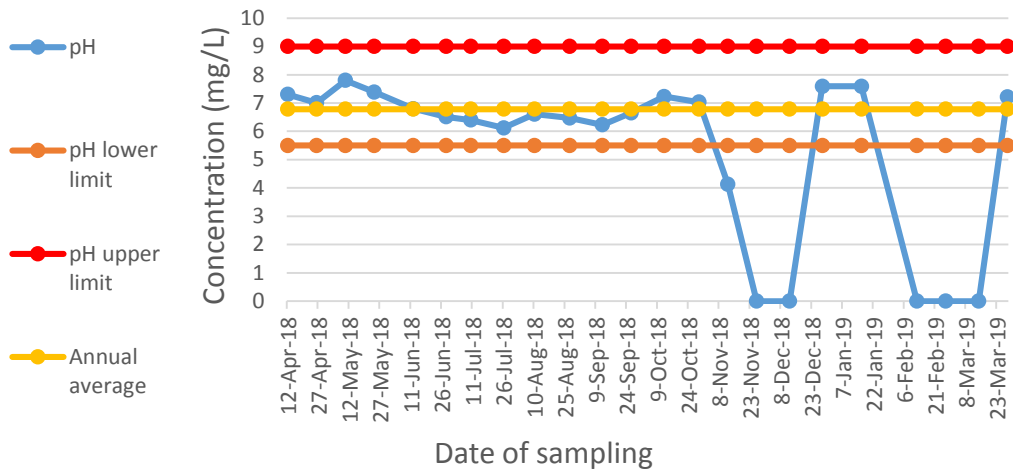


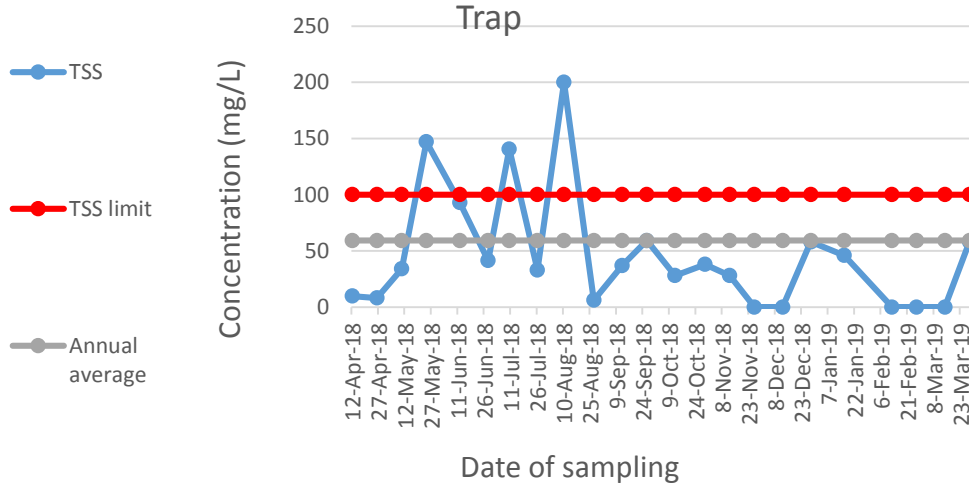
Table :93
Project: Lajkura OCP
Monitoring Station: Outlet of Oil & Grease Trap

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)
12-Apr-18	7.3	<4.0	9.8	52
26-Apr-18	7.01	<4.0	8	28
10-May-18	7.8	<4.0	34	56
24-May-18	7.39	<4.0	147	196
12-Jun-18	6.8	<4.0	93	72
28-Jun-18	6.51	6.9	41.4	44
10-Jul-18	6.4	<4.0	140.6	48
26-Jul-18	6.12	6.4	33	28
10-Aug-18	6.61	<4.0	200	8
27-Aug-18	6.47	<4.0	6	44
12-Sep-18	6.23	<4.0	37	28
26-Sep-18	6.65	<4.0	59.2	16
12-Oct-18	7.23	<4.0	28	24
29-Oct-18	7.03	<4.0	38	64
12-Nov-18	4.13	<4.0	28	16
26-Nov-18	DRY	DRY	DRY	DRY
12-Dec-18	Maintenance	Maintenance	Maintenance	Maintenance
28-Dec-18	7.59	<4.0	58	28
12-Feb-19	Dry	Dry	Dry	Dry
16-Jan-19	7.59	<4	46	24
26-Feb-19	Dry	Dry	Dry	Dry
14-Mar-19	Dry	Dry	Dry	Dry
28-Mar-19	7.22	<4.0	58	28

Graph 87: Showing for pH of Outlet of Oil & Grease Trap



Graph 88: Showing for TSS of Outlet of Oil & Grease Trap



Graph 89: Showing for COD of Outlet of Oil & Grease Trap

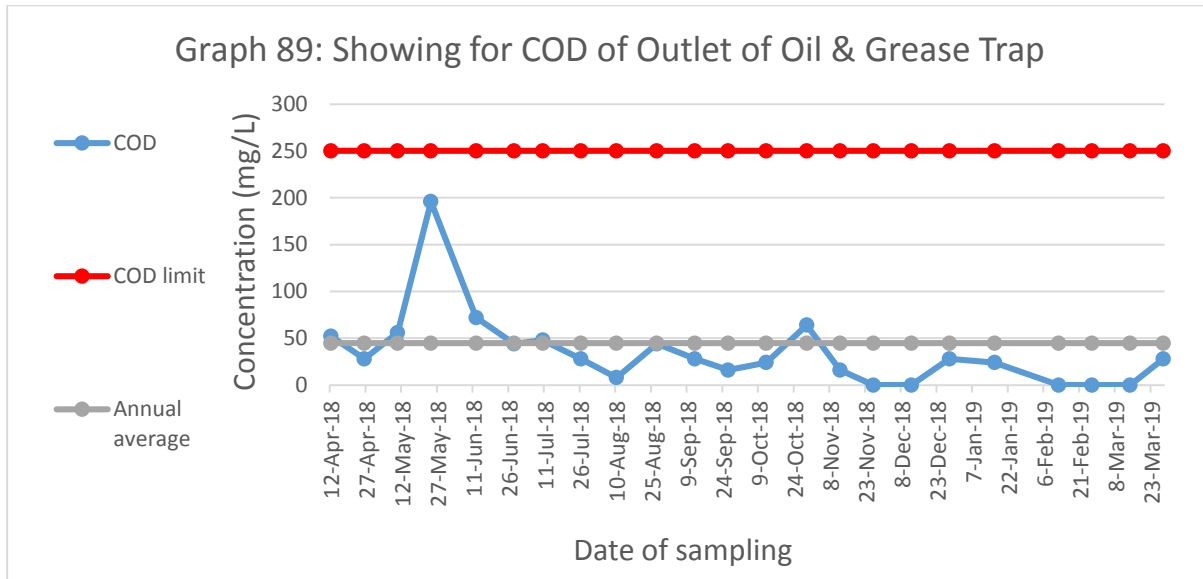
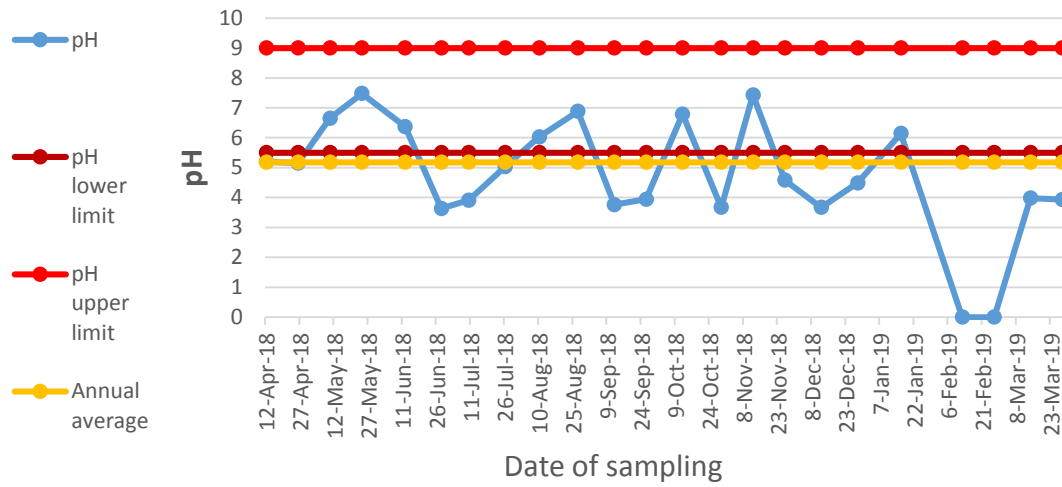


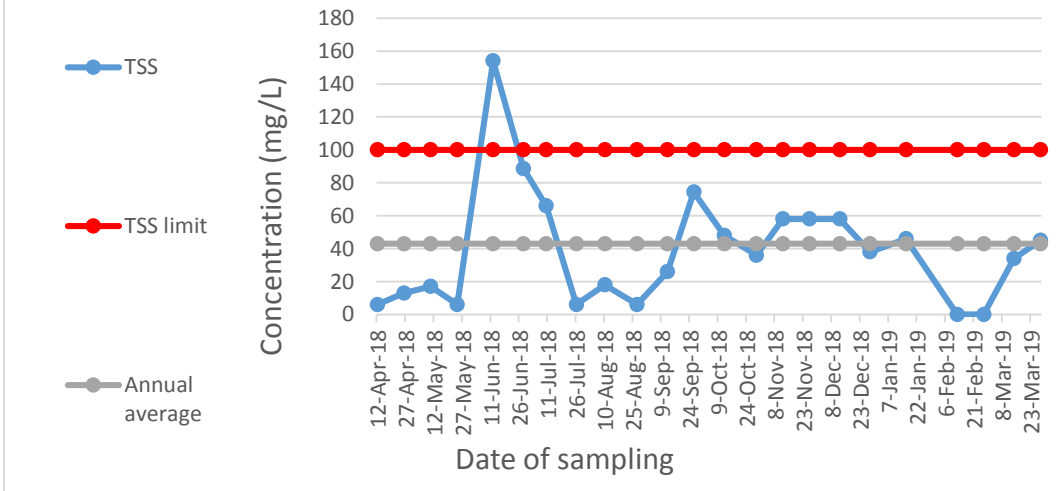
Table :94
Project: Lajkura OCP
Monitoring Station: Outlet of MDTP

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)
12-Apr-18	5.2	<4.0	6.04	60
26-Apr-18	5.15	<4.0	13	24
10-May-18	6.65	<4.0	17	88
24-May-18	7.48	<4.0	6	28
12-Jun-18	6.37	<4.0	154	16
28-Jun-18	3.63	5.2	88.6	104
10-Jul-18	3.91	<4.0	66	24
26-Jul-18	5.03	<4.0	6	60
10-Aug-18	6.03	<4.0	18	12
27-Aug-18	6.88	<4.0	6	48
12-Sep-18	3.76	<4.0	26	24
26-Sep-18	3.94	<4.0	74.4	16
12-Oct-18	6.79	<4.0	48	32
29-Oct-18	3.67	<4.0	36	56
12-Nov-18	7.43	<4.0	58	32
26-Nov-18	4.58	<4.0	58	20
12-Dec-18	3.67	<4.0	58	28
28-Dec-18	4.49	<4.0	38	20
16-Jan-19	6.14	<4	46	56
12-Feb-19	Dry	Dry	Dry	Dry
26-Feb-19	Dry	Dry	Dry	Dry
14-Mar-19	3.98	<4.0	34	12
28-Mar-19	3.93	<4.0	45	20

Graph 90: Showing for pH of Outlet of MDTP



Graph 91: Showing for TSS of Outlet of MDTP



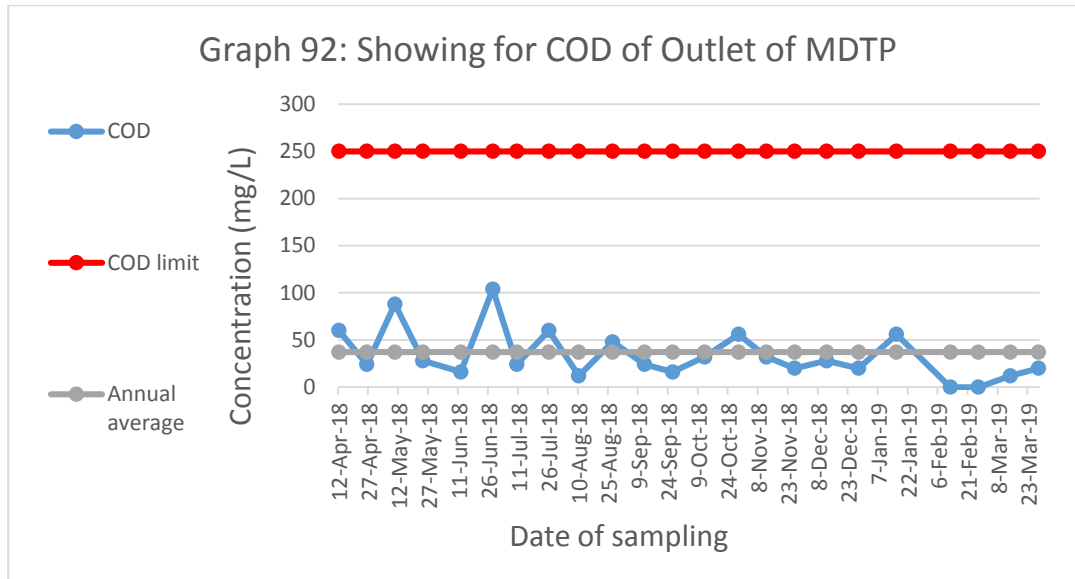


Table :95
Project: Lajkura OCP
Monitoring Station: Mine sump water

Date of Sampling	pH
29-Jun-18	5.12
16-Apr-18	7.22
10-Jul-18	3.92
10-Aug-18	6.42
12-Sep-18	4.03
12-Oct-18	6.95
12-Nov-18	7.16
12-Dec-18	3.85
16-Jan-19	3.7
12-Feb-19	6.31
14-Mar-19	3.75

Graph 93: Showing for pH of Mine sump water

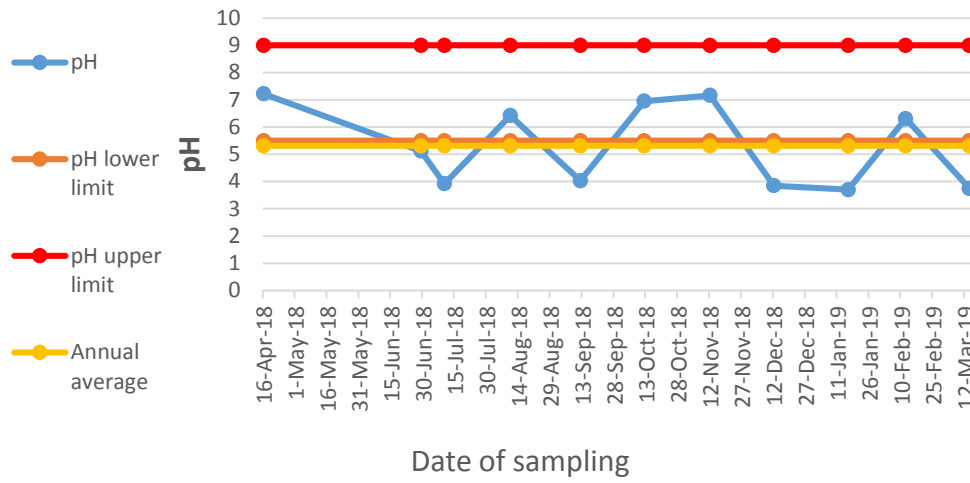
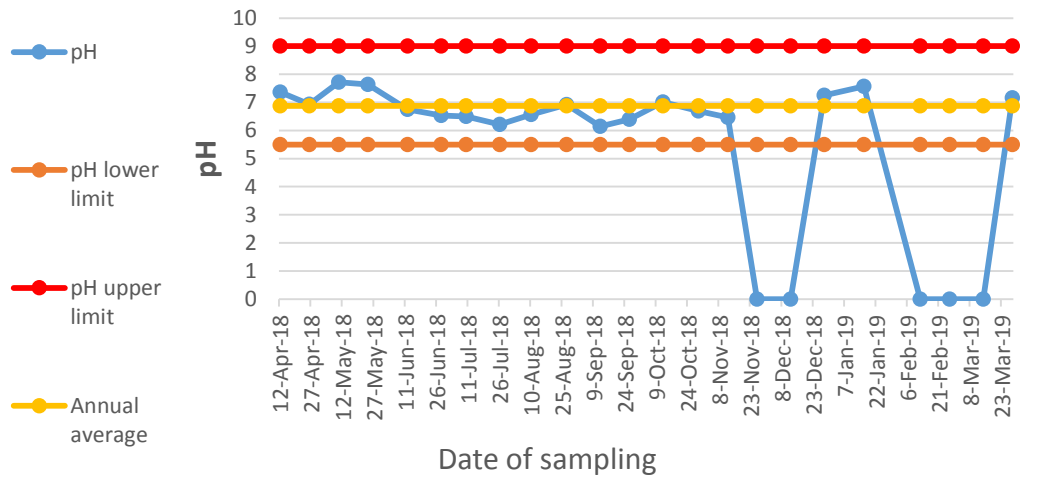


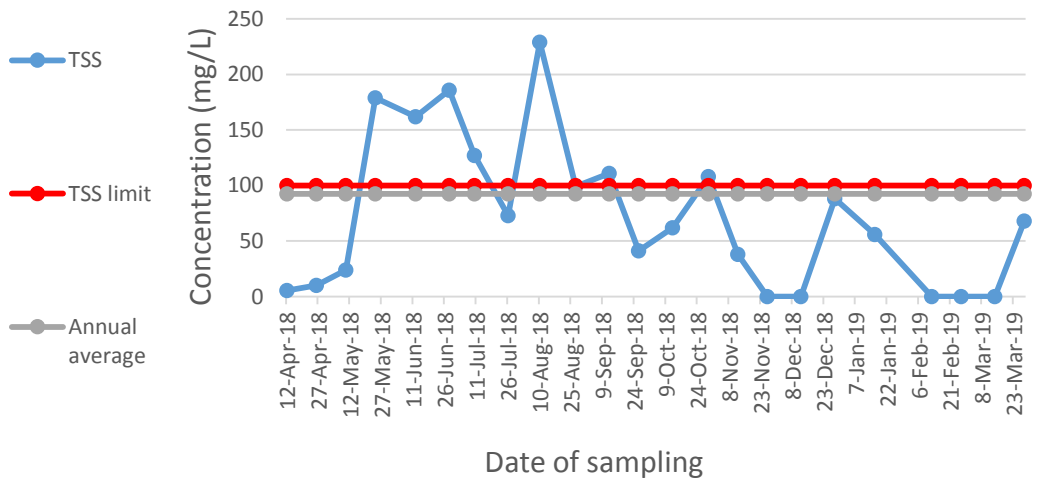
Table :96
Project: Lajkura OCP
Monitoring Station: Inlet of Oil & Grease Trap

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)
12-Apr-18	7.37	<4.0	5.4	72
26-Apr-18	6.93	<4.0	10	36
10-May-18	7.72	<4.0	24	56
24-May-18	7.64	5	179	52
12-Jun-18	6.75	7	162	32
28-Jun-18	6.53	7.6	185.8	246
10-Jul-18	6.5	<4.0	127	40
26-Jul-18	6.22	5.6	73	92
10-Aug-18	6.57	<4.0	229	12
27-Aug-18	6.92	<4.0	99	400
12-Sep-18	6.15	<4.0	111	320
26-Sep-18	6.4	<4.0	41.2	48
12-Oct-18	7.01	<4.0	62	56
29-Oct-18	6.69	<4.0	108	184
12-Nov-18	6.46	<4.0	38	20
26-Nov-18	DRY	DRY	DRY	DRY
12-Dec-18	Maintenance	Maintenance	Maintenance	Maintenance
28-Dec-18	7.25	5	88	76
16-Jan-19	7.57	<4	56	32
12-Feb-19	Dry	Dry	Dry	Dry
26-Feb-19	Dry	Dry	Dry	Dry
14-Mar-19	Dry	Dry	Dry	Dry
28-Mar-19	7.16	<4.0	68	44

Graph 94: Showing for pH of Inlet of Oil & Grease Trap



Graph 95: Showing for TSS of Inlet of Oil & Grease Trap



Graph 96: Showing for COD of Inlet of Oil & Grease Trap

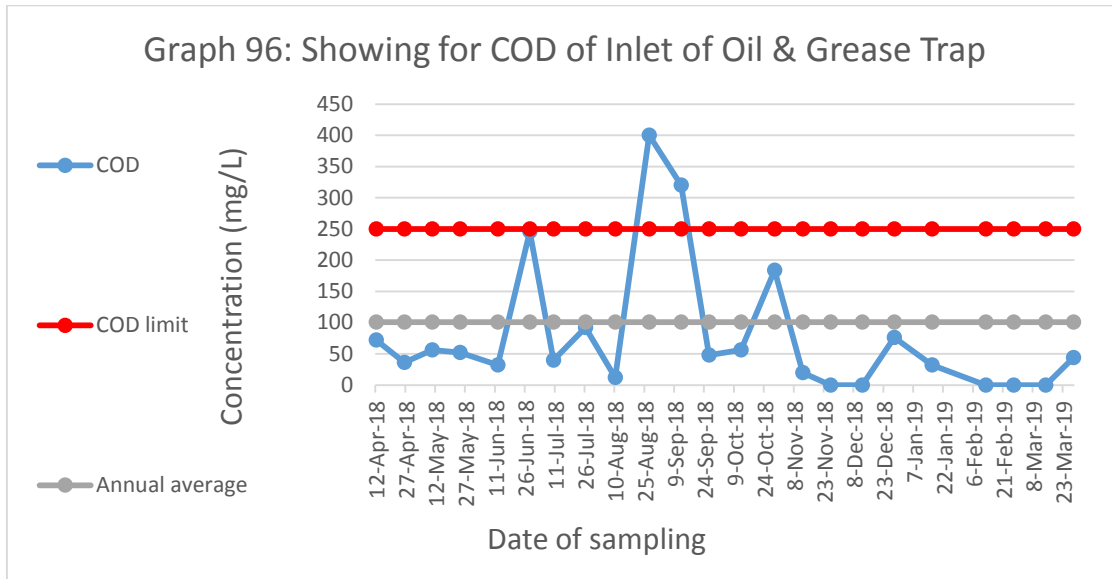
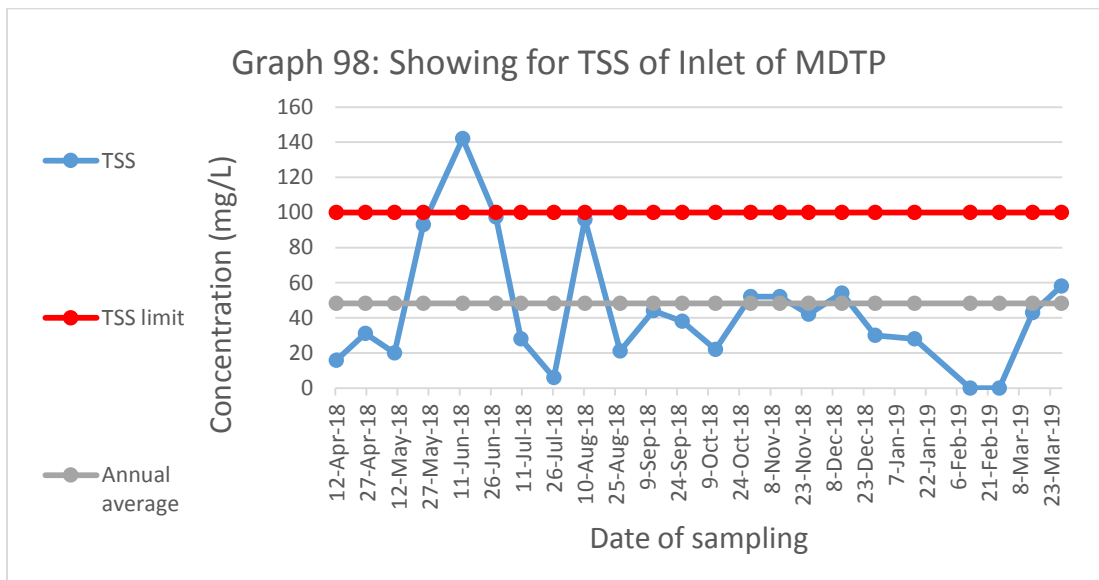
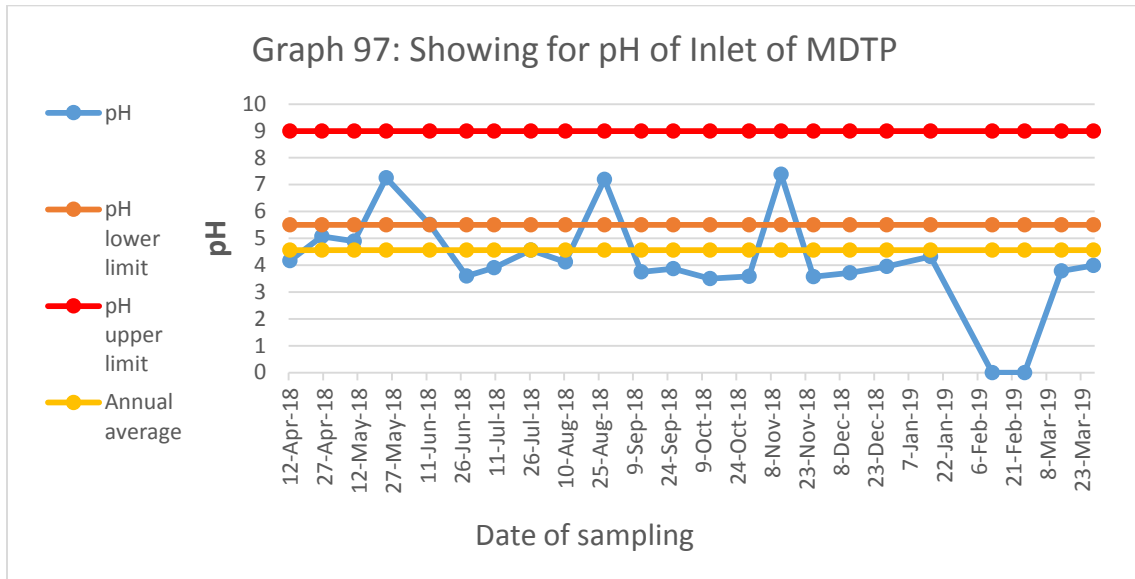


Table :97
Project: Lajkura OCP
Monitoring Station: Inlet of MDTP

Date of Sampling	pH	Oil & Grease (mg/l)	TSS (mg/l)	COD (mg/l)
12-Apr-18	4.17	<4.0	15.86	72
26-Apr-18	5.07	<4.0	31	36
10-May-18	4.89	<4.0	20	48
24-May-18	7.25	<4.0	93	96
12-Jun-18	5.52	8	142	228
28-Jun-18	3.6	5.8	97.4	108
10-Jul-18	3.91	5.4	28	52
26-Jul-18	4.56	<4.0	6	132
10-Aug-18	4.12	<4.0	96	40
27-Aug-18	7.19	<4.0	21	56
12-Sep-18	3.75	<4.0	44	56
26-Sep-18	3.87	<4.0	38	20
12-Oct-18	3.5	<4.0	22	28
29-Oct-18	3.59	<4.0	52	60
12-Nov-18	7.39	<4.0	52	24
26-Nov-18	3.57	<4.0	42	32
12-Dec-18	3.72	<4.0	54	24
28-Dec-18	3.96	<4.0	30	16
16-Jan-19	4.32	<4	28	24
12-Feb-19	Dry	Dry	Dry	Dry
26-Feb-19	Dry	Dry	Dry	Dry
14-Mar-19	3.79	<4.0	43	16
28-Mar-19	3.99	<4.0	58	32



Graph 99: Showing for COD of Inlet of MDTP

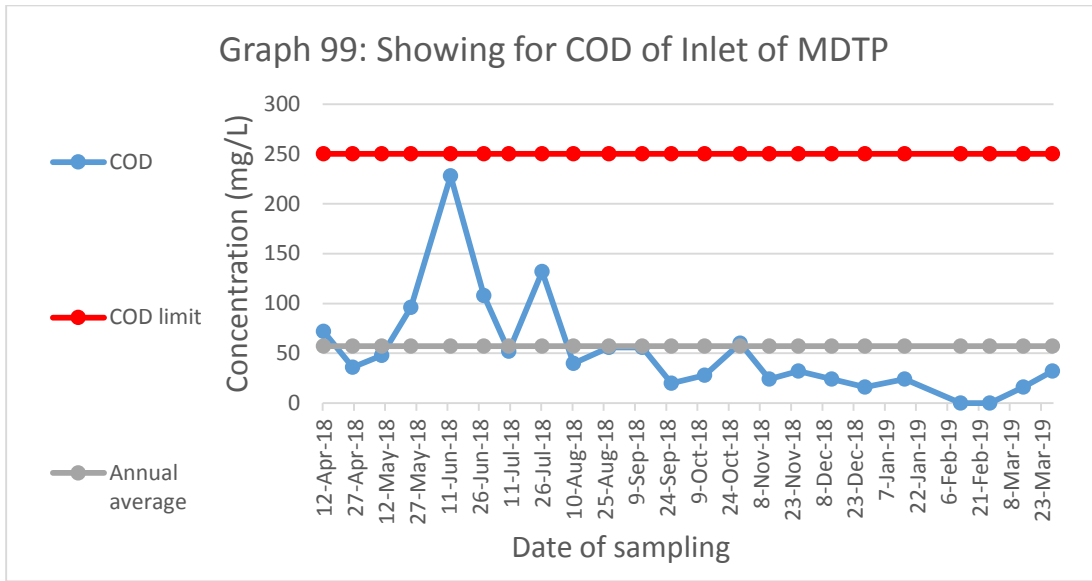
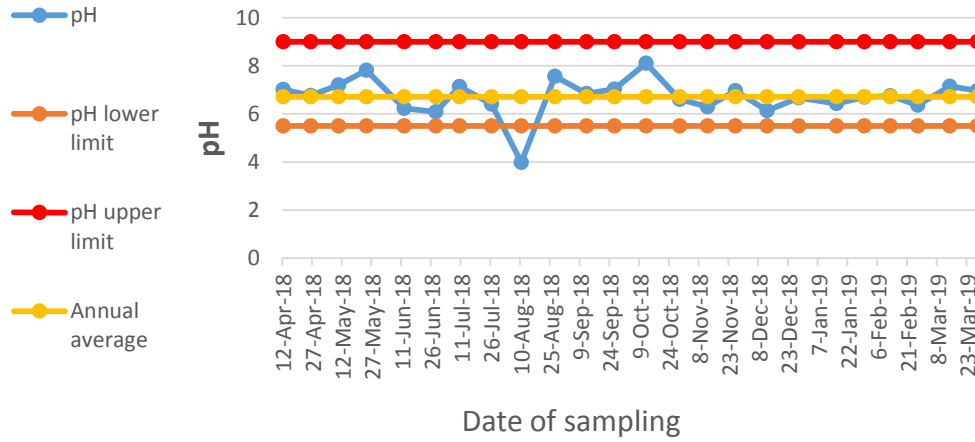


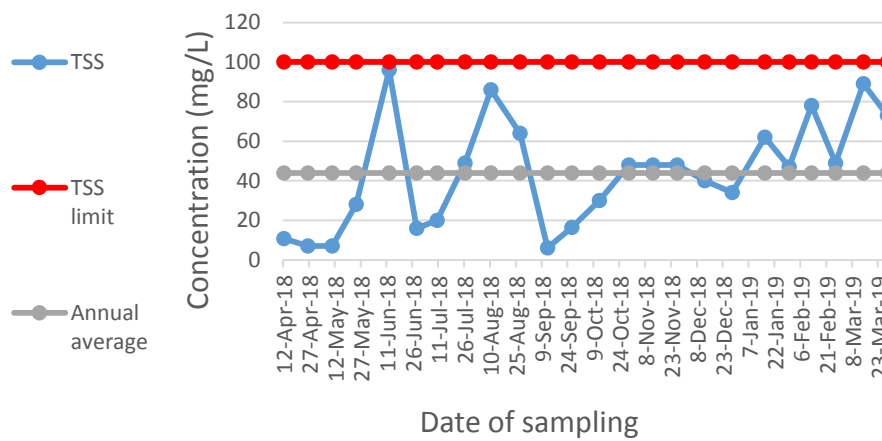
Table: 98
Project: Lajkura OCP
Monitoring Station: d/s of Baghmara Nala at Discharge Point

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	7.02	<4.0	10.82	36
26-Apr-18	6.76	<4.0	7	56
10-May-18	7.2	<4.0	7	16
24-May-18	7.82	<4.0	28	40
12-Jun-18	6.23	<4.0	96	44
28-Jun-18	6.08	<4.0	16	48
10-Jul-18	7.14	<4.0	20	60
26-Jul-18	6.41	4.8	49	20
10-Aug-18	3.98	<4.0	86	12
27-Aug-18	7.57	<4.0	64	76
12-Sep-18	6.84	<4.0	6	40
26-Sep-18	7.03	<4.0	16.4	12
12-Oct-18	8.11	<4.0	30	24
29-Oct-18	6.6	<4.0	48	52
12-Nov-18	6.3	<4.0	48	36
26-Nov-18	6.96	<4.0	48	32
12-Dec-18	6.14	<4.0	40	16
28-Dec-18	6.67	<4.0	34	16
16-Jan-19	6.43	<4	62	28
30-Jan-19	6.7	<4	47	28
12-Feb-19	6.75	<4	78	96
26-Feb-19	6.37	<4	49	16
14-Mar-19	7.15	<4.0	89	24
28-Mar-19	6.96	<4.0	73	24

Graph 100: Showing for pH of d/s of Baghmara Nala at Discharge Point



Graph 101: Showing for TSS of d/s of Baghmara Nala at Discharge Point



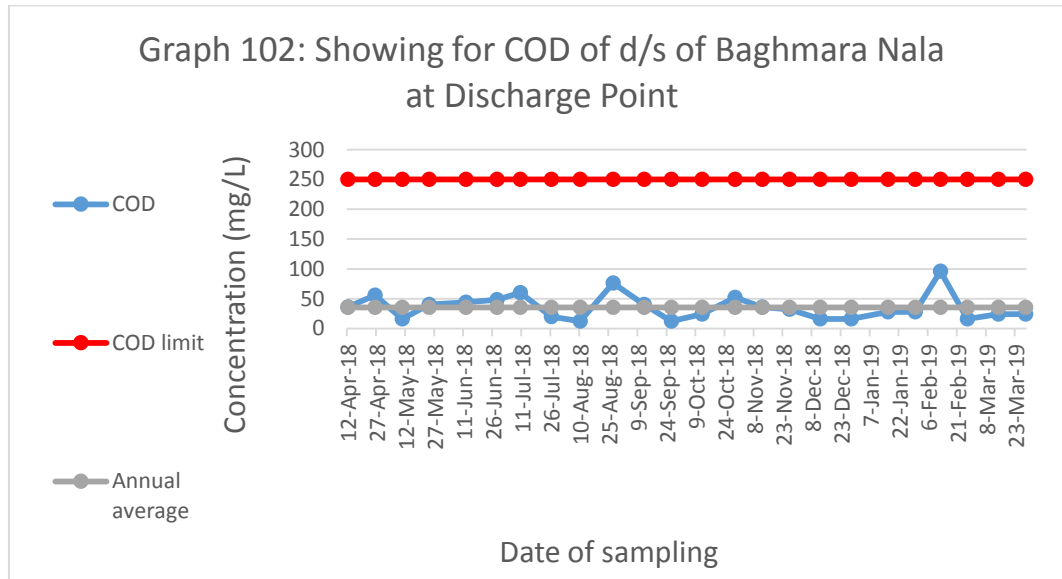
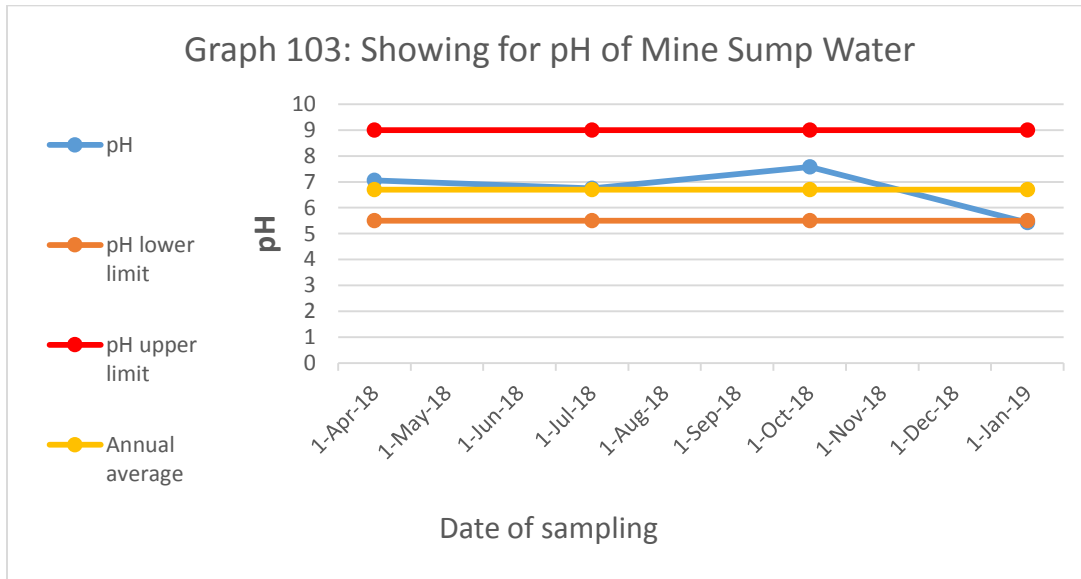


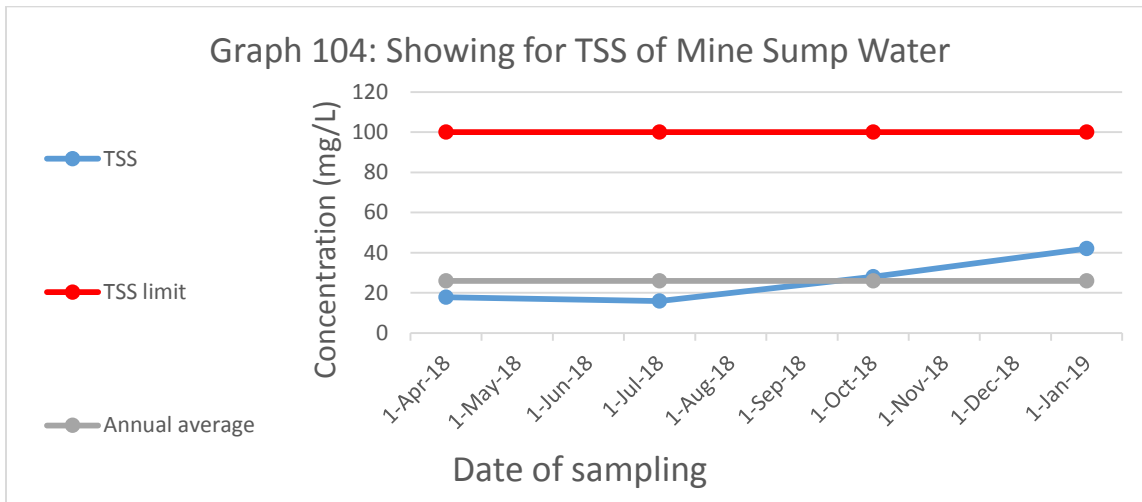
Table :99
Project: Lakhanpur OCP
Monitoring Station: Mine Sump water

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	7.06	<4.0	17.84	168
12-Jul-18	6.75	5.6	16	12
13-Oct-18	7.57	<4.0	28	40
17-Jan-19	5.43	<4.0	42	16

Graph 103: Showing for pH of Mine Sump Water



Graph 104: Showing for TSS of Mine Sump Water



Graph 105: Showing for COD of Mine Sump Water

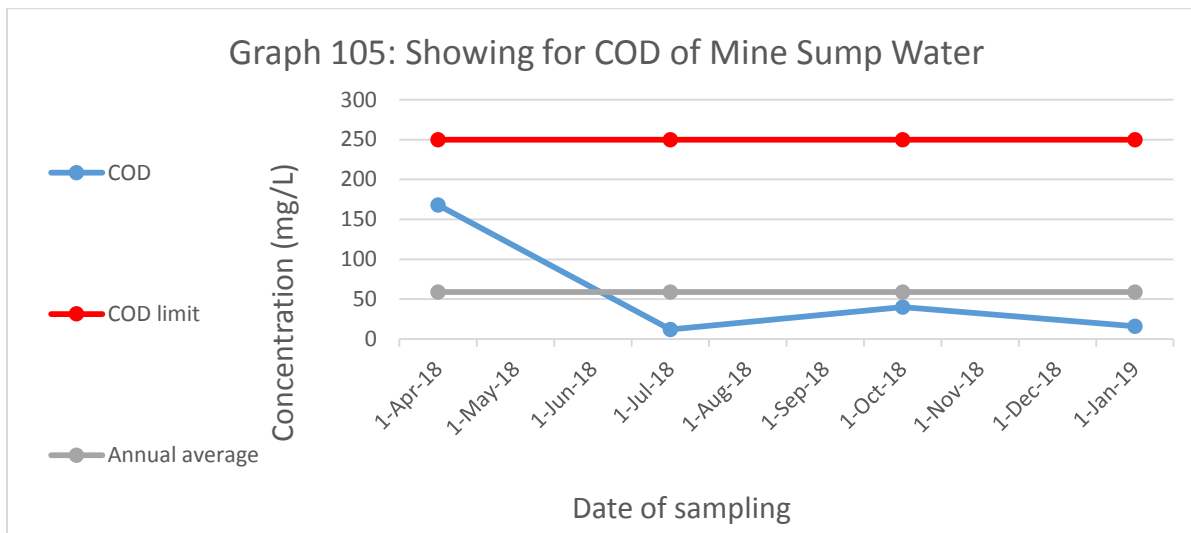
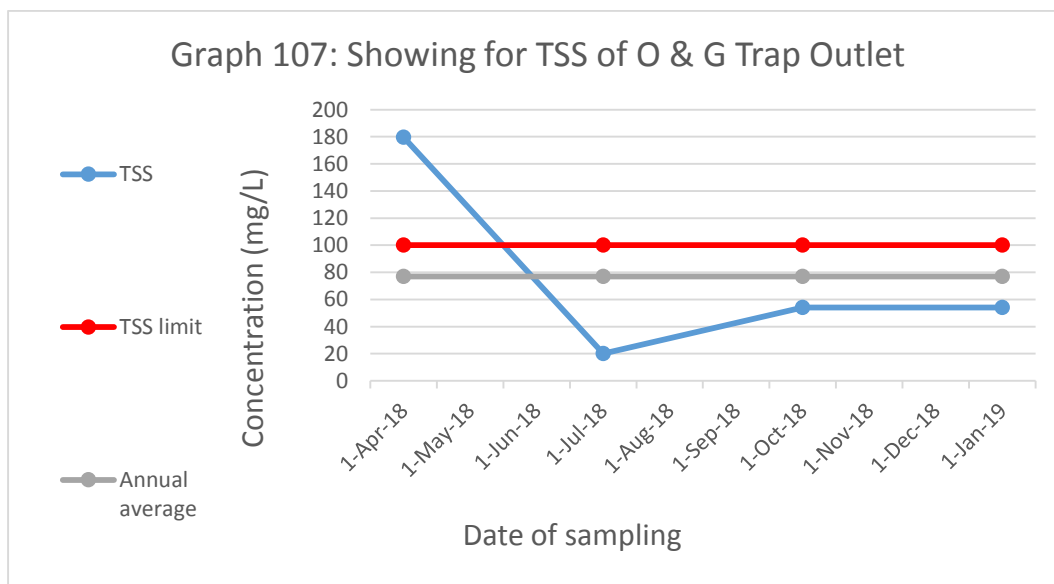
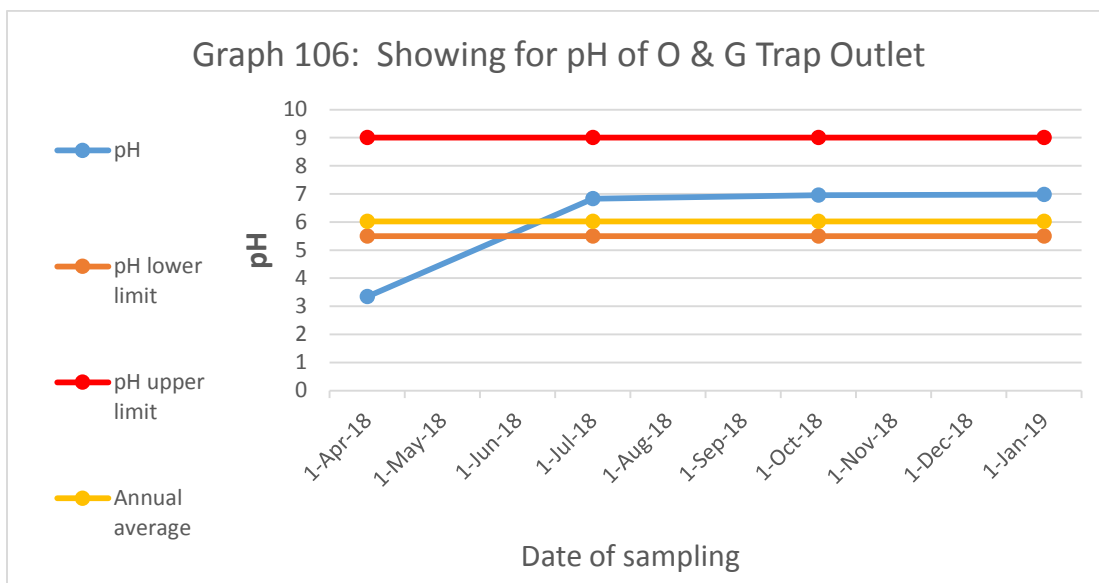


Table :100
Project: Lakhanpur OCP
Monitoring Station: O & G Trap Outlet

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	3.34	<4.0	179.62	268
12-Jul-18	6.83	4.8	20	72
13-Oct-18	6.95	<4.0	54	48
17-Jan-19	6.98	<4.0	54	24



Graph 108: Showing for COD of O & G Trap Outlet

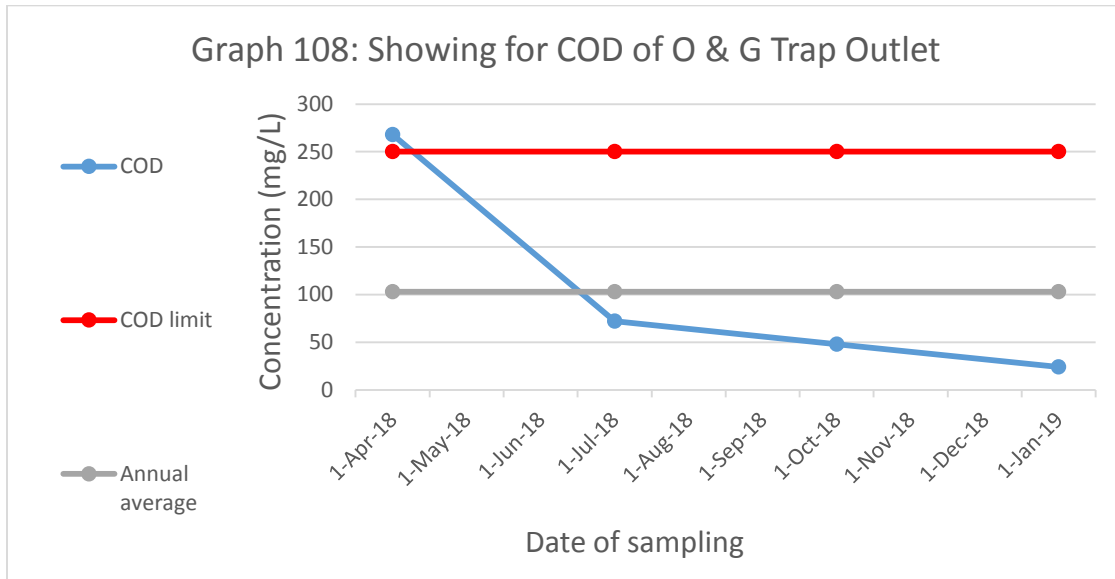
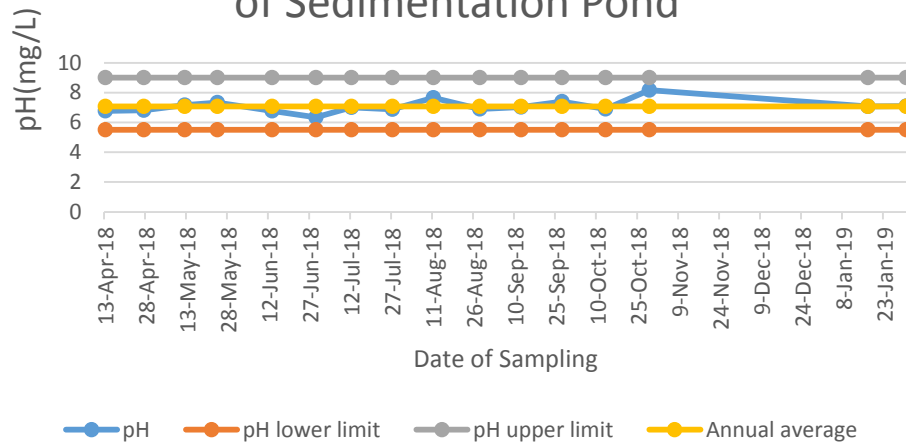


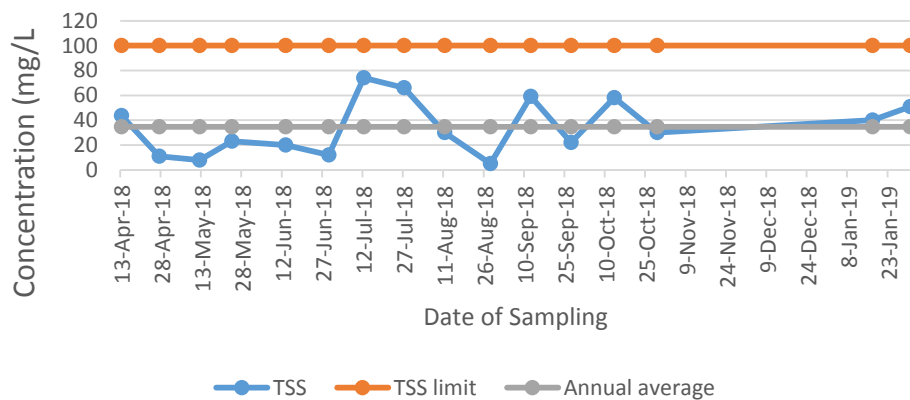
Table :101
Project: Lakhanpur OCP
Monitoring Station: Outlet of Sedimentation Pond

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	6.78	<4.0	43.7	44
27-Apr-18	6.81	<4.0	11	24
12-May-18	7.16	<4.0	8	36
24-May-18	7.32	<4.0	23	40
13-Jun-18	6.78	<4.0	20	48
29-Jun-18	6.34	<4.0	12	12
12-Jul-18	7	<4.0	74	20
27-Jul-18	6.88	6	66	36
11-Aug-18	7.65	5.4	30	12
28-Aug-18	6.9	<4.0	5	44
12-Sep-18	7.02	4.8	59	44
27-Sep-18	7.4	<4.0	22	36
13-Oct-18	6.89	<4.0	58	88
29-Oct-18	8.16	<4.0	30	24
12-Nov-18	DRY	DRY	DRY	DRY
27-Nov-18	DRY	DRY	DRY	DRY
12-Dec-18	DRY	DRY	DRY	DRY
28-Dec-18	DRY	DRY	DRY	DRY
17-Jan-19	7.07	<4.0	40	16
31-Jan-19	7.1	<4.0	51	44
26-Feb-19	Dry	Dry	Dry	Dry
14-Mar-19	Dry	Dry	Dry	Dry
28-Mar-19	Dry	Dry	Dry	Dry

Graph 109: Showing for pH of Outlet of Sedimentation Pond



Graph 110: Showing for TSS of Outlet of Sedimentation Pond



Graph 111: Showing for COD of Outlet of Sedimentation Pond

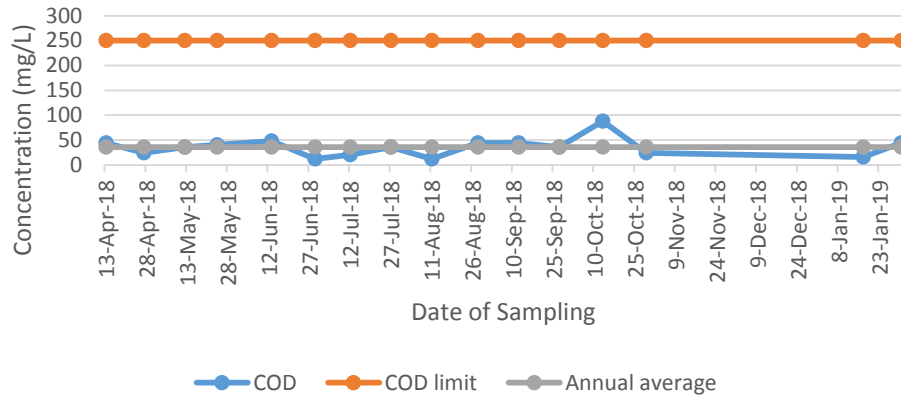
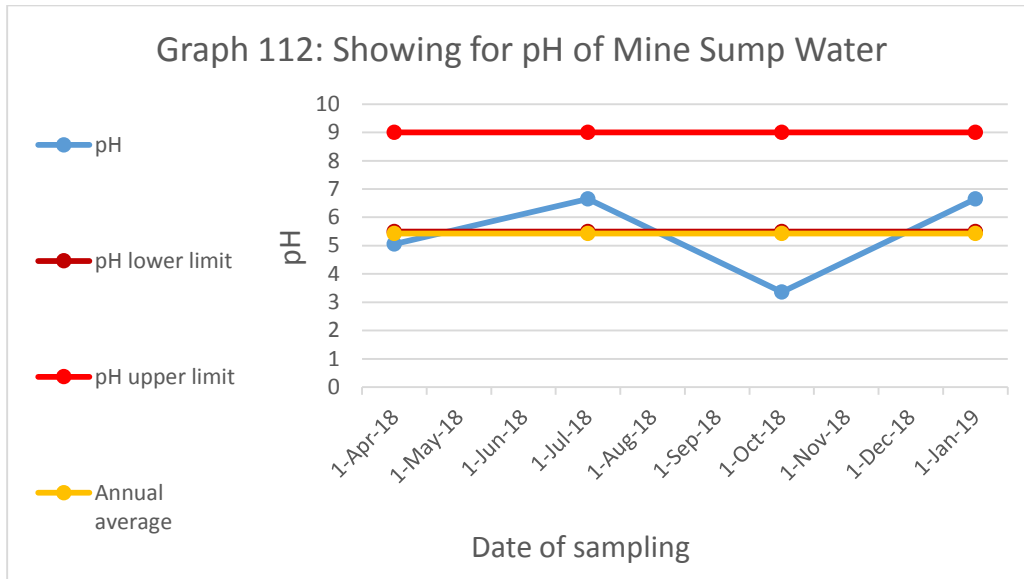


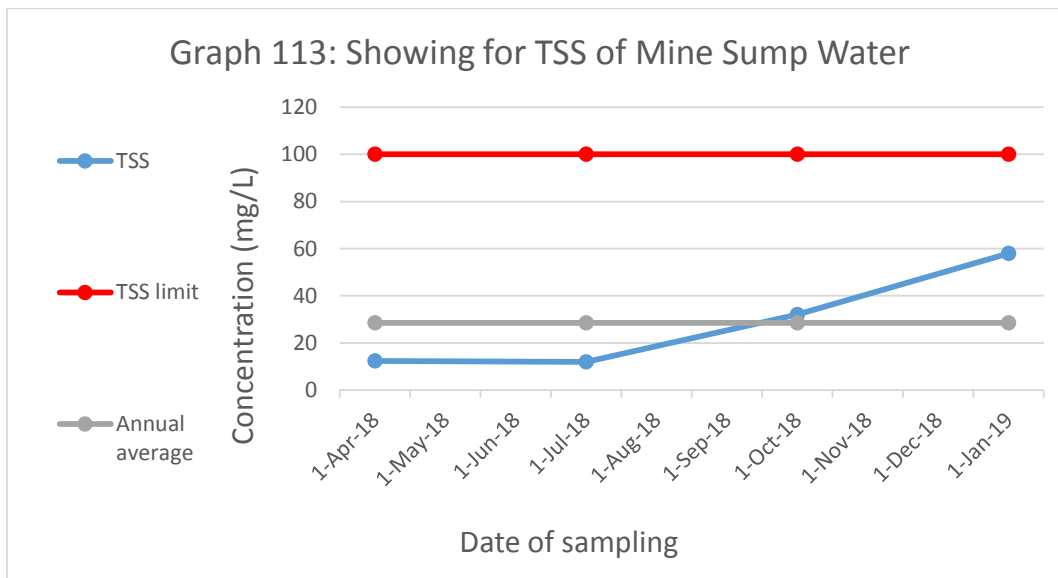
Table :102
Project: Lilari OCP
Monitoring Station: Mine Sump water

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	5.06	<4.0	12.32	8
12-Jul-18	6.65	<4.0	12	40
13-Oct-18	3.36	<4.0	32	40
16-Jan-19	6.65	<4.0	58	48

Graph 112: Showing for pH of Mine Sump Water



Graph 113: Showing for TSS of Mine Sump Water



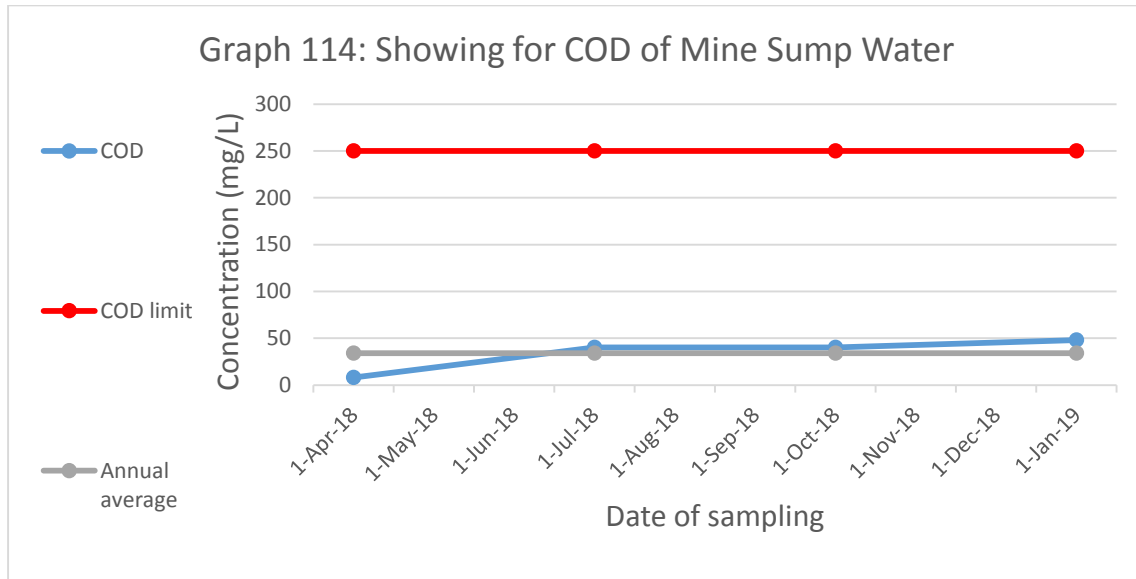
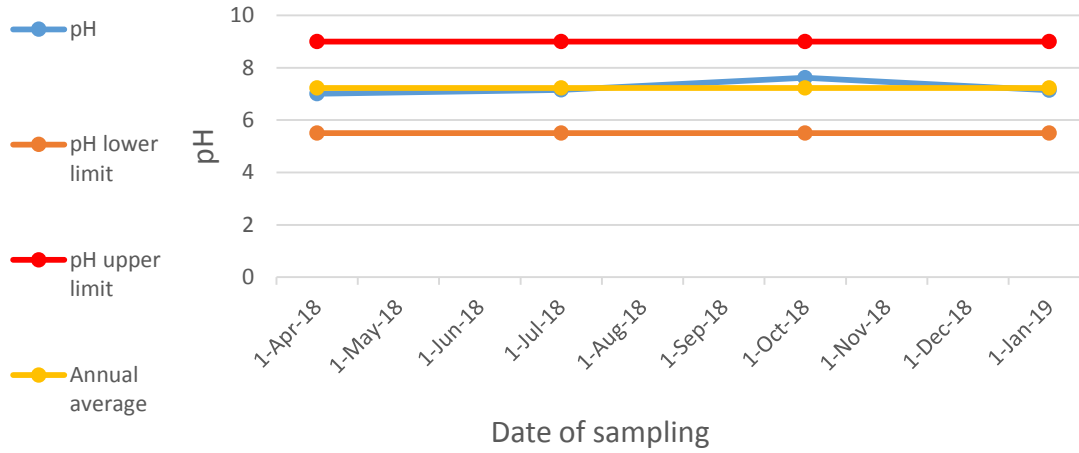


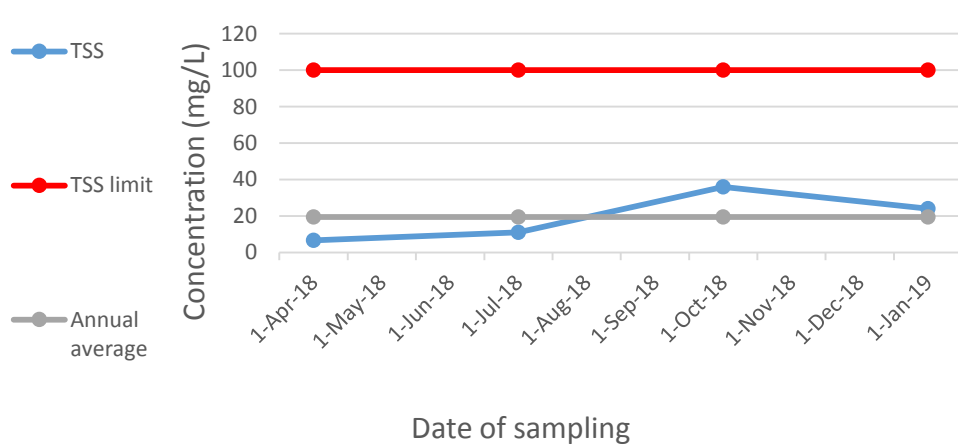
Table :103
Project: Belpahar OCP
Monitoring Station: Clear water Tank of Sedimentation Tank

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	7.01	<4.0	6.68	28
12-Jul-18	7.15	<4.0	11	32
13-Oct-18	7.62	<4.0	36	48
17-Jan-19	7.14	<4	24	16

Graph 115: Showing for pH of Clear water Tank of Sedimentation Tank



Graph 116: Showing for TSS of Clear water Tank of Sedimentation Tank



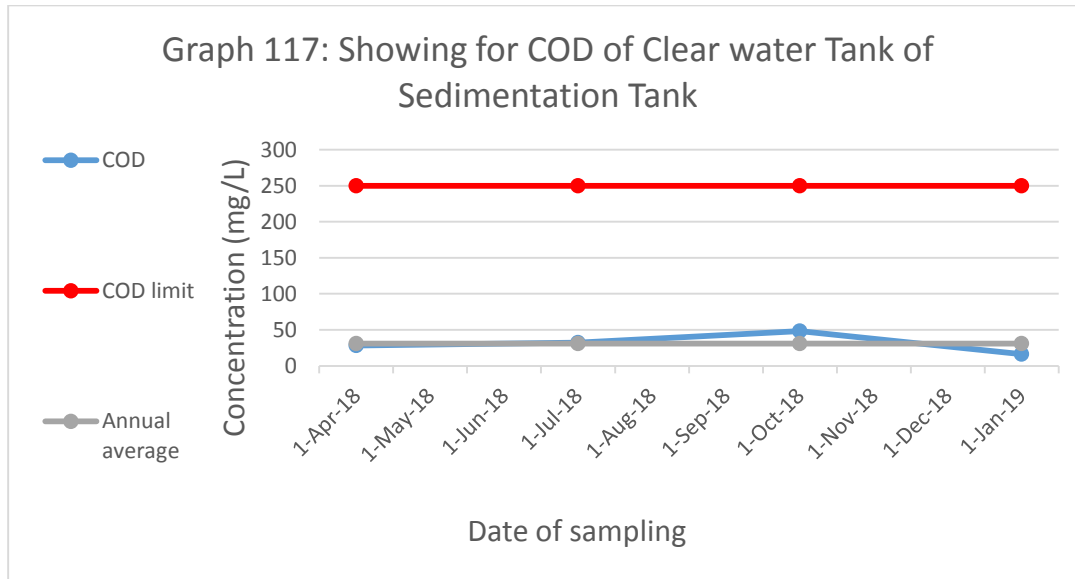
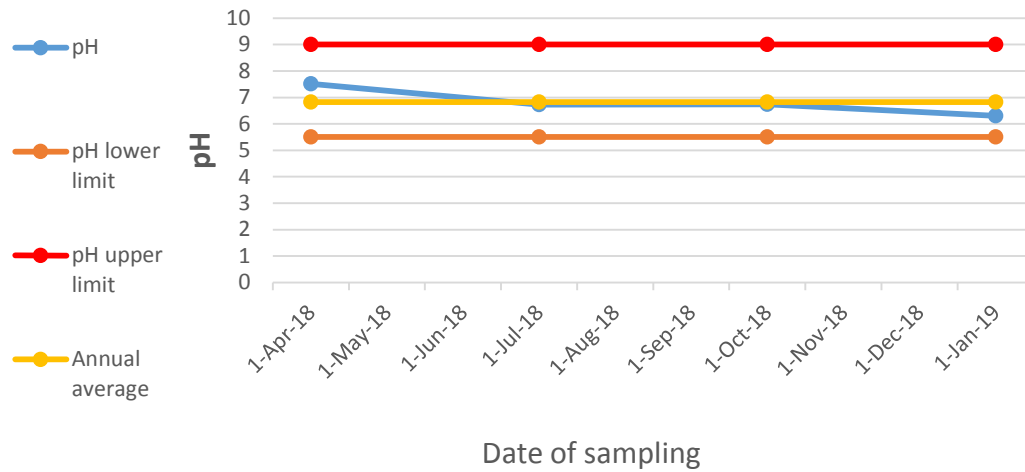


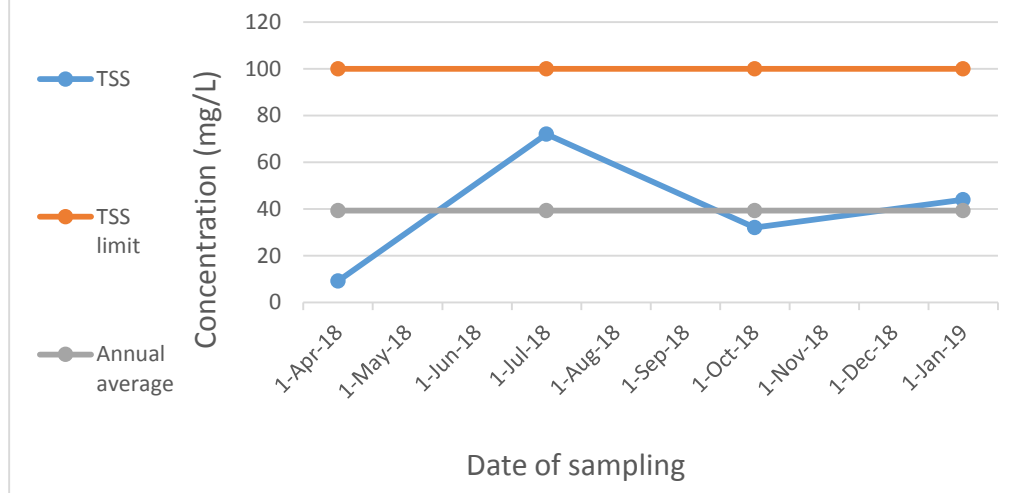
Table :105
Project: Belpahar OCP
Monitoring Station: Mine Sump water

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	7.52	<4.0	9.14	136
12-Jul-18	6.73	4	72	16
13-Oct-18	6.74	4	32	44
17-Jan-19	6.31	<4	44	32

Graph 118: Showing for pH of Mine Sump Water



Graph 119: Showing for TSS of Mine Sump Water



Graph 120: Showing for COD of Mine Sump Water

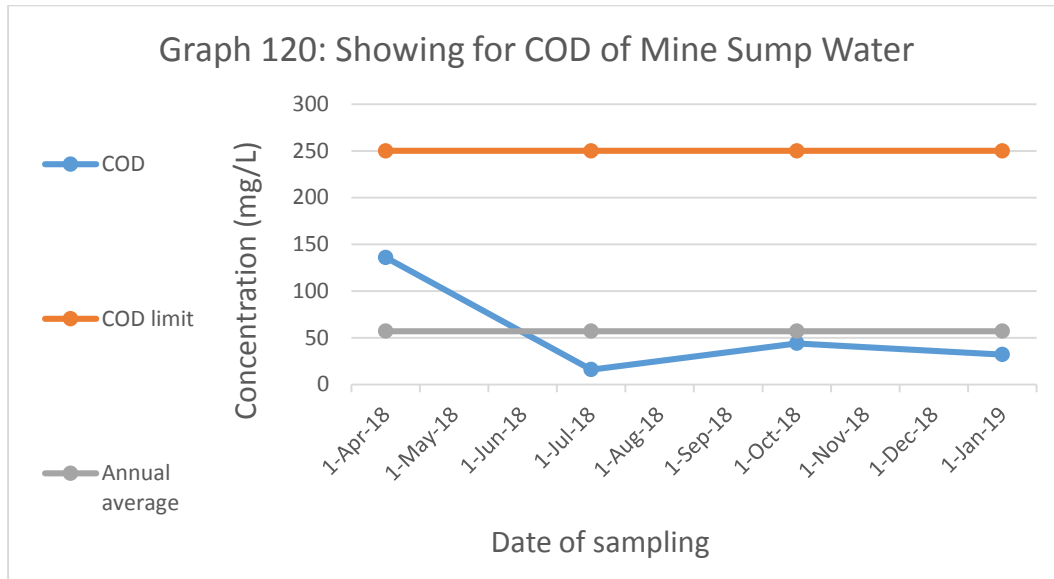
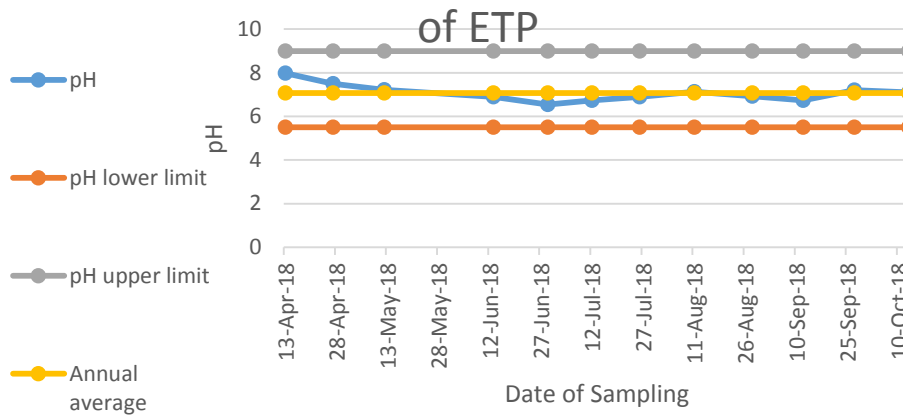


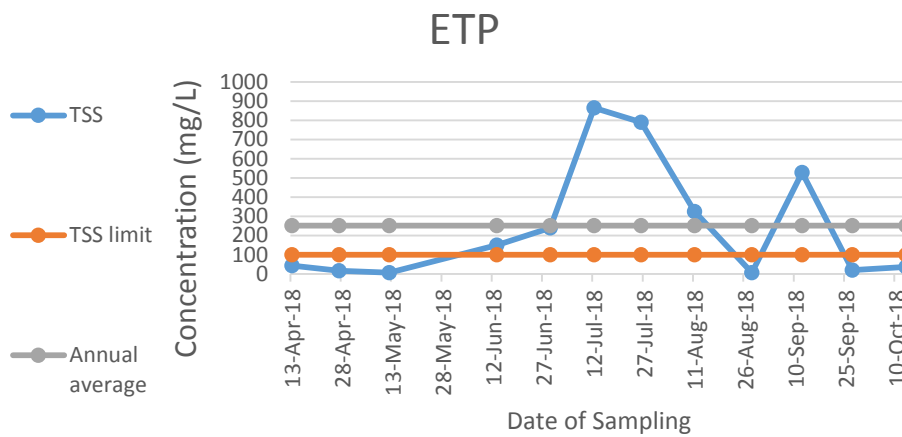
Table :105
Project: Belpahar OCP
Monitoring Station: Outlet of ETP

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
13-Apr-18	7.98	<4.0	42.62	72
27-Apr-18	7.5	<4.0	16	76
12-May-18	7.22	<4.0	6	36
24-May-18	DRY	DRY	DRY	DRY
13-Jun-18	6.89	8.2	150	24
29-Jun-18	6.54	7.5	239	144
12-Jul-18	6.74	4.4	865	800
26-Jul-18	6.89	4.8	790	292
11-Aug-18	7.13	6.8	325	80
28-Aug-18	6.92	<4.0	6	40
12-Sep-18	6.74	7.4	527	400
27-Sep-18	7.2	<4.0	20	20
13-Oct-18	7.1	<4.0	36	48
12-Nov-18	DRY	DRY	DRY	DRY
11-Dec-18	DRY	DRY	DRY	DRY
28-Dec-18	DRY	DRY	DRY	DRY
17-Jan-19	DRY	DRY	DRY	DRY
26-Feb-19	DRY	DRY	DRY	DRY
14-Mar-19	DRY	DRY	DRY	DRY
28-Mar-19	DRY	DRY	DRY	DRY

Graph 121: Showing for pH of Outlet



Graph 121: Showing for TSS of Outlet of



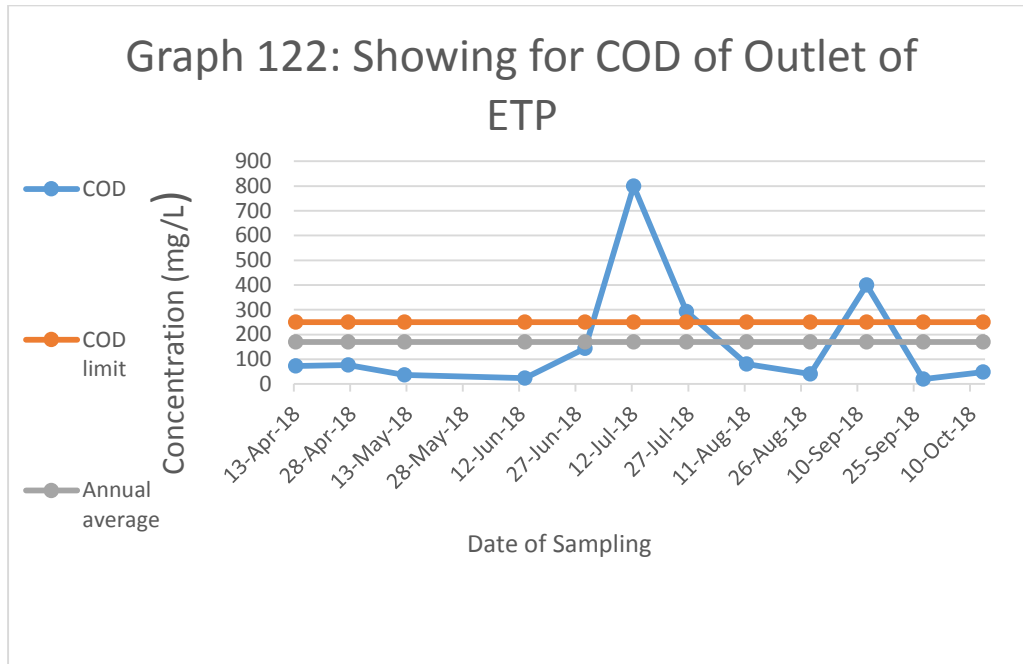
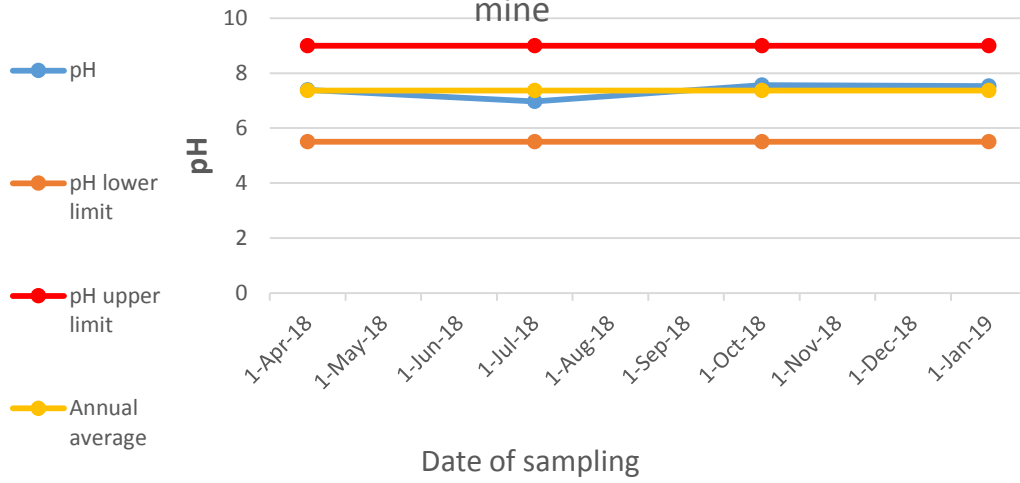


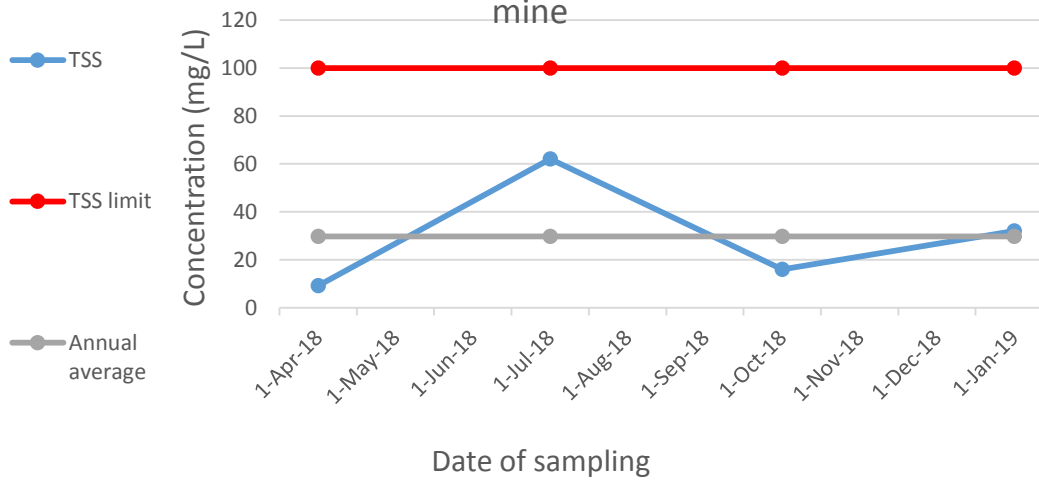
Table :106
Project: Kulda OCP
Monitoring Station: Final discharge point of mine

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
11-Jul-18	6.97	<4.0	62	48
6-Oct-18	7.56	<4.0	16	24
6-Apr-18	7.39	<4.0	9.18	64
15-Jan-19	7.53	<4	32	12

Graph 123: Showing for pH of Final discharge point of mine



Graph 124: Showing for TSS of Final discharge point of mine



Graph 125: Showing for COD of Final discharge point of mine

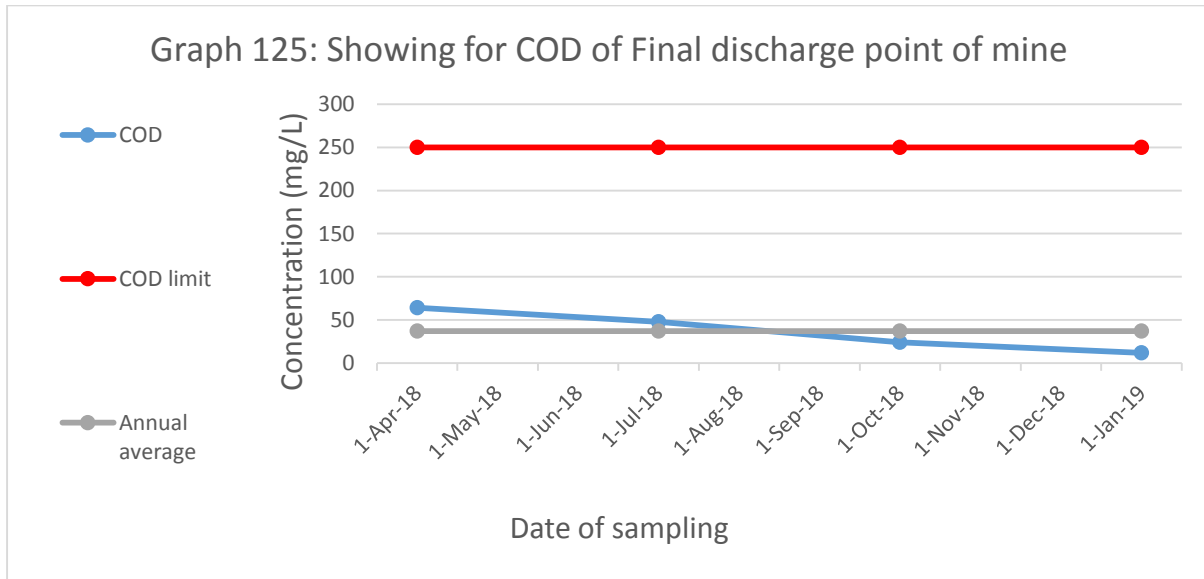
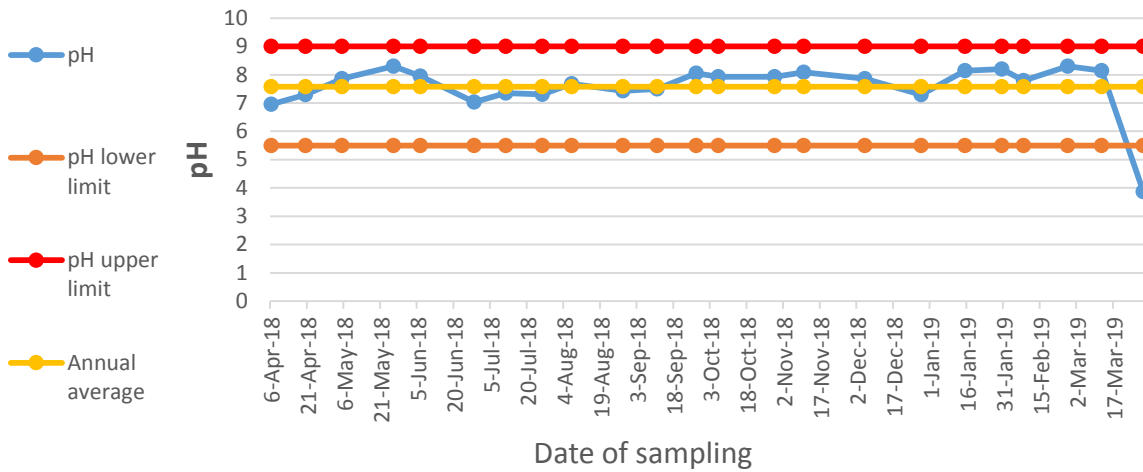


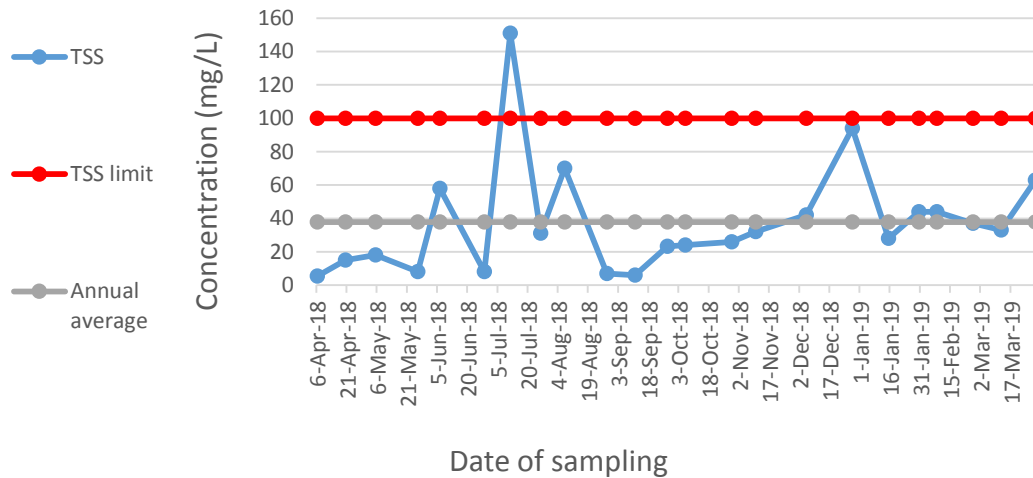
Table :107
Project: Kulda OCP
Monitoring Station: Outlet of Settling Pond

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
6-Apr-18	6.95	<4.0	5.4	44
20-Apr-18	7.29	<4.0	15	60
5-May-18	7.86	<4.0	18	48
26-May-18	8.3	<4.0	8	16
6-Jun-18	7.95	5	58	100
28-Jun-18	7.03	<4.0	8	8
11-Jul-18	7.35	<4.0	151	16
26-Jul-18	7.3	<4.0	31	56
7-Aug-18	7.68	<4.0	70	20
28-Aug-18	7.43	<4.0	7	56
11-Sep-18	7.5	<4.0	6	28
27-Sep-18	8.05	5.2	23.2	44
6-Oct-18	7.93	<4.0	24	32
29-Oct-18	7.93	<4.0	26	20
10-Nov-18	8.08	<4.0	32	24
5-Dec-18	7.86	<4.0	42	24
28-Dec-18	7.29	5.4	94	120
15-Jan-19	8.14	<4.0	28	12
30-Jan-19	8.2	<4.0	44	12
8-Feb-19	7.79	<4.0	44	68
26-Feb-19	8.3	<4.0	37	12
12-Mar-19	8.14	<4.0	33	12
29-Mar-19	3.87	<4.0	63	28

Graph 126: Showing for pH of Outlet of Settling Pond



Graph 127: Showing for TSS of Outlet of Settling Pond



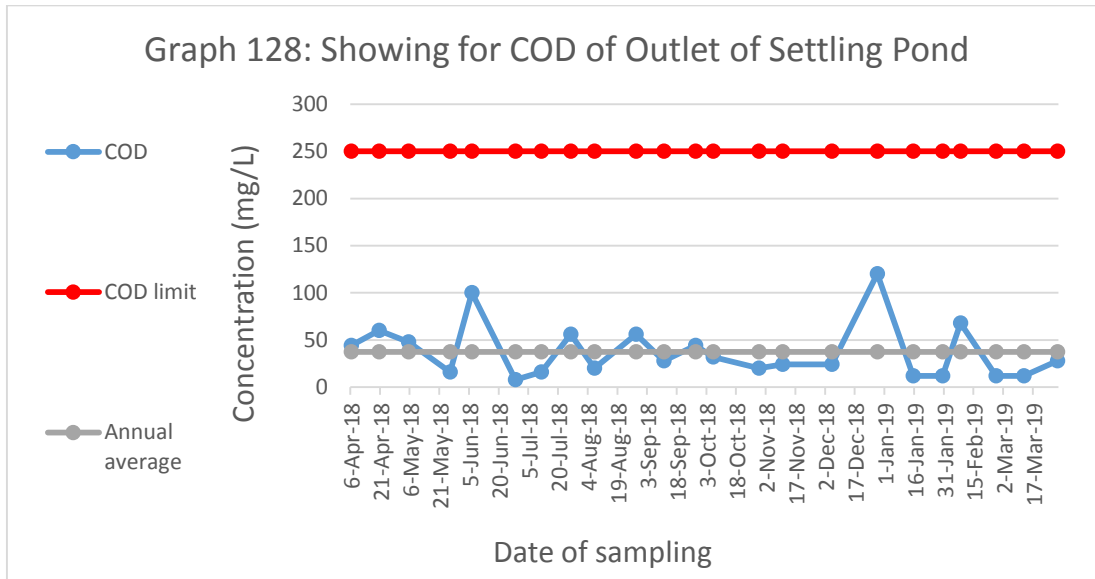
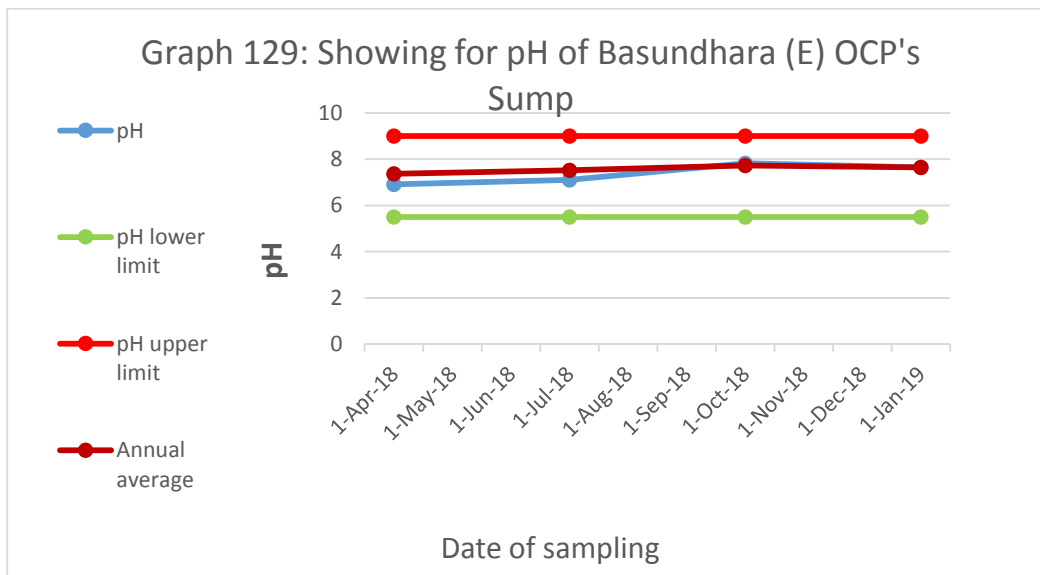


Table :108

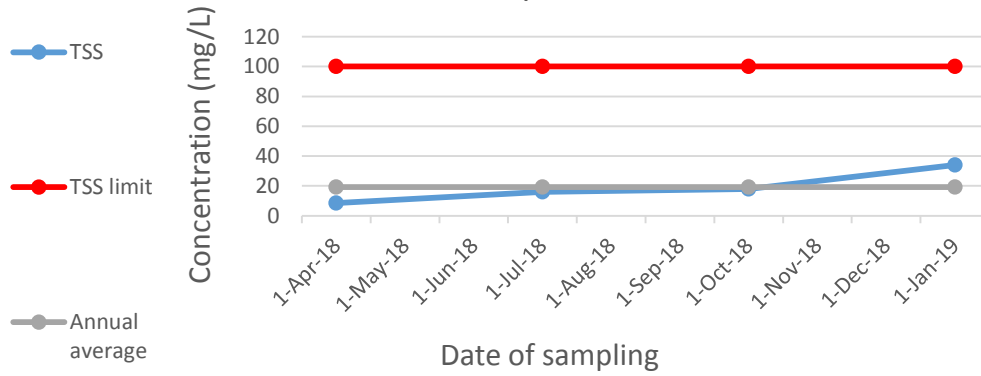
Project: Basundhara OCP

Monitoring Station: Basundhara (E) OCP's Sump

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
6-Apr-18	6.91	<4.0	8.6	68
11-Jul-18	7.1	<4.0	16	16
6-Oct-18	7.82	<4.0	18	24
15-Jan-19	7.64	<4	34	16



Graph 130: showing for TSS of Basundhara (E) OCP's Sump



Graph 131: showing for COD of Basundhara (E) OCP's Sump

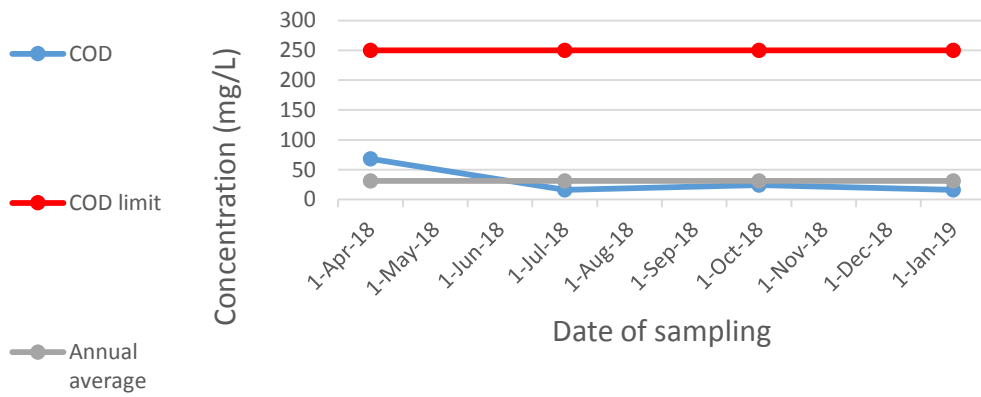
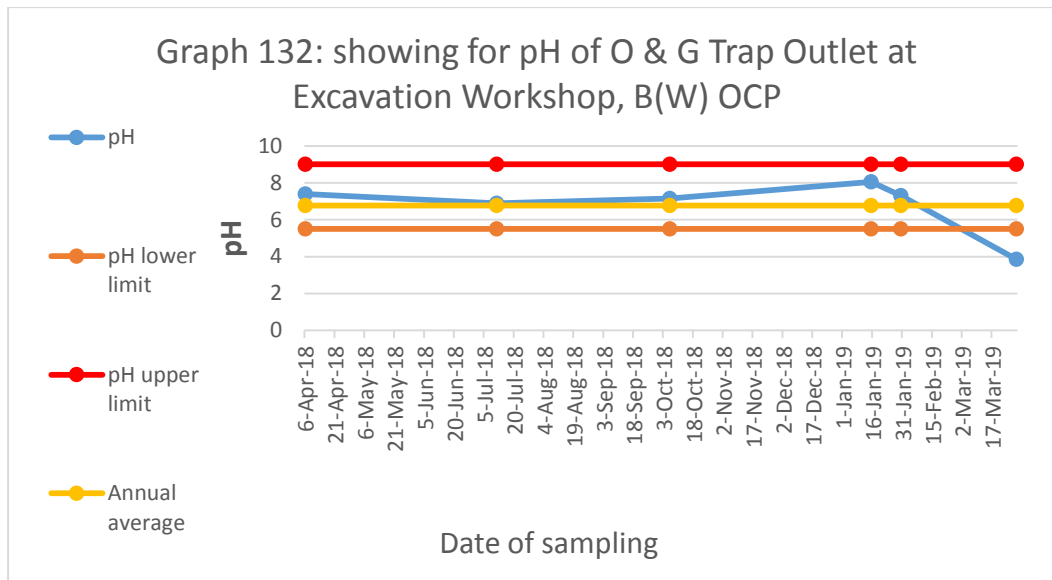
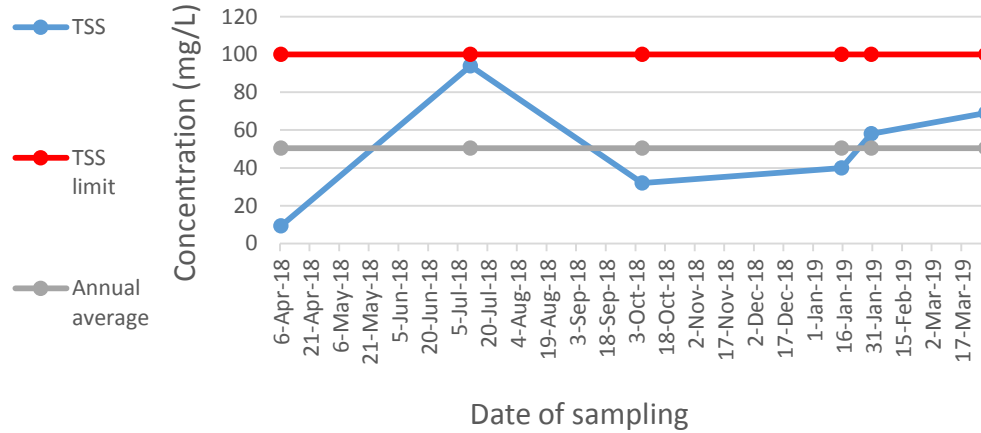


Table :109
Project: Basundhara OCP
Monitoring Station: O & G Trap Outlet at Excavation Workshop, B(W) OCP

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
6-Apr-18	7.4	<4.0	9.2	28
11-Jul-18	6.89	<4.0	94	8
6-Oct-18	7.15	<4.0	32	48
15-Jan-19	8.06	<4	40	24
30-Jan-19	7.3	<4	58	16
29-Mar-19	3.86	<4.0	69	36



Graph 133: showing for TSS of O & G Trap Outlet at Excavation Workshop, B(W) OCP



Graph 134: showing for COD of O & G Trap Outlet at Excavation Workshop, B(W) OCP

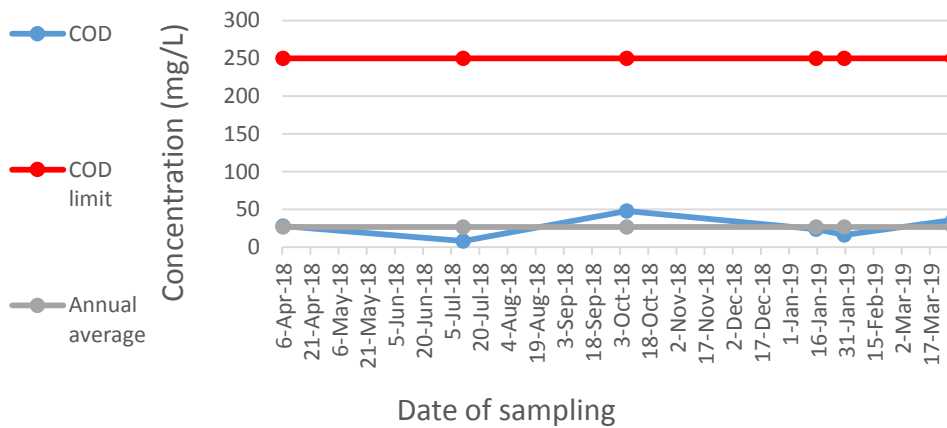
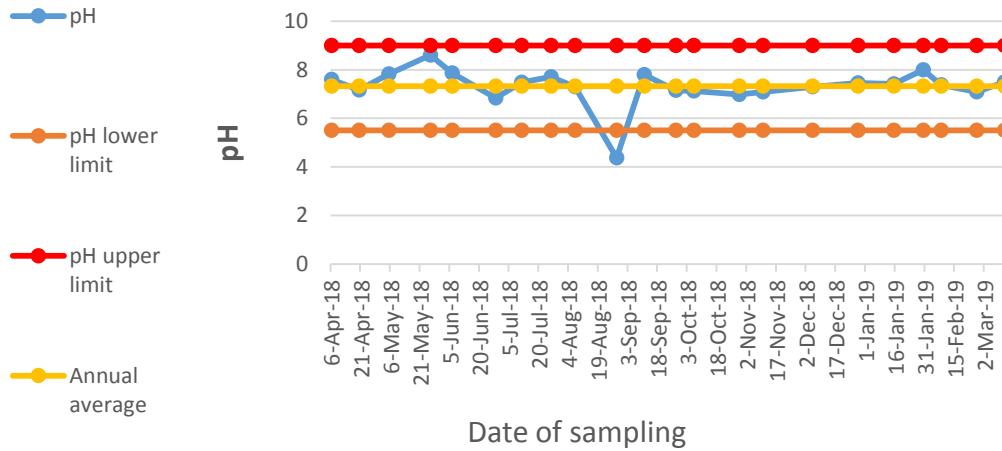


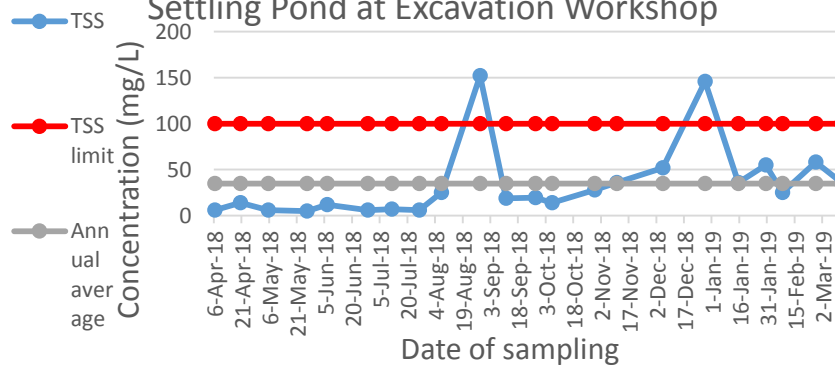
Table :110
Project: Basundhara OCP
Monitoring Station: Outlet of Settling Pond at Excavation Workshop

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
6-Apr-18	7.6	<4.0	5.98	128
20-Apr-18	7.16	<4.0	14	108
5-May-18	7.82	<4.0	6	60
26-May-18	8.6	<4.0	5	36
6-Jun-18	7.86	<4.0	12	76
28-Jun-18	6.83	<4.0	6	32
11-Jul-18	7.48	7.0	7	20
26-Jul-18	7.71	<4.0	6	24
7-Aug-18	7.29	<4.0	25	24
28-Aug-18	4.38	<4.0	152	104
11-Sep-18	7.8	<4.0	19	32
27-Sep-18	7.15	<4.0	19.6	28
6-Oct-18	7.12	<4.0	14	16
29-Oct-18	6.98	<4.0	28	16
10-Nov-18	7.09	<4.0	36	24
5-Dec-18	7.29	<4.0	52	28
28-Dec-18	7.46	6.2	146	168
15-Jan-19	7.42	<4	36	28
30-Jan-19	8	<4	55	36
8-Feb-19	7.37	<4	25	12
26-Feb-19	7.09	<4	58	36
12-Mar-19	7.49	<4.0	36	12

Graph 135: showing for pH of Outlet of Settling Pond at Excavation Workshop



Graph 136: Showing for TSS of Outlet of Settling Pond at Excavation Workshop



Graph 137: Showing for COD of Outlet of Settling Pond at Excavation Workshop

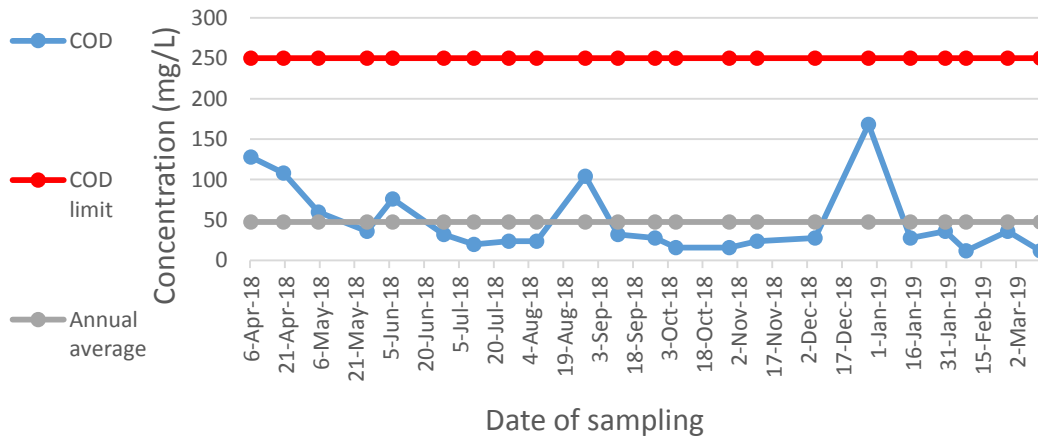
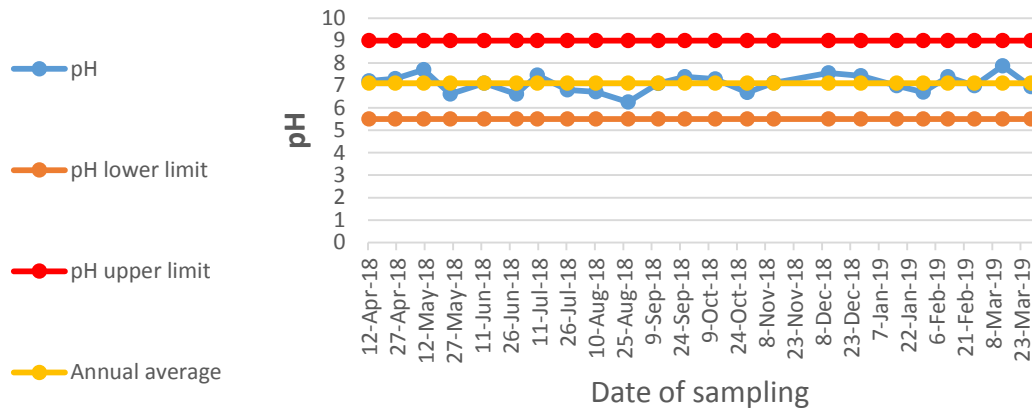


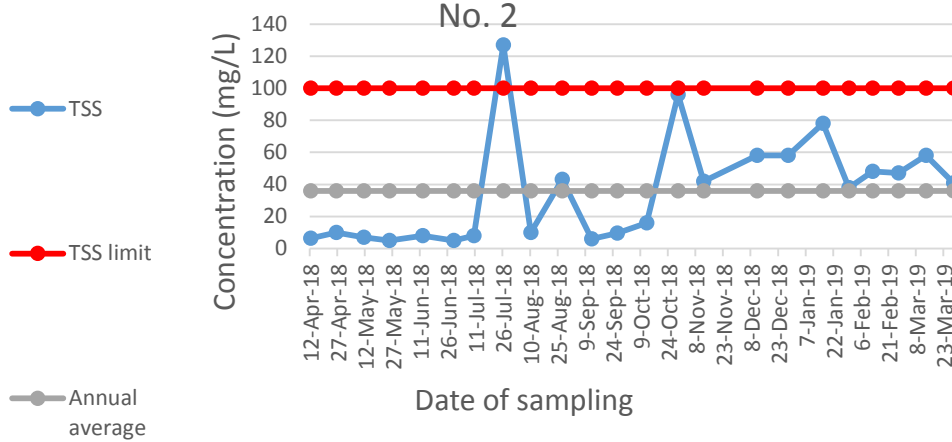
Table :112
Project: Orient Mine No. 1 &2
Monitoring Station: Orient Mine No. 2

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	7.2	<4.0	6.4	40
26-Apr-18	7.3	<4.0	10	28
11-May-18	7.7	<4.0	7	36
25-May-18	6.61	<4.0	5	28
12-Jun-18	7.1	<4.0	8	28
29-Jun-18	6.61	<4.0	5	44
10-Jul-18	7.45	<4.0	8	16
26-Jul-18	6.8	<4.0	127	20
10-Aug-18	6.71	<4.0	10	28
27-Aug-18	6.26	<4.0	43	64
12-Sep-18	7.08	<4.0	6	12
26-Sep-18	7.38	<4.0	9.6	28
12-Oct-18	7.28	<4.0	16	20
29-Oct-18	6.69	<4.0	96	60
12-Nov-18	7.11	<4.0	42	20
11-Dec-18	7.56	<4.0	58	32
28-Dec-18	7.43	<4.0	58	28
16-Jan-19	6.99	<4	78	16
30-Jan-19	6.7	<4	38	28
12-Feb-19	7.38	<4	48	20
26-Feb-19	6.99	<4	47	16
13-Mar-19	7.87	<4.0	58	20
28-Mar-19	6.95	<4.0	41	12

Graph 138: Showing for pH of Mine sump of Mine No. 2



Graph 139: Showing for TSS of Mine sump of Mine No. 2



Graph 140: Showing for COD of Mine sump of Mine No. 2

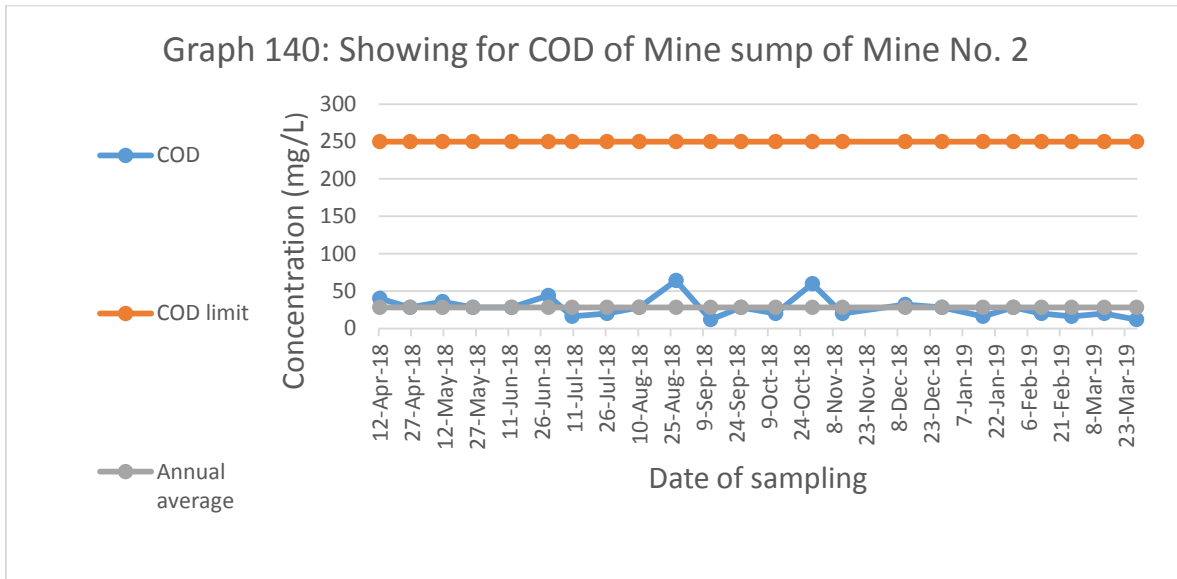
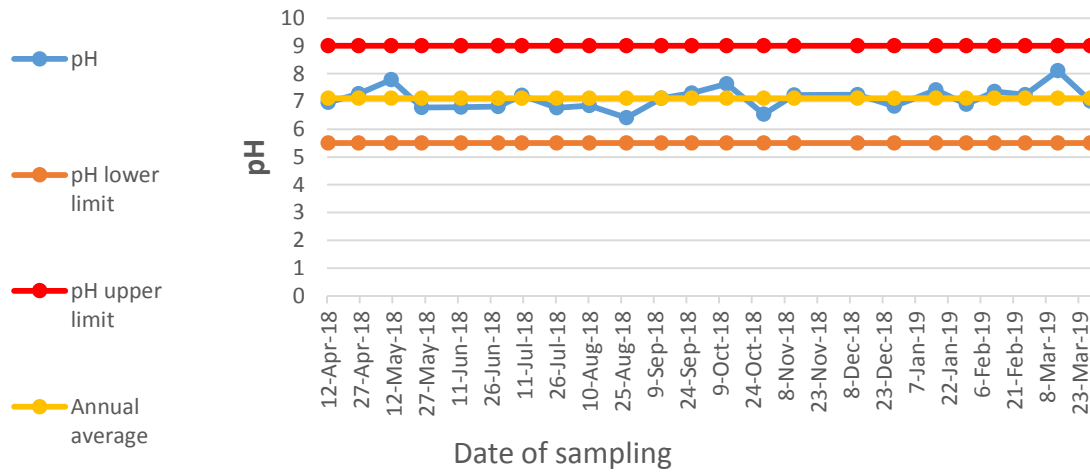


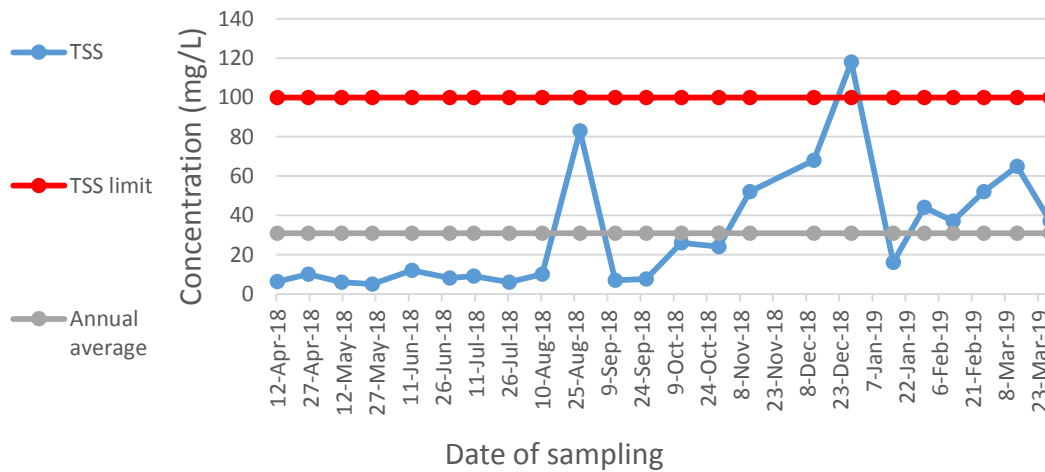
Table :112
Project: Orient Mine No. 3
Monitoring Station: Orient Mine No. 3

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	6.96	<4.0	6.28	20
26-Apr-18	7.28	<4.0	10	36
11-May-18	7.78	<4.0	6	64
25-May-18	6.78	<4.0	5	52
12-Jun-18	6.79	<4.0	12	20
29-Jun-18	6.82	<4.0	8	20
10-Jul-18	7.22	<4.0	9	32
26-Jul-18	6.77	<4.0	6	28
10-Aug-18	6.85	<4.0	10	20
27-Aug-18	6.41	<4.0	83	80
12-Sep-18	7.11	<4.0	7	32
26-Sep-18	7.3	<4.0	7.6	52
12-Oct-18	7.63	<4.0	26	36
29-Oct-18	6.54	<4.0	24	32
12-Nov-18	7.23	<4.0	52	36
11-Dec-18	7.24	<4.0	68	40
28-Dec-18	6.83	<4.0	118	44
16-Jan-19	7.42	<4.0	16	8
30-Jan-19	6.9	<4.0	44	24
12-Feb-19	7.36	<4.0	37	24
26-Feb-19	7.24	<4.0	52	16
13-Mar-19	8.11	<4.0	65	20
28-Mar-19	7.01	<4.0	37	12

Graph 141: Showing for pH of Mine sump of Mine No. 3



Graph 142: Showing for TSS of Mine sump of Mine No. 3



Graph 143: Showing for COD of Mine sump of Mine No. 3

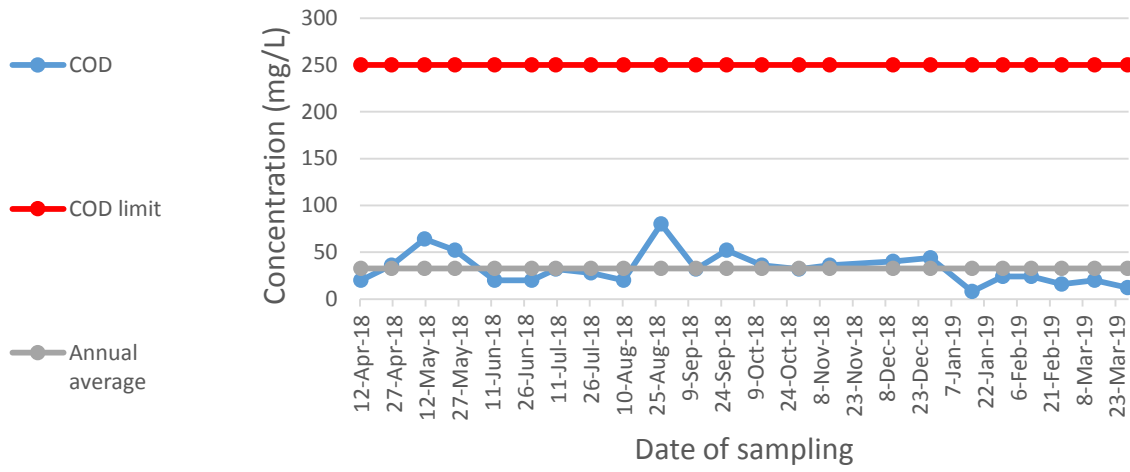
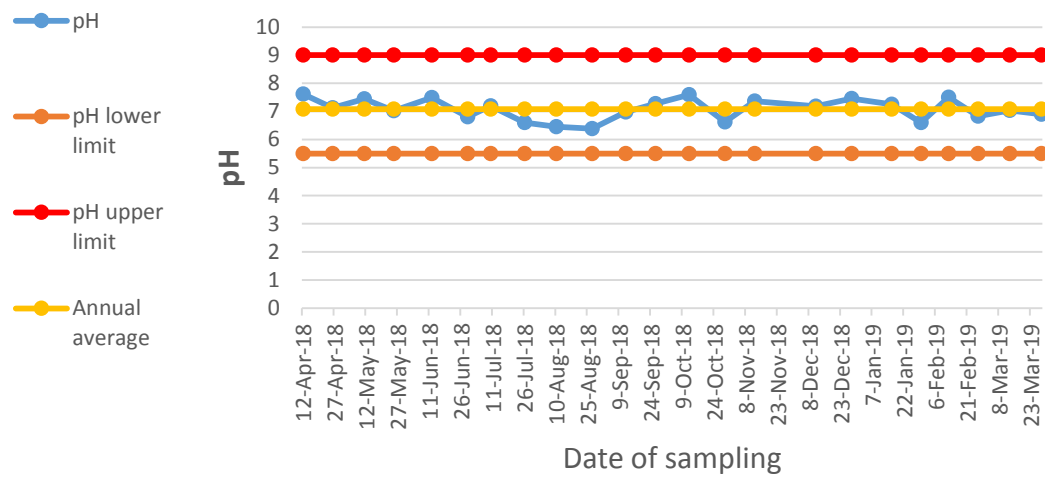


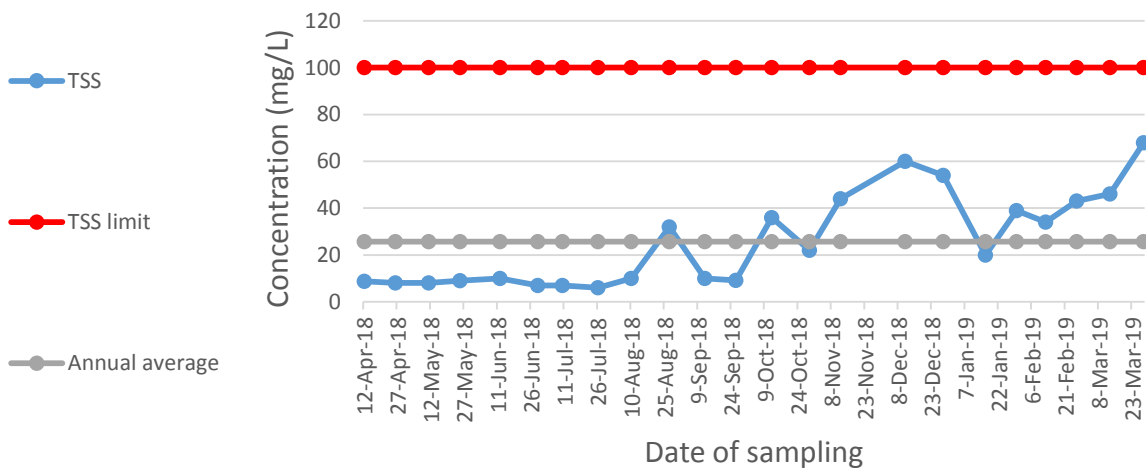
Table :113
Project: Orient Mine No. 4
Monitoring Station: Orient Mine No.4

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	7.61	<4.0	8.8	152
26-Apr-18	7.13	<4.0	8	36
11-May-18	7.45	<4.0	8	52
25-May-18	7.02	<4.0	9	12
12-Jun-18	7.49	<4.0	10	16
29-Jun-18	6.81	<4.0	7	44
10-Jul-18	7.19	5.4	7	72
26-Jul-18	6.6	<4.0	6	28
10-Aug-18	6.45	<4.0	10	96
27-Aug-18	6.38	<4.0	32	60
12-Sep-18	6.98	<4.0	10	16
26-Sep-18	7.27	<4.0	9.2	40
12-Oct-18	7.59	<4.0	36	28
29-Oct-18	6.62	<4.0	22	28
12-Nov-18	7.37	<4.0	44	32
11-Dec-18	7.18	<4.0	60	32
28-Dec-18	7.46	<4.0	54	24
16-Jan-19	7.25	<4	20	12
30-Jan-19	6.6	<4	39	24
12-Feb-19	7.5	<4	34	20
26-Feb-19	6.83	<4	43	24
13-Mar-19	7.04	<4.0	46	16
28-Mar-19	6.9	<4.0	68	20

Graph 145: Showing for pH of Mine sump of Mine No. 4



Graph 146: Showing for TSS of Mine sump of Mine No. 4



Graph 147: Showing for COD of Mine sump of Mine No. 4

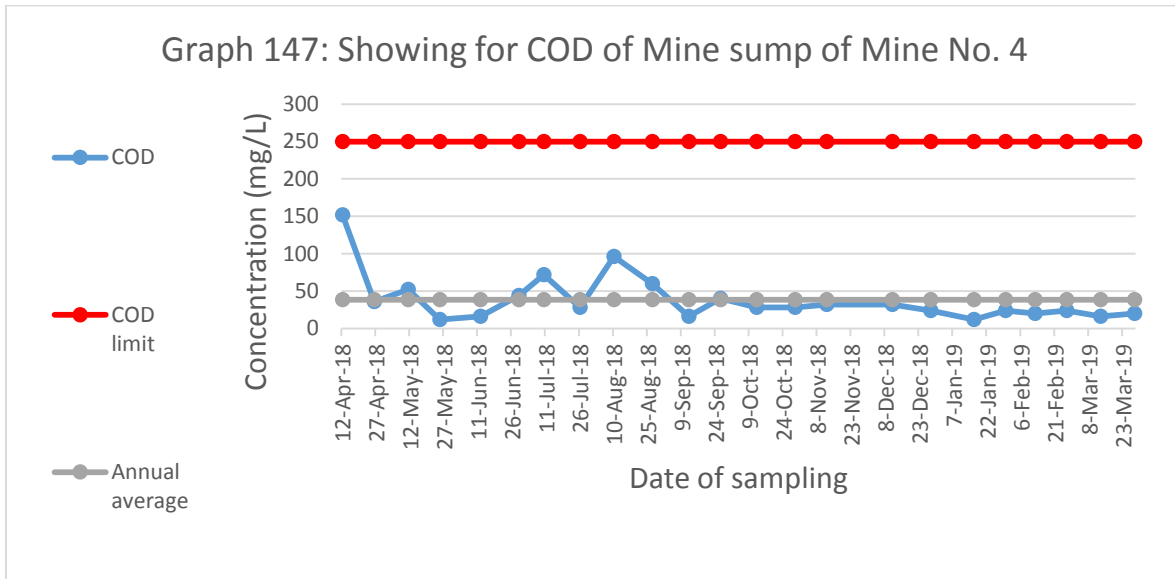
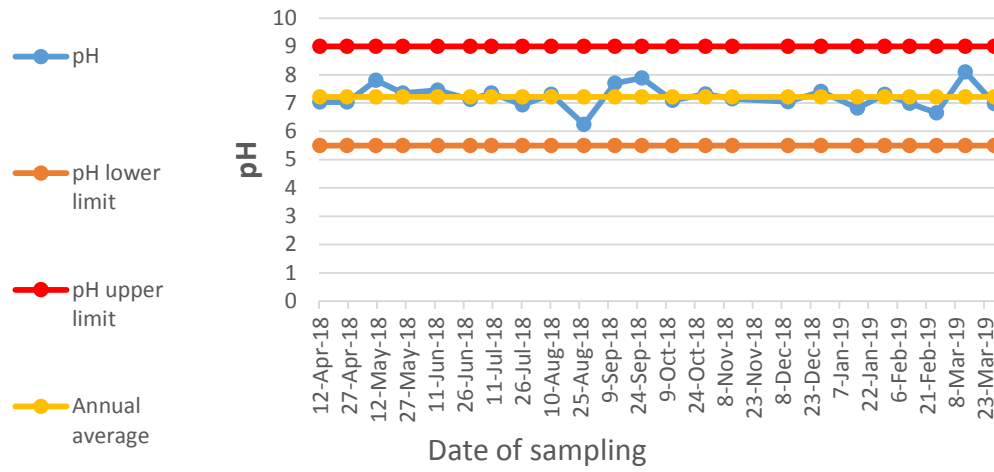


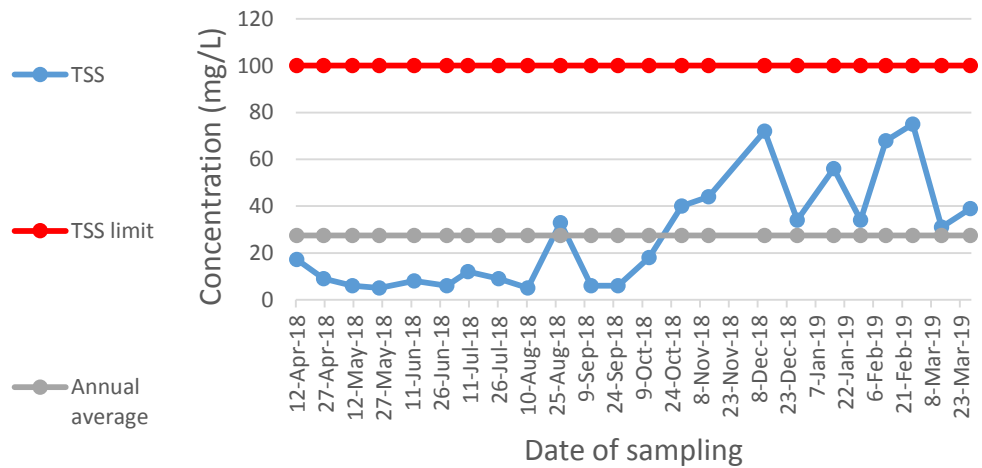
Table :114
Project: Hirakhand Bundia Mines
Monitoring Station: Hirakhand Bundia Mines

Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)
12-Apr-18	7.03	<4.0	17.16	32
26-Apr-18	7.03	<4.0	9	20
11-May-18	7.8	<4.0	6	40
25-May-18	7.35	<4.0	5	36
12-Jun-18	7.45	<4.0	8	36
29-Jun-18	7.12	<4.0	6	60
10-Jul-18	7.35	<4.0	12	52
26-Jul-18	6.93	<4.0	9	36
10-Aug-18	7.31	<4.0	5	12
27-Aug-18	6.24	<4.0	33	52
12-Sep-18	7.7	<4.0	6	36
26-Sep-18	7.88	<4.0	6	36
12-Oct-18	7.09	<4.0	18	24
29-Oct-18	7.32	<4.0	40	64
12-Nov-18	7.15	<4.0	44	20
11-Dec-18	7.05	4.6	72	48
28-Dec-18	7.41	<4.0	34	16
16-Jan-19	6.82	<4.0	56	28
30-Jan-19	7.3	<4.0	34	16
12-Feb-19	6.99	<4.0	68	20
26-Feb-19	6.65	<4.0	75	16
13-Mar-19	8.1	<4.0	31	12
28-Mar-19	6.98	<4.0	39	16

Graph 148: Showing for pH of Mine Sump of HBM



Graph 149: Showing for TSS of Mine Sump of HBM



Graph 150: Showing for COD of Mine Sump of HBM

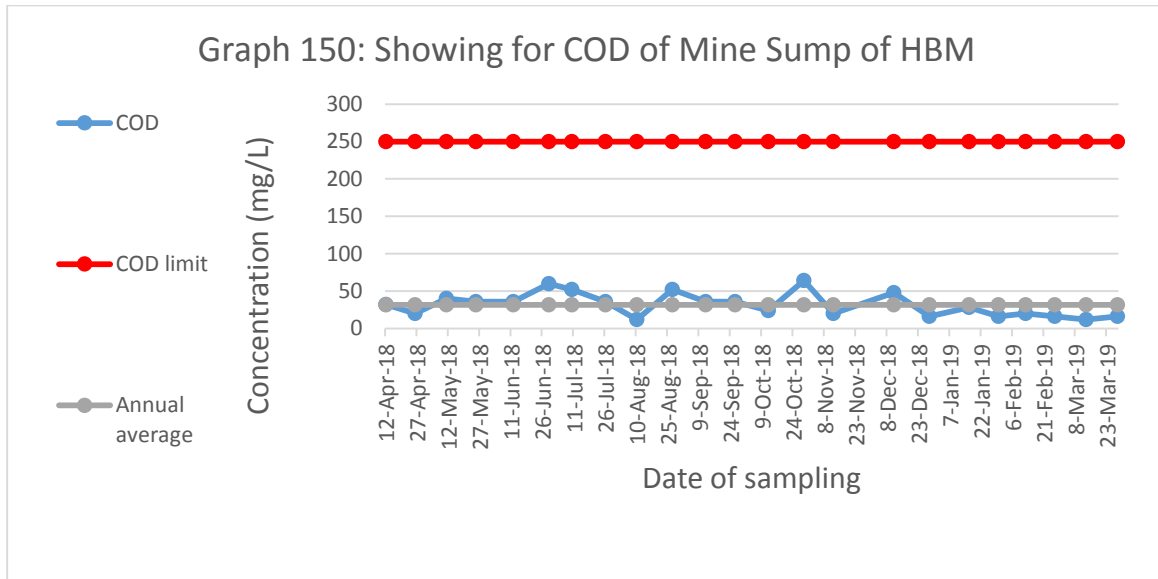
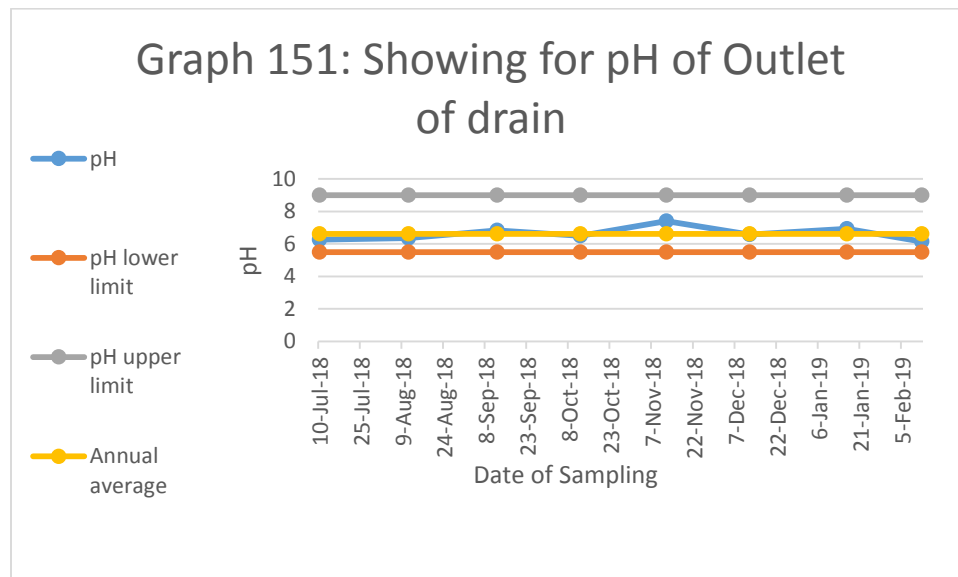
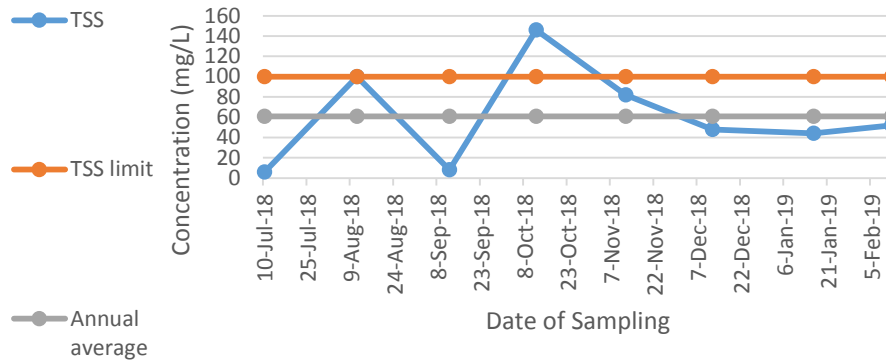


Table :115
Project: Central Hospital
Monitoring Station: Outlet of drain (6P)

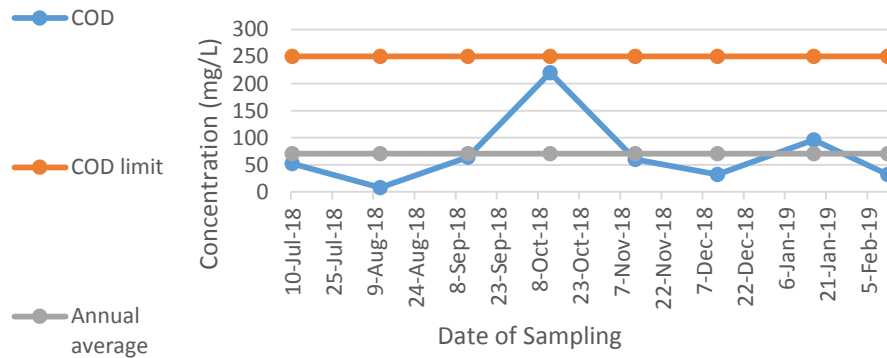
Date of Sampling	pH	Oil & Grease(mg/l)	TSS(mg/l)	COD(mg/l)	BOD(mg/l)
12-Apr-18	DRY	DRY	DRY	DRY	DRY
10-May-18	DRY	DRY	DRY	DRY	DRY
13-Jun-18	DRY	DRY	DRY	DRY	DRY
28-Jun-18	DRY	DRY	DRY	DRY	DRY
10-Jul-18	6.26	<4.0	6	52	1.6
11-Aug-18	6.37	5.2	100	8	0.5
12-Sep-18	6.83	<4.0	8	64	1.6
12-Oct-18	6.49	6.2	146	220	12
12-Nov-18	7.4	4.6	82	60	5.2
12-Dec-18	6.57		48	32	3.5
28-Dec-18	DRY	DRY	DRY	DRY	DRY
16-Jan-19	6.94	4.4	44	96	3.8
12-Feb-19	6.14	<4	52	32	3.2
14-Mar-19	Dry	Dry	Dry	Dry	Dry



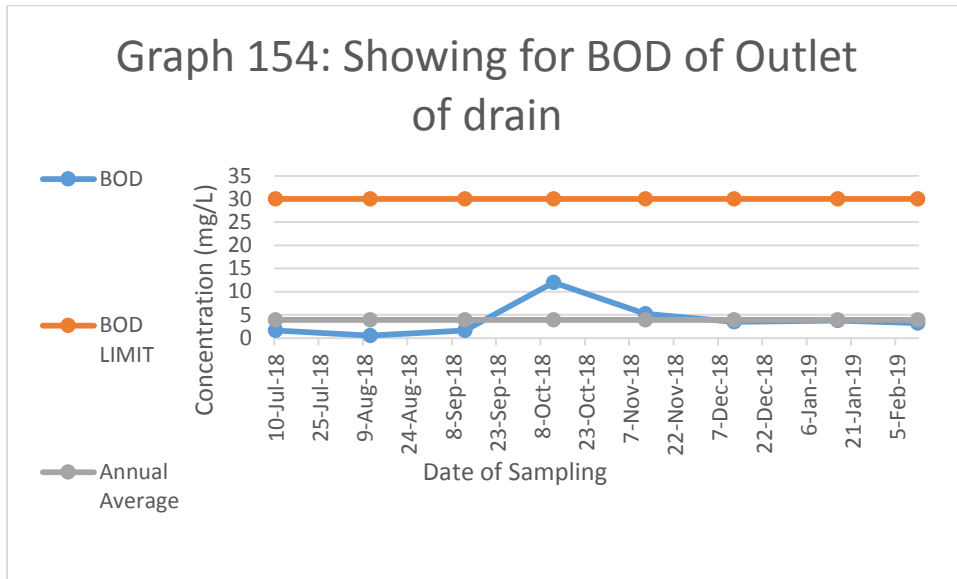
Graph 152: Showing for TSS of Outlet of drain



Graph 153: Showing for COD of Outlet of drain



Graph 154: Showing for BOD of Outlet of drain



TABLES FOR DRINKING WATER QUALITY DATA

Table :116
AREA: SAMLESWARI

Project / OCP	SAMLESWARI			Indian Drinking Standards (IS-10500):2012	
	Tap water from Samaleswari OCP colony				
Monitoring Station	12-Apr-18	10-May-18	13-Jun-18	Acceptable	Permissible
Date of Sampling	12-Apr-18	10-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	9	5.0	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	7	8		1	5
pH	7.63	7.85	7.73	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	16	12	200	600
Total Hardness (mg/l)	92	48	92	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	20	28	26	250	1000
Total Dissolve Solid (mg/l)	170	174	208	500	2000
Calcium (mg/l)	36.87	27.25	22.44	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)	4	9	9.58	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.29	0.52	0.33	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :117
AREA: SAMLESWARI

Project / OCP	SAMLESWARI			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Tap water from Samaleswari OCP colony			
Date of Sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	4	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	3	1	1	5
pH	7.55	7.41	6.92	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	24	28	200	600
Total Hardness (mg/l)	68	52	40	200	600
Iron (mg/l)	<0.06	<0.06	0.12	0.3	No relaxation
Chloride (mg/l)	20	26	16	250	1000
Total Dissolve Solid (mg/l)	203	130	152	500	2000
Calcium (mg/l)	19.24	17.64	12.83	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.05	0.04	0.02	0.1	0.3
Sulphate (mg/l)	22	20	20.02	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.26	0.53	0.32	1	1.5
Arsenic (mg/l)	0.003	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.18	0.23	0.18	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :118
AREA: SAMLESWARI

Project / OCP	SAMLESWARI			Indian Drinking Standards (IS-10500):2012	
	Tap water from Samaleswari OCP colony				
Monitoring Station				Acceptable	Permissible
Date of Sampling	12-Oct-18	12-Nov-18	11-Dec-18		
Colour (Hazen)	4	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	3	1	5
pH	7.32	7.27	7.52	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	60	224	200	600
Total Hardness (mg/l)	80	52	212	200	600
Iron (mg/l)	0.07	0.14	0.07	0.3	No relaxation
Chloride (mg/l)	22	12	28	250	1000
Total Dissolve Solid (mg/l)	182	134	482	500	2000
Calcium (mg/l)	20.8	11.2	43.2	75	200
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.04	0.1	0.3
Sulphate (mg/l)	9.93	5.7	4.3	200	400
Nitrate (mg/l)	1.08	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.29	0.32	0.44	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.26	0.35	0.34	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :119
AREA: SAMLESWARI

Project / OCP	SAMLESWARI			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Tap water from Samaleswari OCP colony			
Date of Sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	5	5	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.89	7.20	7.34	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	56	88	116	200	600
Total Hardness (mg/l)	104	72	88	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	20	26	250	1000
Total Dissolve Solid (mg/l)	226	204	236	500	2000
Calcium (mg/l)	27.2	17.6	20.8	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)	48.57	9.53	4.64	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.52	0.12	0.24	1	1.5
Selenium (mg/l)	-	-	<0.002	0.01	No relaxation
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.05	0.19	0.11	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :120
AREA: SAMLESWARI

Project / OCP	SAMLESWARI	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well water from Lajkura	Acceptable	Permissible
Date of Sampling	10-May-18		
Colour (Hazen)	2.0	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	9	1	5
pH	7.21	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	8	200	600
Total Hardness (mg/l)	660	200	600
Iron (mg/l)	<0.06	0.3	No relaxation
Chloride (mg/l)	34	250	1000
Total Dissolve Solid (mg/l)	1208	500	2000
Calcium (mg/l)	144.89	75	200
Copper (mg/l)	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.1	0.3
Sulphate (mg/l)	341	200	400
Nitrate (mg/l)		45	No relaxation
Fluoride (mg/l)	0.48	1	1.5
Arsenic (mg/l)	<0.002	0.01	0.05
Lead (mg/l)	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	5	15
Total Chromium (mg/l)	0.05	0.05	No relaxation
Boron (mg/l)	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	0.003	No relaxation

Table :121
AREA: SAMLESWARI

Project / OCP	SAMLESWARI		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Well water from Ainlapali		
Date of Sampling	10-May-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	7.0	1.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	9	1	1	5
pH	6.60	6.20	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	12	16	200	600
Total Hardness (mg/l)	124	36	200	600
Iron (mg/l)	<0.06	0.11	0.3	No relaxation
Chloride (mg/l)	60	26	250	1000
Total Dissolve Solid (mg/l)	272	244	500	2000
Calcium (mg/l)	41.68	12.83	75	200
Copper (mg/l)	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.09	0.1	0.3
Sulphate (mg/l)	27	12.98	200	400
Nitrate (mg/l)			45	No relaxation
Fluoride (mg/l)	0.43	0.28	1	1.5
Arsenic (mg/l)	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.0005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.23	5	15
Total Chromium (mg/l)	0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2		0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	0.003	No relaxation

Table :122
AREA: SAMLESWARI

Project / OCP	SAMLESWARI		Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well water from Chingriguda Village		Acceptable	Permissible
Date of Sampling	10-May-18	12-Sep-18		
Colour (Hazen)	3.0	3.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	8	1	1	5
pH	7.54	6.86	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	12	156	200	600
Total Hardness (mg/l)	208	148	200	600
Iron (mg/l)	<0.06	0.16	0.3	No relaxation
Chloride (mg/l)	52	60	250	1000
Total Dissolve Solid (mg/l)	468	446	500	2000
Calcium (mg/l)	43.29	19.23	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)	19	59.62	200	400
Nitrate (mg/l)	-	-	45	No relaxation
Fluoride (mg/l)	0.41	0.8	1	1.5
Arsenic (mg/l)	0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.05	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	1.8	5	15
Total Chromium (mg/l)	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	0.003	No relaxation

Table :123
AREA: SAMLESWARI

Project / OCP	SAMLESWARI			Indian Drinking Standards (IS-10500):2012	
	Water from IWSS, IB Valley Area				
Monitoring Station				Acceptable	Permissible
Date of Sampling	12-Sep-18	10-Nov-18	13-Mar-19		
Colour (Hazen)	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	3	2	1	5
pH	6.65	7.29	7.10	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	84	64	200	600
Total Hardness (mg/l)	28	76	56	200	600
Iron (mg/l)	0.12	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	22	22	12	250	1000
Total Dissolve Solid (mg/l)	236	198	140	500	2000
Calcium (mg/l)	9.62	19.2	14.4	75	200
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	0.02	<0.02	0.1	0.3
Sulphate (mg/l)	14.96	9.5	5.42	200	400
Nitrate (mg/l)		<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.27	0.29	0.11	1	1.5
Selenium (mg/l)	-	-	<0.002	0.01	No relaxation
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.15	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :124
AREA: SAMLESWARI

Project / OCP	Lajkura			Indian Drinking Standards (IS-10500):2012	
	Adarsh Nagar Tap Water				
Monitoring Station	12-Apr-18	10-May-18	12-Jun-18	Acceptable	Permissible
Date of Sampling	12-Apr-18	10-May-18	12-Jun-18	Acceptable	Permissible
Colour (Hazen)	10	6.0	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5	10		1	5
pH	7.85	7.88	7.45	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	24	8	8	200	600
Total Hardness (mg/l)	76	32	44	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	18	14	24	250	1000
Total Dissolve Solid (mg/l)	158	172	184	500	2000
Calcium (mg/l)	36.87	19.24	25.65	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)	3	7	13.55	200	400
Nitrate (mg/l)				45	No relaxation
Fluoride (mg/l)	0.24	0.43	0.34	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.03	<0.02	0.08	5	15
Total Chromium (mg/l)	<0.05	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :125
AREA: SAMLESWARI

Project / OCP	Lajkura			Indian Drinking Standards (IS-10500):2012	
	Adarsh Nagar Tap Water				
Monitoring Station					
Date of Sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	3	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	1	1	5
pH	6.79	6.88	7.37	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	20	40	200	600
Total Hardness (mg/l)	32	32	28	200	600
Iron (mg/l)	<0.06	0.109	0.18	0.3	No relaxation
Chloride (mg/l)	200	22	18	250	1000
Total Dissolve Solid (mg/l)	296	108	148	500	2000
Calcium (mg/l)	11.22	11.22	11.22	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.05	0.04	0.03	0.1	0.3
Sulphate (mg/l)	33	31	12.54	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.67	0.39	0.33	1	1.5
Arsenic (mg/l)	0.005	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.16	0.16	0.14	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :126
AREA: SAMLESWARI

Project / OCP	Lajkura			Indian Drinking Standards (IS-10500):2012	
	Adarsh Nagar Tap Water				
Monitoring Station				Acceptable	Permissible
Date of Sampling	12-Oct-18	12-Nov-18	11-Dec-18		
Colour (Hazen)	2	2	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	1	3	1	5
pH	7.32	7.78	7.14	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	76	64	200	600
Total Hardness (mg/l)	60	72	56	200	600
Iron (mg/l)	<0.06	0.17	0.08	0.3	No relaxation
Chloride (mg/l)	12	12	16	250	1000
Total Dissolve Solid (mg/l)	154	168	174	500	2000
Calcium (mg/l)	16	17.6	12.8	75	200
Copper (mg/l)	<0.03	<0.03	0.05	0.05	1.5
Manganese (mg/l)	<0.02	0.04	0.04	0.1	0.3
Sulphate (mg/l)	6.75	6.2	6.4	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.43	0.31	0.23	1	1.5
Selenium (mg/l)	-	-	-	0.01	No relaxation
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.14	0.04	0.92	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :127
AREA: SAMLESWARI

Project / OCP	Lajkura			Indian Drinking Standards (IS-10500):2012	
	Adarsh Nagar Tap Water				
Date of Sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	4	5	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	1	1	5
pH	7.68	7.43	7.28	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	72	68	64	200	600
Total Hardness (mg/l)	52	120	56	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	12	12	250	1000
Total Dissolve Solid (mg/l)	144	180	138	500	2000
Calcium (mg/l)	14.4	14.4	14.4	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)	7.4	10.23	5.11	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.16	0.15	<0.002	1	1.5
Selenium (mg/l)	-	-	<0.002	0.01	No relaxation
Arsenic (mg/l)	<0.002	<0.002	<0.005	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.02	0.01	No relaxation
Zinc (mg/L)	0.03	<0.02	<0.05	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.2	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.0005	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	0.15	0.003	No relaxation

Table :128
AREA: SAMLESWARI

Project / OCP Monitoring Station	Lajkura OCP Chhualibera Village Well Water	Indian Drinking Standards (IS-10500):2012	
		Acceptable	Permissible
Dt. of sampling	10-May-18		
Colour (Hazen)	3.0	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	8	1	5
pH	7.58	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	24	200	600
Total Hardness (mg/l)	164	200	600
Iron (mg/l)	<0.06	0.3	No relaxation
Chloride (mg/l)	124	250	1000
Total Dissolve Solid (mg/l)	376	500	2000
Calcium (mg/l)	33.67	75	200
Copper (mg/l)	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.1	0.3
Sulphate (mg/l)	24	200	400
Nitrate (mg/l)		45	No relaxation
Fluoride (mg/l)	0.40	1	1.5
Arsenic (mg/l)	0.003	0.01	0.05
Lead (mg/l)	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	5	15
Total Chromium (mg/l)	0.06	0.05	No relaxation
Boron (mg/l)	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	0.003	No relaxation

Table :129
AREA: SAMLESWARI

Project / OCP	Lajkura OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Madhuban Nagar Well Water	Acceptable	Permissible
Dt. of sampling	10-May-18		
Colour (Hazen)	DRY	5	15
Odour	DRY	Agreeable	Agreeable
Taste	DRY	Agreeable	Agreeable
Turbidity (NTU)	DRY	1	5
pH	DRY	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	DRY	200	600
Total Hardness (mg/l)	DRY	200	600
Iron (mg/l)	DRY	0.3	No relaxation
Chloride (mg/l)	DRY	250	1000
Total Dissolve Solid (mg/l)	DRY	500	2000
Calcium (mg/l)	DRY	75	200
Copper (mg/l)	DRY	0.05	1.5
Manganese (mg/l)	DRY	0.1	0.3
Sulphate (mg/l)	DRY	200	400
Nitrate (mg/l)	DRY	45	No relaxation
Fluoride (mg/l)	DRY	1	1.5
Arsenic (mg/l)	DRY	0.01	0.05
Lead (mg/l)	DRY	0.01	No relaxation
Zinc (mg/L)	DRY	5	15
Total Chromium (mg/l)	DRY	0.05	No relaxation
Boron (mg/l)	DRY	0.5	1.0
Cadmium (mg/l)	DRY	0.003	No relaxation

Table :130
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Khairkuni village tubewell water			
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	6	8	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	7	8		1	5
pH	6.63	6.30	6.65	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	12	16	200	600
Total Hardness (mg/l)	60	60	76	200	600
Iron (mg/l)	<0.06	0.18	<0.06	0.3	No relaxation
Chloride (mg/l)	20	22	24	250	1000
Total Dissolve Solid (mg/l)	150	148	140	500	2000
Calcium (mg/l)	44.9	35.3	49.7	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.26	0.1	0.07	0.1	0.3
Sulphate (mg/l)	4	17	7.43	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.41	0.48	0.58	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.1	1.87	0.7	5	15
Total Chromium (mg/l)	<0.05	0.07	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	0.005	0.005	<0.0005	0.003	No relaxation

Table :131
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Khairkuni village tubewell water			
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	4	3	1	5
pH	6.25	6.33	6.65	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	44	64	56	200	600
Total Hardness (mg/l)	108	40	48	200	600
Iron (mg/l)	<0.06	0.193	0.56	0.3	No relaxation
Chloride (mg/l)	44	18	16	250	1000
Total Dissolve Solid (mg/l)	237	128	176	500	2000
Calcium (mg/l)	20.8	9.6	14.4	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.17	0.1	0.12	0.1	0.3
Sulphate (mg/l)	14	13	18.04	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.33	0.63	0.28	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.14	3.46	2.25	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :132
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Khairkuni village tubewell water			
Date of Sampling	13-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	8	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5	5	1	1	5
pH	6.61	6.79	6.31	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	56	52	52	200	600
Total Hardness (mg/l)	56	52	48	200	600
Iron (mg/l)	0.44	<0.06	0.24	0.3	No relaxation
Chloride (mg/l)	12	8	10	250	1000
Total Dissolve Solid (mg/l)	148	132	146	500	2000
Calcium (mg/l)	11.2	14.4	12.8	75	200
Copper (mg/l)	<0.03	<0.03	0.05	0.05	1.5
Manganese (mg/l)	<0.02	0.15	0.13	0.1	0.3
Sulphate (mg/l)	8.06	10	3.2	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.31	0.35	0.29	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	1.6	1.21	0.66	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :133
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Khairkuni village tubewell water			
Date of Sampling	17-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	18	10	14	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	95	12	5	1	5
pH	6.70	7.50	6.55	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	80	60	200	600
Total Hardness (mg/l)	52	68	52	200	600
Iron (mg/l)	<0.06	0.69	<0.06	0.3	No relaxation
Chloride (mg/l)	8	8	10	250	1000
Total Dissolve Solid (mg/l)	128	240	126	500	2000
Calcium (mg/l)	14.4	19.2	12.8	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.1	0.07	0.1	0.3
Sulphate (mg/l)	3.38	2.43	1.55	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.39	0.10	0.10	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.14	<0.02	0.03	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :134
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	LKP canteen tap water			
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	10	6	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	4	9		1	5
pH	7.83	7.86	7.68	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	12	12	12	200	600
Total Hardness (mg/l)	60	68	72	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	18	20	250	1000
Total Dissolve Solid (mg/l)	142	164	178	500	2000
Calcium (mg/l)	49.7	22.4	28.9	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)	3	17	18.59	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.51	0.52	0.42	1	1.5
Arsenic (mg/l)	<0.002	0.003	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	<0.02	0.08	5	15
Total Chromium (mg/l)	0.09	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :135
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	LKP canteen tap water			
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	5	5	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	1	1	5
pH	7.83	7.44	6.95	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	72	36	36	200	600
Total Hardness (mg/l)	76	60	52	200	600
Iron (mg/l)	<0.06	0.15	0.09	0.3	No relaxation
Chloride (mg/l)	18	20	16	250	1000
Total Dissolve Solid (mg/l)	229	160	156	500	2000
Calcium (mg/l)	27.3	17.6	17.6	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.04	0.02	0.1	0.3
Sulphate (mg/l)	30	34	19.03	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.64	0.63	0.31	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.12	0.11	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :136
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	LKP canteen tap water			
Date of Sampling	13-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	3	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	2	1	5
pH	6.95	7.62	7.00	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	44	52	52	200	600
Total Hardness (mg/l)	68	56	60	200	600
Iron (mg/l)	<0.06	0.14	0.08	0.3	No relaxation
Chloride (mg/l)	10	14	12	250	1000
Total Dissolve Solid (mg/l)	142	142	154	500	2000
Calcium (mg/l)	19.2	16.0	17.6	75	200
Copper (mg/l)	<0.03	0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.04	0.1	0.3
Sulphate (mg/l)	10.68	11.9	10.4	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.29	0.43	0.28	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.15	0.14	0.15	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :137
AREA: Lakhanpur

Project / OCP	Lakhanpur			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	LKP canteen tap water			
Date of Sampling	17-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	6	4	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	1	1	5
pH	7.78	7.13	7.40	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	68	64	56	200	600
Total Hardness (mg/l)	80	64	64	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	14	10	10	250	1000
Total Dissolve Solid (mg/l)	178	200	142	500	2000
Calcium (mg/l)	24.0	17.6	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)	11.42	16.64	11.76	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.28	0.14	0.11	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	0.13	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :138
AREA: Lakhanpur

Project / OCP	Lilari OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jurabaga Village Well Water			
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	8	7	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	6	9		1	5
pH	7.23	7.50	6.15	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	8	12	20	200	600
Total Hardness (mg/l)	136	80	72	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	20	34	26	250	1000
Total Dissolve Solid (mg/l)	214	167	272	500	2000
Calcium (mg/l)	46.49	30.46	22.44	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	3	11	28.59	200	400
Nitrate (mg/l)				45	No relaxation
Fluoride (mg/l)	0.34	0.52	0.52	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	0.008	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :139
AREA: Lakhanpur

Project / OCP	Lilari OCP			Indian Drinking Standards (IS-10500):2012	
	Jurabaga Village Well Water				
Monitoring Station					
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	4	10	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	7	9	2	1	5
pH	6.01	6.20	6.32	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	24	20	200	600
Total Hardness (mg/l)	36	28	24	200	600
Iron (mg/l)	<0.06	0.285	0.12	0.3	No relaxation
Chloride (mg/l)	16	16	18	250	1000
Total Dissolve Solid (mg/l)	152	105	140	500	2000
Calcium (mg/l)	11.22	6.41	3.21	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.03	0.03	0.1	0.3
Sulphate (mg/l)	24	18	5.94	200	400
Nitrate (mg/l)				45	No relaxation
Fluoride (mg/l)	0.52	0.27	0.25	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.04	0.02	0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :140
AREA: Lakhanpur

Project / OCP	Lilari OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jurabaga Village Well Water			
Date of Sampling	13-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	1	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	2	1	5
pH	6.03	6.60	7.03	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	24	56	200	600
Total Hardness (mg/l)	40	40	72	200	600
Iron (mg/l)	<0.06	0.12	0.07	0.3	No relaxation
Chloride (mg/l)	14	20	18	250	1000
Total Dissolve Solid (mg/l)	96	102	182	500	2000
Calcium (mg/l)	9.6	8	12.8	75	200
Copper (mg/l)	<0.03	<0.03	0.05	0.05	1.5
Manganese (mg/l)	<0.02	0.03	0.06	0.1	0.3
Sulphate (mg/l)	9.56	15.5	11.7	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.24	0.41	0.22	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.08	0.09	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :141
AREA: Lakhanpur

Project / OCP	Lilari OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jurabaga Village Well Water			
Date of Sampling	17-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	5	6	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	1	1	5
pH	7.02	7.32	6.67	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	36	68	48	200	600
Total Hardness (mg/l)	48	68	68	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	26	14	28	250	1000
Total Dissolve Solid (mg/l)	136	220	170	500	2000
Calcium (mg/l)	11.2	19.2	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)	18.66	18.55	21.36	200	400
Nitrate (mg/l)	0.8	<0.5	3.13	45	No relaxation
Fluoride (mg/l)	0.15	0.11	0.09	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :142
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar Colony tap water				
Monitoring Station				Acceptable	Permissible
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18		
Colour (Hazen)	8	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	7	8		1	5
pH	7.73	8.10	7.60	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	8	12	200	600
Total Hardness (mg/l)	80	56	84	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	16	24	250	1000
Total Dissolve Solid (mg/l)	156	110	214	500	2000
Calcium (mg/l)	35.3	19.2	25.7	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	8	10	19.19	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.44	0.35	0.37	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	0.03	0.05	5	15
Total Chromium (mg/l)	0.1	0.06	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :143
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar Colony tap water				
Monitoring Station				Acceptable	Permissible
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18		
Colour (Hazen)	5	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	1	1	5
pH	7.33	7.29	6.97	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	32	36	200	600
Total Hardness (mg/l)	68	52	40	200	600
Iron (mg/l)	<0.06	0.10	0.06	0.3	No relaxation
Chloride (mg/l)	24	18	20	250	1000
Total Dissolve Solid (mg/l)	214	170	128	500	2000
Calcium (mg/l)	20.8	14.4	14.4	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.06	<0.02	0.1	0.3
Sulphate (mg/l)	29	37	15.95	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.51	0.54	0.33	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.17	0.05	0.09	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2			0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :144
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar Colony tap water				
Monitoring Station				Acceptable	Permissible
Date of Sampling	13-Oct-18	12-Nov-18	12-Dec-18		
Colour (Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	1	3	1	5
pH	7.65	7.38	7.51	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	40	48	60	200	600
Total Hardness (mg/l)	56	56	84	200	600
Iron (mg/l)	<0.06	0.15	0.07	0.3	No relaxation
Chloride (mg/l)	12	10	12	250	1000
Total Dissolve Solid (mg/l)	128	136	178	500	2000
Calcium (mg/l)	16.0	14.4	20.8	75	200
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	<0.02	0.04	0.1	0.3
Sulphate (mg/l)	13.21	10.4	11.2	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.33	0.28	0.27	1	1.5
Arsenic (mg/l)	<0.002	<0.002	0.004	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.07	0.15	0.07	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :145
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar Colony tap water				
Monitoring Station				Acceptable	Permissible
Date of Sampling	17-Jan-19	13-Feb-19	14-Mar-19		
Colour (Hazen)	4	5	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	1	1	5
pH	7.53	7.54	7.13	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	56	64	200	600
Total Hardness (mg/l)	60	68	64	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	12	12	250	1000
Total Dissolve Solid (mg/l)	150	200	150	500	2000
Calcium (mg/l)	17.6	19.2	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)	9.81	15.6	10.37	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.18	0.19	0.26	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.07	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :146
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Bepahar integrated township -indradhanush club outlet				
Monitoring Station	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	7	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	4	8		1	5
pH	8.20	7.90	7.55	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	12	8	200	600
Total Hardness (mg/l)	96	60	100	200	600
Iron (mg/l)	<0.06	<0.06	0.08	0.3	No relaxation
Chloride (mg/l)	14	18	26	250	1000
Total Dissolve Solid (mg/l)	178	126	210	500	2000
Calcium (mg/l)	44.9	25.7	7.6	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	7	10	19.17	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.53	0.41	0.35	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.03	5	15
Total Chromium (mg/l)	0.09	0.07	0.08	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :147
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar integrated township -indradhanush club outlet				
Monitoring Station				Acceptable	Permissible
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18		
Colour (Hazen)	3	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.82	7.12	7.36	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	28	28	200	600
Total Hardness (mg/l)	92	48	44	200	600
Iron (mg/l)	<0.06	0.11	<0.06	0.3	No relaxation
Chloride (mg/l)	22	22	22	250	1000
Total Dissolve Solid (mg/l)	234	149	174	500	2000
Calcium (mg/l)	22.4	14.4	16.0	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.06	0.02	0.1	0.3
Sulphate (mg/l)	29	39	16.94	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.64	0.52	0.28	1	1.5
Arsenic (mg/l)	0.006	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.09	0.06	0.09	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2			0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :148
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar integrated township -indradhanush club outlet				
Monitoring Station				Acceptable	Permissible
Date of Sampling	13-Oct-18	12-Nov-18	12-Dec-18		
Colour (Hazen)	2	1	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	4	1	5
pH	7.62	7.40	7.32	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	40	48	40	200	600
Total Hardness (mg/l)	60	56	60	200	600
Iron (mg/l)	<0.06	0.13	0.07	0.3	No relaxation
Chloride (mg/l)	10	12	20	250	1000
Total Dissolve Solid (mg/l)	132	130	156	500	2000
Calcium (mg/l)	17.6	14.4	17.6	75	200
Copper (mg/l)	<0.03	0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.04	0.1	0.3
Sulphate (mg/l)	11.9	11.8	8.3	200	400
Nitrate (mg/l)	<0.5	<0.5	11.03	45	No relaxation
Fluoride (mg/l)	0.43	0.26	0.25	1	1.5
Arsenic (mg/l)	0.003	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.52	0.1	0.12	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :149
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Belpahar integrated township -indradhanush club outlet				
Monitoring Station				Acceptable	Permissible
Date of Sampling	17-Jan-19	13-Feb-19	14-Mar-19		
Colour (Hazen)	7	5	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	1	1	5
pH	7.77	7.71	7.60	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	88	60	60	200	600
Total Hardness (mg/l)	84	60	64	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	10	14	250	1000
Total Dissolve Solid (mg/l)	202	180	152	500	2000
Calcium (mg/l)	25.6	17.6	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)	10.45	14.56	11.61	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.31	0.15		1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.1	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :150
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	CHP tap water			
Date of Sampling	13-Apr-18	12-May-18	13-Jun-18	Acceptable	Permissible
Colour (Hazen)	8	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5	9		1	5
pH	7.57	8.05	7.58	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	8	12	200	600
Total Hardness (mg/l)	88	52	80	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	16	24	250	1000
Total Dissolve Solid (mg/l)	160	108	160	500	2000
Calcium (mg/l)	33.7	17.6	27.3	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	6	7	17.18	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.60	0.39	0.42	1	1.5
Arsenic (mg/l)	<0.002	0.004	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	0.1	0.07	0.08	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :151
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	CHP tap water				
Monitoring Station					
Date of Sampling	12-Jul-18	11-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	5	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	1	1	1	5
pH	7.69	7.04	6.85	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	68	36	40	200	600
Total Hardness (mg/l)	80	64	32	200	600
Iron (mg/l)	<0.06	0.18	<0.06	0.3	No relaxation
Chloride (mg/l)	16	18	18	250	1000
Total Dissolve Solid (mg/l)	218	186	136	500	2000
Calcium (mg/l)	24.0	16.0	16.0	75	200
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.06	0.02	0.1	0.3
Sulphate (mg/l)	23	61	13.97	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.52	0.65	0.31	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.03	0.06	0.13	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :152
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	CHP tap water			
Date of Sampling	13-Oct-18	12-Nov-18	12-Dec-18	Acceptable	Permissible
Colour (Hazen)	2	4	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	3	2	1	5
pH	6.82	7.85	7.94	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	36	56	68	200	600
Total Hardness (mg/l)	56	60	68	200	600
Iron (mg/l)	<0.06	0.14	0.09	0.3	No relaxation
Chloride (mg/l)	12	14	14	250	1000
Total Dissolve Solid (mg/l)	130	146	172	500	2000
Calcium (mg/l)	16.0	17.6	20.8	75	200
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.04	0.1	0.3
Sulphate (mg/l)	14.34	11.1	8.7	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.46	0.30	0.23	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.22	0.05	0.03	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :153
AREA: Lakhanpur

Project / OCP	Belpahar OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	CHP tap water			
Date of Sampling	17-Jan-19	13-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	5	7	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	2	1	5
pH	7.88	7.42	7.25	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	56	60	200	600
Total Hardness (mg/l)	72	60	64	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	10	10	12	250	1000
Total Dissolve Solid (mg/l)	160	164	154	500	2000
Calcium (mg/l)	20.8	17.6	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)	9.49	14.21	11.76	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.29	0.17	0.20	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :154
AREA: Lakhanpur

Project / OCP	Belpahar OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Darlipali village well water	Acceptable	Permissible
Dt. of sampling	12-May-18	Acceptable	Permissible
Colour(Hazen)	3.0	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	9	1	5
pH	7.30	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	28	200	600
Total Hardness(mg/L)	400	200	600
Iron(mg/L)	<0.06	0.3	No relaxation
Chloride(mg/L)	122	250	1000
Total Dissolve Solid(mg/L)	1020	500	2000
Calcium(mg/L)	101.00	75	200
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	0.3
Sulphate(mg/L)	80	200	400
Nitrate(mg/L)	-	45	No relaxation
Fluoride(mg/L)	0.38	1	1.5
Arsenic(mg/L)	0.026	0.01	0.05
Lead(mg/L)	<0.005	0.01	No relaxation
Zinc(mg/L)	0.07	5	15
Total Chromium (mg/L)	0.08	0.05	No relaxation
Boron(mg/L)	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	0.003	No relaxation

Table :155
AREA: Lakhanpur

Project / OCP	Belpahar OCP		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station		Intake water of IWSS	
Dt. of sampling	12-Sep-18	14-Mar-19	Acceptable	Permissible
Colour(Hazen)	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	1	5
pH	6.94	7.34	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	36	56	200	600
Total Hardness(mg/L)	48	64	200	600
Iron(mg/L)	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	20	12	250	1000
Total Dissolve Solid(mg/L)	184	144	500	2000
Calcium(mg/L)	14.42	17.60	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)	21.34	10.68	200	400
Nitrate(mg/L)	-	<0.5	45	No relaxation
Fluoride(mg/L)	0.35	0.14	1	1.5
Arsenic(mg/L)	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Zinc(mg/L)	0.06	<0.02	5	15
Total Chromium (mg/L)	<0.05	<0.05	0.05	No relaxation
Boron(mg/L)	-	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation

Table :156
AREA: Basundhara

Project / OCP Monitoring Station	Basundhara OCP Basundhara Colony tap water			Indian Drinking Standards (IS-10500):2012	
	6-Apr-18	5-May-18	6-Jun-18	Acceptable	Permissible
Colour (Hazen)	8	5	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	4	8		1	5
pH	7.95	7.89	7.55	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	12	20	16	200	600
Total Hardness (mg/l)	176	148	132	200	600
Iron (mg/l)	<0.06	<0.06	0.07	0.3	No relaxation
Chloride (mg/l)	10	14	18	250	1000
Total Dissolve Solid (mg/l)	380	372	258	500	2000
Calcium (mg/l)	88.18	40.08	44.89	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.02	<0.002	<0.002	0.1	0.3
Sulphate (mg/l)	88	56	79.16	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.61	0.40	0.41	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.04	0.04	<0.02	5	15
Total Chromium (mg/l)	0.09	0.08	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :157
AREA: Basundhara

Project / OCP Monitoring Station	Basundhara OCP Basundhara Colony tap water			Indian Drinking Standards (IS-10500):2012	
	11-Jul-18	7-Aug-18	11-Sep-18	Acceptable	Permissible
Colour (Hazen)	5	6	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	1	1	5
pH	7.62	7.05	7.05	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	36	20	200	600
Total Hardness (mg/l)	124	88	72	200	600
Iron (mg/l)	<0.06	0.17	0.06	0.3	No relaxation
Chloride (mg/l)	10	18	18	250	1000
Total Dissolve Solid (mg/l)	292	257	194	500	2000
Calcium (mg/l)	28.86	17.64	20.84	75.00	200.00
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.002	0.08	0.02	0.1	0.3
Sulphate (mg/l)	57	79	68.86	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.65	0.75	0.20	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.14	0.1	0.14	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :158
AREA: Basundhara

Project / OCP Monitoring Station	Basundhara OCP Basundhara Colony tap water			Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling 6-Oct-18	10-Nov-18	5-Dec-18	Acceptable	Permissible
Colour (Hazen)	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	2	1	5
pH	6.98	8.05	7.78	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	28	48	44	200	600
Total Hardness (mg/l)	104	108	112	200	600
Iron (mg/l)	<0.06	0.18	0.06	0.3	No relaxation
Chloride (mg/l)	12	12	10	250	1000
Total Dissolve Solid (mg/l)	216	254	258	500	2000
Calcium (mg/l)	24.00	25.60	24.00	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	<0.02	0.04	0.1	0.3
Sulphate (mg/l)	62.15	69.2	71.4	200	400
Nitrate (mg/l)	3.18	2.80	1.81	45	No relaxation
Fluoride (mg/l)	0.41	0.41	0.48	1	1.5
Arsenic (mg/l)	0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.1	0.05	0.06	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :159
AREA: Basundhara

Project / OCP Monitoring Station	Basundhara OCP Basundhara Colony tap water			Indian Drinking Standards (IS-10500):2012	
	15-Jan-19	8-Feb-19	12-Mar-19	Acceptable	Permissible
Colour (Hazen)	5	3	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	1	1	1	5
pH	7.51	7.01	7.31	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	92	36	44	200	600
Total Hardness (mg/l)	80	104	116	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	26	20	12	250	1000
Total Dissolve Solid (mg/l)	208	280	260	500	2000
Calcium (mg/l)	19.20	20.80	25.60	75.00	200.00
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)	4.34	61.88	77.69	200	400
Nitrate (mg/l)	<0.5	6.71	<0.5	45	No relaxation
Fluoride (mg/l)	0.21	0.17	-	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.12	0.04	0.27	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :160
AREA:Kulda

Project / OCP	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Well at Tumulia				
Monitoring Station	6-Apr-18	5-May-18	6-Jun-18	Acceptable	Permissible
Dt. of sampling	6-Apr-18	5-May-18	6-Jun-18	Acceptable	Permissible
Colour (Hazen)	8	7	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	9		1	5
pH	7.80	7.77	8.01	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	40	24	20	200	600
Total Hardness (mg/l)	264	200	248	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	58	32	62	250	1000
Total Dissolve Solid (mg/l)	460	322	386	500	2000
Calcium (mg/l)	65.73	51.3	41.68	75.00	200.00
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)	30	14	19.5	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.67	0.68	0.52	1	1.5
Arsenic (mg/l)	<0.002	0.004	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	0.09	0.07	0.09	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :161
AREA: Kulda

Project / OCP	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Well at Tumulia				
Monitoring Station	11-Jul-18	7-Aug-18	11-Sep-18	Acceptable	Permissible
Dt. of sampling	11-Jul-18	7-Aug-18	11-Sep-18	Acceptable	Permissible
Colour (Hazen)	3	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.40	7.75	7.43	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	208	208	192	200	600
Total Hardness (mg/l)	236	224	228	200	600
Iron (mg/l)	<0.06	0.19	0.09	0.3	No relaxation
Chloride (mg/l)	62	54	42	250	1000
Total Dissolve Solid (mg/l)	578	560	536	500	2000
Calcium (mg/l)	43.28	46.49	51.3	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.04	0.07	<0.02	0.1	0.3
Sulphate (mg/l)	21	25	28.82	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.67	0.80	0.78	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.03	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :162
AREA: Kulda

Project / OCP	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Well at Tumulia			
Dt. of sampling	6-Oct-18	10-Nov-18	5-Dec-18	Acceptable	Permissible
Colour (Hazen)	1	3	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	4	1	5
pH	7.31	7.89	7.79	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	276	248	224	200	600
Total Hardness (mg/l)	208	256	304	200	600
Iron (mg/l)	<0.06	0.18	0.06	0.3	No relaxation
Chloride (mg/l)	50	52	128	250	1000
Total Dissolve Solid (mg/l)	578	594	756	500	2000
Calcium (mg/l)	38.4	52.8	78.4	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.04	0.1	0.3
Sulphate (mg/l)	17.34	21	70.7	200	400
Nitrate (mg/l)	8.58	4.81	7.52	45	No relaxation
Fluoride (mg/l)	0.38	0.58	0.41	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	0.04	0.03	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.02	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :163
AREA: Kulda

Project / OCP	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Well at Tumulia				
Monitoring Station	15-Jan-19	8-Feb-19	12-Mar-19	Acceptable	Permissible
Dt. of sampling	15-Jan-19	8-Feb-19	12-Mar-19	Acceptable	Permissible
Colour (Hazen)	19	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	8.24	7.09	7.79	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	192	188	264	200	600
Total Hardness (mg/l)	248	208	264	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	112	80	52	250	1000
Total Dissolve Solid (mg/l)	630	412	608	500	2000
Calcium (mg/l)	62.4	33.6	51.2	75.00	200.00
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)	50.66	1.21	21.82	200	400
Nitrate (mg/l)	24.15	2.2	5.14	45	No relaxation
Fluoride (mg/l)	0.49	0.64	1.27	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.69	0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :164
AREA: Kulda

Project / OCP Monitoring Station	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Filter plant				
Dt. of sampling	6-Apr-18	5-May-18	6-Jun-18	Acceptable	Permissible
Colour (Hazen)	10	6	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	6	9	-	1	5
pH	7.51	8.25	7.33	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	32	24	16	200	600
Total Hardness (mg/l)	300	284	204	200	600
Iron (mg/l)	<0.06	<0.06	0.14	0.3	No relaxation
Chloride (mg/l)	36	32	40	250	1000
Total Dissolve Solid (mg/l)	426	636	494	500	2000
Calcium (mg/l)	33.67	86.57	51.30	75.00	200.00
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)	23	54	17.51	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.78	0.33	0.38	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	<0.02	0.04	5	15
Total Chromium (mg/l)	0.08	0.07	0.08	0.05	No relaxation
Boron (mg/l)	<0.2	<0.02	<0.02	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :165
AREA: Kulda

Project / OCP Monitoring Station	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Filter plant				
Dt. of sampling	11-Jul-18	7-Aug-18	11-Sep-18	Acceptable	Permissible
Colour (Hazen)	4	4	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	10	1	1	5
pH	7.39	7.43	7.50	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	104	84	76	200	600
Total Hardness (mg/l)	208	184	184	200	600
Iron (mg/l)	<0.06	0.17	<0.06	0.3	No relaxation
Chloride (mg/l)	18	22	22	250	1000
Total Dissolve Solid (mg/l)	443	434	466	500	2000
Calcium (mg/l)	43.28	33.67	36.87	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	0.06	<0.02	0.1	0.3
Sulphate (mg/l)	59	111	126.28	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.64	0.81	0.75	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	0.08	0.19	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.02	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :166
AREA: Kulda

Project / OCP Monitoring Station	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Filter plant				
Dt. of sampling	6-Oct-18	10-Nov-18	5-Dec-18	Acceptable	Permissible
Colour (Hazen)	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	4	4	1	5
pH	7.95	7.92	7.68	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	96	112	132	200	600
Total Hardness (mg/l)	272	232	256	200	600
Iron (mg/l)	<0.06	<0.06	0.06	0.3	No relaxation
Chloride (mg/l)	10	22	22	250	1000
Total Dissolve Solid (mg/l)	482	488	562	500	2000
Calcium (mg/l)	51.20	44.80	46.40	75.00	200.00
Copper (mg/l)	<0.03	0.04	0.04	0.05	1.5
Manganese (mg/l)	<0.02	<0.02	0.03	0.1	0.3
Sulphate (mg/l)	79.12	104.2	129.6	200	400
Nitrate (mg/l)	12.92	9.69	6.82	45	No relaxation
Fluoride (mg/l)	0.43	0.55	0.71	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.85	0.31	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :167
AREA: Kulda

Project / OCP Monitoring Station	Kulda OCP			Indian Drinking Standards (IS-10500):2012	
	Filter plant			Acceptable	Permissible
Dt. of sampling	15-Jan-19	8-Feb-19	12-Mar-19		
Colour (Hazen)	4	9	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	13	2	1	5
pH	7.58	8.04	7.76	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	32	164	204	200	600
Total Hardness (mg/l)	116	244	264	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	10	24	26	250	1000
Total Dissolve Solid (mg/l)	234	400	564	500	2000
Calcium (mg/l)	24.00	44.80	51.20	75.00	200.00
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)	71.25	92.73	65.62	200	400
Nitrate (mg/l)	<0.5	10.87	11.37	45	No relaxation
Fluoride (mg/l)	0.42	0.86	1.35	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.03	<0.02	0.05	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.02	<0.02	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :168
AREA: Orient

Project / OCP Monitoring Station	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Budhijaam colony			Acceptable	Permissible
Dt. of sampling	12-Apr-18	11-May-18	12-Jun-18		
Colour (Hazen)	4	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5	9		1	5
pH	7.98	8.10	7.38	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	36	8	12	200	600
Total Hardness (mg/l)	60	76	88	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	54	30	250	1000
Total Dissolve Solid (mg/l)	170	176	186	500	2000
Calcium (mg/l)	41.68	30.46	30.46	75.00	200.00
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)	15	6	40.49	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.21	0.36	0.49	1	1.5
Arsenic (mg/l)	<0.002	0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.21	5	15
Total Chromium (mg/l)	0.08	0.07	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :169
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Tap water at Budhijaam colony				
Dt. of sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.42	7.32	7.42	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	76	80	32	200	600
Total Hardness (mg/l)	88	92	36	200	600
Iron (mg/l)	0.06	0.19	0.07	0.3	No relaxation
Chloride (mg/l)	18	30	22	250	1000
Total Dissolve Solid (mg/l)	236	263	168	500	2000
Calcium (mg/l)	19.23	12.63	11.22	75.00	200.00
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.02	0.1	<0.02	0.1	0.3
Sulphate (mg/l)	31	37	13.2	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.62	0.62	0.25	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.17	0.329	0.12	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :170
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Budhijaam colony				
Monitoring Station	12-Oct-18	12-Nov-18	12-Dec-18	Acceptable	Permissible
Dt. of sampling	12-Oct-18	12-Nov-18	12-Dec-18	Acceptable	Permissible
Colour (Hazen)	2	1	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	2	1	5
pH	6.89	7.45	7.54	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	68	64	200	600
Total Hardness (mg/l)	64	96	56	200	600
Iron (mg/l)	<0.06	0.17	<0.06	0.3	No relaxation
Chloride (mg/l)	8	24	16	250	1000
Total Dissolve Solid (mg/l)	148	236	172	500	2000
Calcium (mg/l)	14.40	17.60	12.80	75.00	200.00
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)	6.84	42.2	5	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.29	0.25	0.26	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.11	0.29	0.06	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :171
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Budhijaam colony				
Monitoring Station	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Dt. of sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	3	5	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	<1	1	1	5
pH	7.60	7.78	7.42	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	68	60	200	600
Total Hardness (mg/l)	56	60	60	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	12	12	250	1000
Total Dissolve Solid (mg/l)	148	152	148	500	2000
Calcium (mg/l)	12.80	16.00	14.40	75.00	200.00
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)	7.56	9.01	5.42	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.23	0.12	0.11	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.05	<0.002	0.03	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :172

AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Rampur colony				
Monitoring Station	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Dt. of sampling	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Colour (Hazen)	10	5	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	9		1	5
pH	7.92	7.75	7.33	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	12	20	200	600
Total Hardness (mg/l)	108	84	80	200	600
Iron (mg/l)	<0.06	<0.06	0.1	0.3	No relaxation
Chloride (mg/l)	32	108	34	250	1000
Total Dissolve Solid (mg/l)	196	248	156	500	2000
Calcium (mg/l)	32.06	40.08	28.86	75.00	200.00
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)	3	4	4.29	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.54	0.37	0.46	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.14	<0.02	0.17	5	15
Total Chromium (mg/l)	0.09	0.09	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :173
AREA: Orient

Project / OCP Monitoring Station	Orient Tap water at Rampur colony			Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable
Colour (Hazen)	4	4	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	1	1	5
pH	7.30	6.82	7.44	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	124	104	108	200	600
Total Hardness (mg/l)	92	80	88	200	600
Iron (mg/l)	0.07	0.2	0.09	0.3	No relaxation
Chloride (mg/l)	26	42	34	250	1000
Total Dissolve Solid (mg/l)	277	274	258	500	2000
Calcium (mg/l)	24.05	19.24	20.84	75.00	200.00
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.08	<0.02	0.1	0.3
Sulphate (mg/l)	7	12	6.38	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.53	0.73	0.18	1	1.5
Arsenic (mg/l)	0.003	<0.002	0.003	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.55	0.25	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :174
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Rampur colony				
Dt. of sampling	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	4	6	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	4	3	1	5
pH	7.02	7.40	7.46	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	96	76	112	200	600
Total Hardness (mg/l)	96	108	96	200	600
Iron (mg/l)	<0.06	0.21	<0.06	0.3	No relaxation
Chloride (mg/l)	24	24	36	250	1000
Total Dissolve Solid (mg/l)	232	256	276	500	2000
Calcium (mg/l)	20.80	20.80	22.40	75.00	200.00
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)	8.53	40.8	10.1	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.31	0.31	0.02	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.15	<0.02	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :175
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Tap water at Rampur colony				
Monitoring Station	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Dt. of sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	8	6	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	12	1	4	1	5
pH	7.55	7.67	7.19	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	112	60	116	200	600
Total Hardness (mg/l)	96	64	84	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	30	12	22	250	1000
Total Dissolve Solid (mg/l)	268	184	226	500	2000
Calcium (mg/l)	22.40	19.20	17.60	75.00	200.00
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)	3.7	11.96	1.7	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.25	0.12	0.31	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.07	<0.02	0.16	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	0.261	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :176

AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 1 & 2 filter plant				
Monitoring Station	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Dt. of sampling	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Colour (Hazen)	9	6	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	8	-	1	5
pH	7.24	7.2	7.34	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	24	16	8	200	600
Total Hardness (mg/l)	144	80	96	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	36	34	34	250	1000
Total Dissolve Solid (mg/l)	248	224	160	500	2000
Calcium (mg/l)	38.48	32.06	25.65	75.00	200.00
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)	3	4	19.58	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.77	0.42	0.38	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.16	0.03	5	15
Total Chromium (mg/l)	<0.05	0.07	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :177
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Mine no 1 & 2 filter plant				
Dt. of sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	5	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.28	6.7	6.97	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	88	72	96	200	600
Total Hardness (mg/l)	76	88	76	200	600
Iron (mg/l)	0.07	0.28	0.08	0.3	No relaxation
Chloride (mg/l)	26	10	38	250	1000
Total Dissolve Solid (mg/l)	228	232	302	500	2000
Calcium (mg/l)	12.82	16.03	17.63	75.00	200.00
Copper (mg/l)	0.04	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.23	<0.02	0.1	0.3
Sulphate (mg/l)	19	43	10.23	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.6	0.74	0.43	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	0.01	0.01	No relaxation
Zinc (mg/L)	0.08	0.09	0.13	5	15
Total Chromium (mg/l)	<0.05	<0.005	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :178

AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 1 & 2 filter plant				
Monitoring Station	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Dt. of sampling	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	3	7	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	4	4	1	5
pH	6.56	7.28	7.04	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	64	64	92	200	600
Total Hardness (mg/l)	116	100	84	200	600
Iron (mg/l)	<0.06	0.16	<0.06	0.3	No relaxation
Chloride (mg/l)	24	22	32	250	1000
Total Dissolve Solid (mg/l)	254	252	246	500	2000
Calcium (mg/l)	19.20	16.00	12.80	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.03	<0.02	0.1	0.3
Sulphate (mg/l)	40.21	43.6	12.9	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.29	0.41	0.54	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.03	0.12	0.17	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :179
AREA: Orient

Project / OCP Monitoring Station	Orient Mine no 1 & 2 filter plant			Indian Drinking Standards (IS-10500):2012	
	Dt. of sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable
Colour (Hazen)	11	11	9	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	4	2	1	5
pH	7.99	7.51	7.11	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	108	116	116	200	600
Total Hardness (mg/l)	100	100	100	200	600
Iron (mg/l)	<0.06	0.08	<0.06	0.3	No relaxation
Chloride (mg/l)	32	32	34	250	1000
Total Dissolve Solid (mg/l)	256	244	268	500	2000
Calcium (mg/l)	20.80	17.60	19.20	75.00	200.00
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)	8.85	3.99	3.4	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.87	0.15	0.31	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :180
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 3 filter plant				
Monitoring Station	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Dt. of sampling	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Colour (Hazen)	8	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5	9		1	5
pH	6.85	6.95	6.86	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	12	8	200	600
Total Hardness (mg/l)	112	84	112	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	28	28	28	250	1000
Total Dissolve Solid (mg/l)	238	192	192	500	2000
Calcium (mg/l)	35.27	33.67	25.65	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.25	0.24	0.19	0.1	0.3
Sulphate (mg/l)	38	34	39.74	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.76	0.45	0.41	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.67	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	0.09	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :181
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 3 filter plant				
Monitoring Station	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Dt. of sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	2	1	5
pH	7.13	7.38	6.77	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	72	116	48	200	600
Total Hardness (mg/l)	104	84	100	200	600
Iron (mg/l)	0.1	0.22	0.15	0.3	No relaxation
Chloride (mg/l)	26	56	26	250	1000
Total Dissolve Solid (mg/l)	273	268	282	500	2000
Calcium (mg/l)	24.04	14.43	17.63	75.00	200.00
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.02	0.08	0.21	0.1	0.3
Sulphate (mg/l)	40	8	64.68	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.62	0.66	0.25	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.07	0.18	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :182
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 3 filter plant				
Monitoring Station	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Dt. of sampling	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	2	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	3	4	1	5
pH	7.57	7.48	7.05	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	144	100	64	200	600
Total Hardness (mg/l)	128	88	104	200	600
Iron (mg/l)	<0.06	0.45	0.11	0.3	No relaxation
Chloride (mg/l)	32	30	26	250	1000
Total Dissolve Solid (mg/l)	338	244	262	500	2000
Calcium (mg/l)	32.00	17.60	20.80	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.02	0.14	0.1	0.3
Sulphate (mg/l)	6	6.4	45.3	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.44	0.39	0.37	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	0.01	0.05
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.03	0.07	0.09	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :183
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	Mine no 3 filter plant				
Monitoring Station	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Dt. of sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	23	18	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	1	1	5
pH	7.06	6.82	6.65	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	72	72	68	200	600
Total Hardness (mg/l)	108	96	96	200	600
Iron (mg/l)	<0.06	0.1	<0.06	0.3	No relaxation
Chloride (mg/l)	24	20	24	250	1000
Total Dissolve Solid (mg/l)	272	230	230	500	2000
Calcium (mg/l)	22.40	17.60	17.60	75.00	200.00
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)	45.68	38.83	41.01	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.35	0.15	0.29	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.05	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :184
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	HBI filter plant				
Monitoring Station	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Dt. of sampling	12-Apr-18	11-May-18	12-Jun-18	Acceptable	Permissible
Colour (Hazen)	5	5	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	4	8		1	5
pH	7.05	7.91	6.84	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	28	8	20	200	600
Total Hardness (mg/l)	92	88	132	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	28	28	34	250	1000
Total Dissolve Solid (mg/l)	188	160	190	500	2000
Calcium (mg/l)	32.06	19.24	22.44	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	<0.02	0.05	0.1	0.3
Sulphate (mg/l)	3	4	3.14	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.47	0.51	0.63	1	1.5
Arsenic (mg/l)	<0.002	0.004	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	0.08	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :185
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	HBI filter plant				
Monitoring Station	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Dt. of sampling	10-Jul-18	10-Aug-18	12-Sep-18	Acceptable	Permissible
Colour (Hazen)	4	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	1	1	5
pH	7.71	7.92	7.90	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	116	46	116	200	600
Total Hardness (mg/l)	104	76	60	200	600
Iron (mg/l)	0.08	0.22	0.11	0.3	No relaxation
Chloride (mg/l)	26	18	36	250	1000
Total Dissolve Solid (mg/l)	281	177	248	500	2000
Calcium (mg/l)	17.63	14.43	17.63	75.00	200.00
Copper (mg/l)	0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.03	0.09	<0.02	0.1	0.3
Sulphate (mg/l)	9	11	9.02	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.58	0.74	0.24	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	0.07	0.06	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :186
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	HBI filter plant				
Monitoring Station	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Dt. of sampling	12-Oct-18	12-Nov-18	11-Dec-18	Acceptable	Permissible
Colour (Hazen)	2	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	3	1	5
pH	7.85	7.35	7.84	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	116	104	116	200	600
Total Hardness (mg/l)	96	92	100	200	600
Iron (mg/l)	<0.06	0.24	<0.06	0.3	No relaxation
Chloride (mg/l)	30	34	34	250	1000
Total Dissolve Solid (mg/l)	256	252	284	500	2000
Calcium (mg/l)	22.40	20.80	22.40	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	<0.02	0.03	<0.02	0.1	0.3
Sulphate (mg/l)	5.62	7.5	11.6	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.36	0.51	0.27	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	0.05	0.08	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :187
AREA: Orient

Project / OCP	Orient			Indian Drinking Standards (IS-10500):2012	
	HBI filter plant				
Monitoring Station	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Dt. of sampling	16-Jan-19	12-Feb-19	14-Mar-19	Acceptable	Permissible
Colour (Hazen)	6	4	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	<1	1	1	5
pH	7.79	7.84	6.67	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	112	60	116	200	600
Total Hardness (mg/l)	88	72	92	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	30	14	26	250	1000
Total Dissolve Solid (mg/l)	244	168	242	500	2000
Calcium (mg/l)	17.60	19.20	19.20	75.00	200.00
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)	5.95	13.52	3.87	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.31	0.18	0.50	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.02	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :188
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Inlet to water treatment plant (anand vihar)			Acceptable	Permissible
Monitoring Station	13-Apr-18	13-Jun-18	12-Jul-18		
Dt. of sampling	13-Apr-18	13-Jun-18	12-Jul-18	Acceptable	Permissible
Colour (Hazen)	6	5	5	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	6		1	1	5
pH	7.73	7.18	7.54	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	16	72	200	600
Total Hardness (mg/l)	76	132	88	200	600
Iron (mg/l)	<0.06	0.1	0.07	0.3	No relaxation
Chloride (mg/l)	18	20	20	250	1000
Total Dissolve Solid (mg/l)	168	184	219	500	2000
Calcium (mg/l)	32.06	25.65	19.23	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.05	0.05	1.5
Manganese (mg/l)	0.03	<0.02	0.02	0.1	0.3
Sulphate (mg/l)	15	9.99	14	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.31	0.59	0.47	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.32	<0.02	0.09	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :189
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Inlet to water treatment plant (anand vihar)			Acceptable	Permissible
Monitoring Station	11-Sep-18	12-Dec-18	13-Mar-19		
Dt. of sampling	11-Sep-18	12-Dec-18	13-Mar-19	Acceptable	Permissible
Colour (Hazen)	8	3	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	1	1	5
pH	7.20	7.33	7.47	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	60	60	60	200	600
Total Hardness (mg/l)	52	76	68	200	600
Iron (mg/l)	0.27	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	14	14	250	1000
Total Dissolve Solid (mg/l)	152	174	192	500	2000
Calcium (mg/l)	19.23	22.40	19.20	75.00	200.00
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)	12.32	8.8	10.21	200	400
Nitrate (mg/l)	-	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.27	0.31	0.41	1	1.5
Arsenic (mg/l)	0.003	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.08	0.03	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :190
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Outlet to water treatment plant (anand vihar)				
Monitoring Station					
Dt. of sampling	13-Apr-18	13-Jun-18	12-Jul-18	Acceptable	Permissible
Colour (Hazen)	8	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	5		2	1	5
pH	7.47	7.71	7.26	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	12	8	60	200	600
Total Hardness (mg/l)	100	96	80	200	600
Iron (mg/l)	<0.06	0.07	0.1	0.3	No relaxation
Chloride (mg/l)	18	18	22	250	1000
Total Dissolve Solid (mg/l)	180	160	207	500	2000
Calcium (mg/l)	35.27	20.84	20.84	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	0.02	<0.02	0.03	0.1	0.3
Sulphate (mg/l)	12	10.26	19	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.39	0.60	0.47	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.1	0.07	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :191
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Outlet to water treatment plant (anand vihar)			Acceptable	Permissible
Monitoring Station	11-Sep-18	12-Dec-18	13-Mar-19		
Dt. of sampling	11-Sep-18	12-Dec-18	13-Mar-19	Acceptable	Permissible
Colour (Hazen)	4	1	6	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	3	1	1	5
pH	7.05	7.40	7.25	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	40	52	72	200	600
Total Hardness (mg/l)	56	72	64	200	600
Iron (mg/l)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	16	14	12	250	1000
Total Dissolve Solid (mg/l)	188	166	160	500	2000
Calcium (mg/l)	19.23	20.80	20.80	75.00	200.00
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)	25.96	11.9	7.74	200	400
Nitrate (mg/l)	-	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.30	0.28	0.47	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.05	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.05	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :192
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			Tap water at DAV school (anand vihar)	
Dt. of sampling	12-May-18	13-Jun-18	12-Jul-18	Acceptable	Permissible
Colour (Hazen)	2.0	2.0	5.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	9	-	3	1	5
pH	8.11	7.62	7.47	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	12	64	200	600
Total Hardness (mg/l)	84	120	80	200	600
Iron (mg/l)	<0.06	<0.06	0.08	0.3	No relaxation
Chloride (mg/l)	18	22	16	250	1000
Total Dissolve Solid (mg/l)	188	174	218	500	2000
Calcium (mg/l)	25.65	22.44	20.84	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	0.04	<0.02	0.03	0.1	0.3
Sulphate (mg/l)	10	15.7	22	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.45	0.43	0.55	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.02	5	15
Total Chromium (mg/l)	0.09	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :193
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			Tap water at DAV school (anand vihar)	
Dt. of sampling	11-Aug-18	11-Sep-18	13-Oct-18	Acceptable	Permissible
Colour (Hazen)	2.0	3.0	2.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	1	1	5
pH	7.08	7.25	6.99	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	36	40	200	600
Total Hardness (mg/l)	60	48	76	200	600
Iron (mg/l)	0.21	0.09	<0.06	0.3	No relaxation
Chloride (mg/l)	22	18	10	250	1000
Total Dissolve Solid (mg/l)	158	140	176	500	2000
Calcium (mg/l)	11.22	16.03	16.00	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.12	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	44	30.14	14.9	200	400
Nitrate (mg/l)	-	-	<0.5	45	No relaxation
Fluoride (mg/l)	0.47	0.26	0.34	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.15	0.12	0.07	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :194
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			Tap water at DAV school (anand vihar)	
Dt. of sampling	10-Nov-18	12-Dec-18	15-Jan-19	Acceptable	Permissible
Colour (Hazen)	2.0	2.0	4.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	1	1	1	5
pH	7.37	7.71	7.50	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	48	60	52	200	600
Total Hardness (mg/l)	64	68	64	200	600
Iron (mg/l)	0.16	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	12	14	14	250	1000
Total Dissolve Solid (mg/l)	146	168	150	500	2000
Calcium (mg/l)	16.00	20.80	19.20	75.00	200.00
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)	19.4	11.5	18.1	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.28	0.32	0.33	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.07	0.02	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :195
AREA: MCL HQ

Project / OCP	MCL HQ		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station		Tap water at DAV school (anand vihar)	
Dt. of sampling	13-Feb-19	13-Mar-19	Acceptable	Permissible
Colour (Hazen)	9.0	9.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	<1	2	1	5
pH	7.50	7.85	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	124	64	200	600
Total Hardness (mg/l)	92	72	200	600
Iron (mg/l)	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	26	14	250	1000
Total Dissolve Solid (mg/l)	230	166	500	2000
Calcium (mg/l)	19.20	20.80	75.00	200.00
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)	4.85	15.01	200	400
Nitrate (mg/l)	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.13	0.49	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	5	15
Total Chromium (mg/l)	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	0.003	No relaxation

Table :196
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			Tap water at corporate office (jagruti vihar)	
Dt. of sampling	12-May-18	13-Jun-18	12-Jul-18	Acceptable	Permissible
Colour (Hazen)	7.0	3.0	3.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	8		2	1	5
pH	7.73	7.73	7.71	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	16	12	68	200	600
Total Hardness (mg/l)	116	92	76	200	600
Iron (mg/l)	<0.06	<0.06	0.09	0.3	No relaxation
Chloride (mg/l)	46	24	22	250	1000
Total Dissolve Solid (mg/l)	228	156	213	500	2000
Calcium (mg/l)	36.9	32.1	20.8	75.00	200.00
Copper (mg/l)	<0.03	<0.03	0.04	0.05	1.5
Manganese (mg/l)	0.04	<0.02	0.02	0.1	0.3
Sulphate (mg/l)	12	17.27	14	200	400
Nitrate (mg/l)	-	-	-	45	No relaxation
Fluoride (mg/l)	0.38	0.45	0.30	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	0.03	5	15
Total Chromium (mg/l)	0.08	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :197
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station Tap water at corporate office (jagruti vihar)			Acceptable	Permissible
Dt. of sampling	11-Aug-18	11-Sep-18	13-Oct-18		
Colour (Hazen)	2.0	2.0	1.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	1	1	5
pH	7.20	6.82	6.92	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	20	32	48	200	600
Total Hardness (mg/l)	44	48	72	200	600
Iron (mg/l)	0.17	0.07	<0.06	0.3	No relaxation
Chloride (mg/l)	18	16	12	250	1000
Total Dissolve Solid (mg/l)	132	152	158	500	2000
Calcium (mg/l)	16.0	20.8	19.2	75.00	200.00
Copper (mg/l)	<0.03	<0.03	<0.03	0.05	1.5
Manganese (mg/l)	0.12	<0.02	<0.02	0.1	0.3
Sulphate (mg/l)	43	33.99	15.28	200	400
Nitrate (mg/l)	-	-	<0.5	45	No relaxation
Fluoride (mg/l)	0.52	0.39	0.25	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.06	0.1	0.16	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	-	-	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :198
AREA: MCL HQ

Project / OCP	MCL HQ			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			Tap water at corporate office (jagruti vihar)	
Dt. of sampling	10-Nov-18	12-Dec-18	15-Jan-19	Acceptable	Permissible
Colour (Hazen)	3.0	1.0	5.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	1	1	5
pH	7.05	7.30	7.74	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	44	56	56	200	600
Total Hardness (mg/l)	60	72	68	200	600
Iron (mg/l)	0.17	0.08	<0.06	0.3	No relaxation
Chloride (mg/l)	16	16	12	250	1000
Total Dissolve Solid (mg/l)	140	174	162	500	2000
Calcium (mg/l)	17.6	22.4	20.8	75.00	200.00
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)	16.9	11.8	12.38	200	400
Nitrate (mg/l)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.31	0.24	0.28	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	0.15	0.12	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	-	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :199
AREA: MCL HQ

Project / OCP	MCL HQ		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			
	Tap water at corporate office (jagriti vihar)			
Dt. of sampling	13-Feb-19	13-Mar-19	Acceptable	Permissible
Colour (Hazen)	4.0	6.0	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	1	1	5
pH	7.73	7.68	6.5-8.5	No relaxation
Total Alkalinity (mg/l)	124	64	200	600
Total Hardness (mg/l)	84	68	200	600
Iron (mg/l)	<0.06	<0.06	0.3	No relaxation
Chloride (mg/l)	28	14	250	1000
Total Dissolve Solid (mg/l)	248	162	500	2000
Calcium (mg/l)	19.2	20.8	75.00	200.00
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)	7.11	13.62	200	400
Nitrate (mg/l)	<0.5	<0.5	45	No relaxation
Fluoride (mg/l)	0.17	0.45	1	1.5
Arsenic (mg/l)	<0.002	<0.002	<0.002	<0.002
Lead (mg/l)	<0.005	<0.005	0.01	No relaxation
Zinc (mg/L)	<0.02	0.04	5	15
Total Chromium (mg/l)	<0.05	<0.05	0.05	No relaxation
Boron (mg/l)	<0.2	<0.2	0.5	1.0
Cadmium (mg/l)	<0.0005	<0.0005	0.003	No relaxation

TABLES FOR WELL WATER LEVEL DATA

Table :200

Project: Samleswari OCP

Monitoring Station: Well water Ainlapali

Date of sampling	Water level
21-May-18	4.74
28-Aug-18	4.23
27-Nov-18	8.01
31-Jan-19	9.21

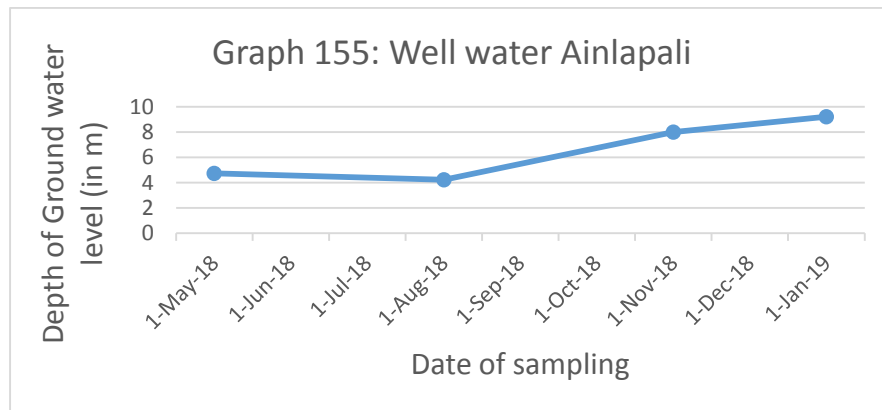


Table :201
Project: Samleswari OCP
Monitoring Station: Well water from chingriguda

Date of sampling	Water level
21-May-18	4.95
28-Aug-18	1.08
27-Nov-18	5.97
31-Jan-19	5.94

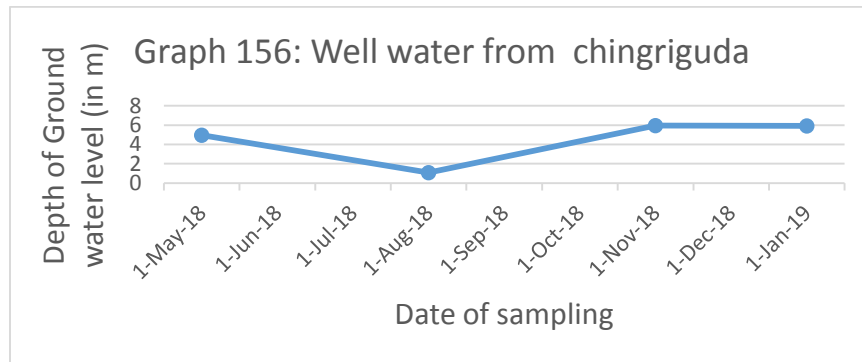


Table :202
Project: Samleswari OCP
Monitoring Station: Well water Kudopali

Date of sampling	Water level
21-May-18	5.91
28-Aug-18	2.22
27-Nov-18	6.06
31-Jan-19	6.75

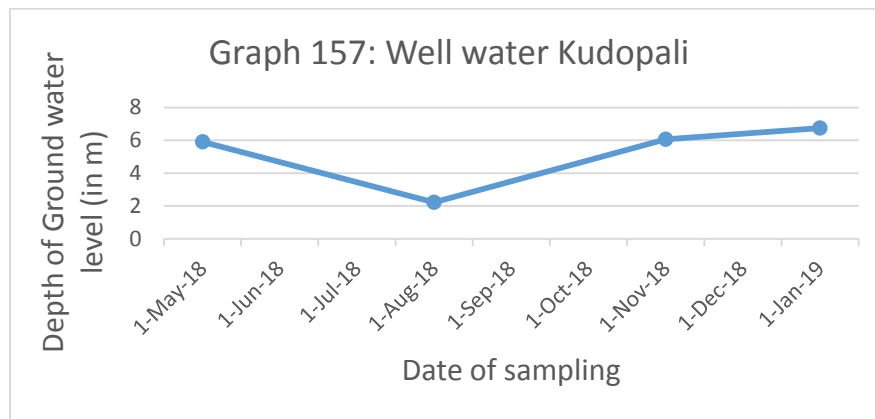


Table :203
Project: Samleswari OCP
Monitoring Station: Well water Lajkura

Date of sampling	Water level
21-May-18	4.98
28-Aug-18	2.58
27-Nov-18	4.32
31-Jan-19	4.74

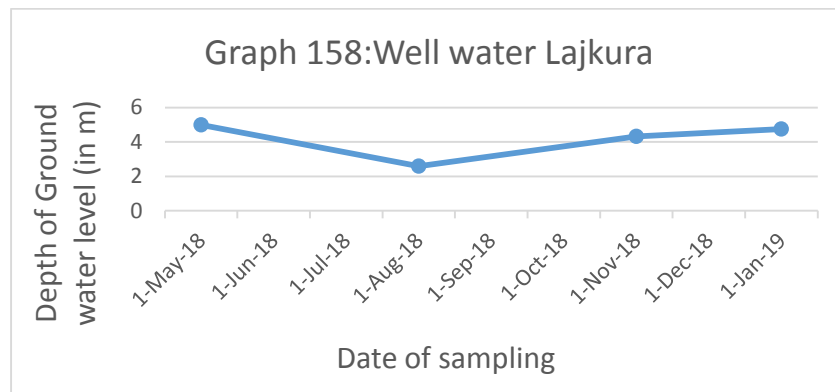


Table :204
Project: Lajkura OCP
Monitoring Station: Adarsh nagar colony well water

Date of sampling	Water level
18-May-18	5.25
28-Aug-18	3.12
26-Nov-18	4.29
23-Jan-19	4.92

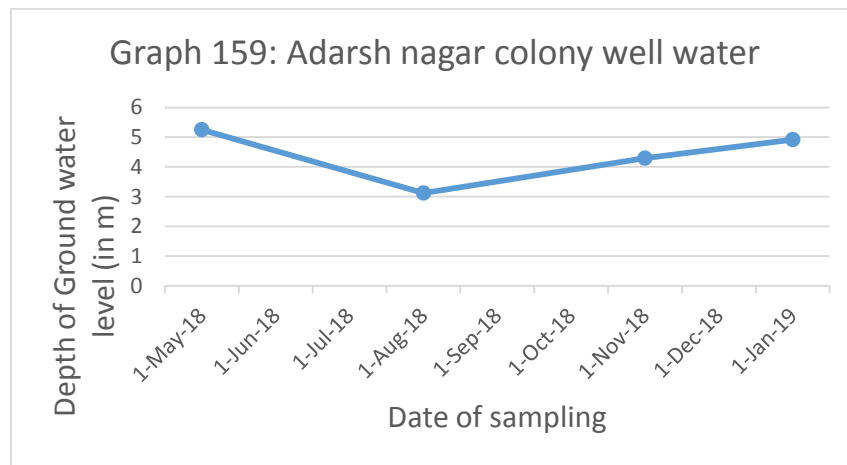


Table: 205
Project: Lajkura OCP
Monitoring Station: Chauliberna village well water

Date of sampling	Water level
18-May-18	5.49
28-Aug-18	1.05
26-Nov-18	4.17
23-Jan-19	4.44

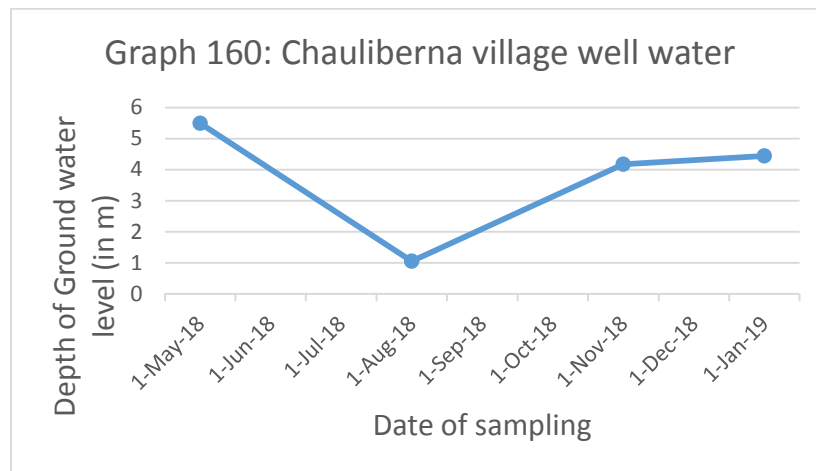


Table :206
Project: Lajkura OCP
Monitoring Station: Madhuban Nagar Well water

Date of sampling	Water level
18-May-18	N/A
28-Aug-18	7.08
26-Nov-18	9.03
23-Jan-19	9.78

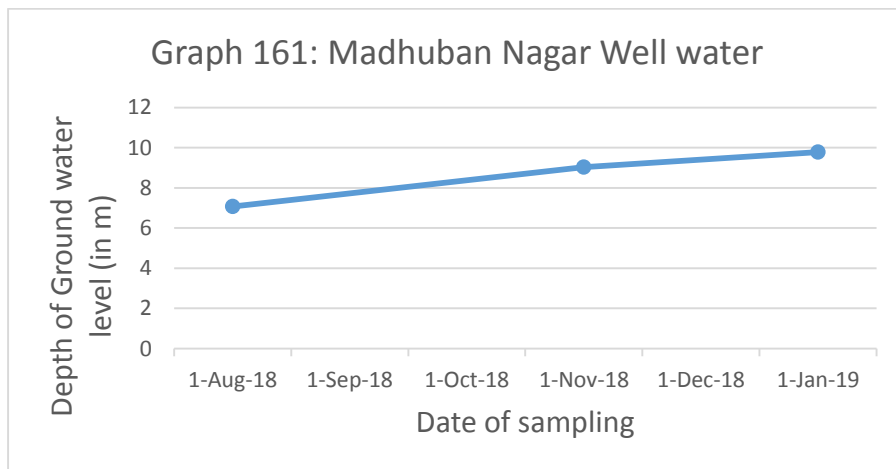


Table :207
Project: Kulda OCP
Monitoring Station: Well of Tumulia

Date of sampling	Water level
17-May-18	4.77
27-Aug-18	2.49
20-Nov-18	4.89
22-Jan-19	5.01

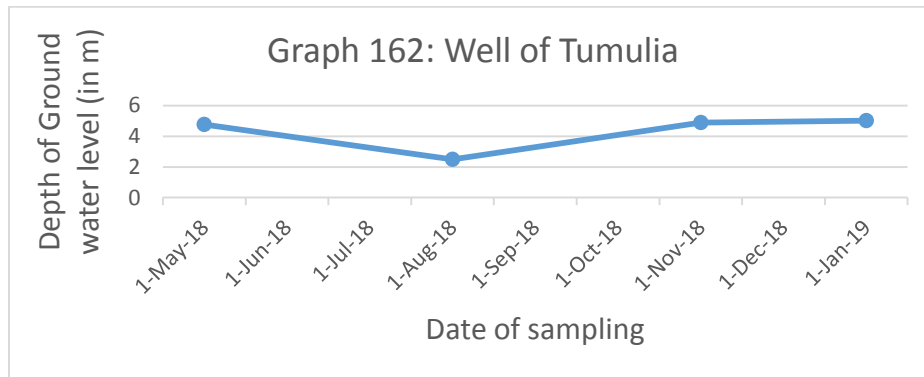


Table :208
Project: Kulda OCP
Monitoring Station: Well at Kulda

Date of sampling	Water level
17-May-18	DRY
27-Aug-18	0.78
20-Nov-18	0.99
22-Jan-19	4.32

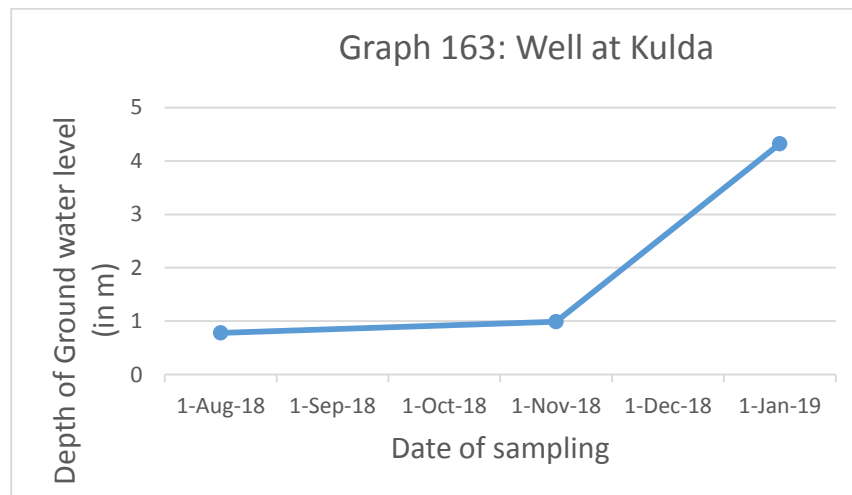


Table :209
Project: Basundhara OCP
Monitoring Station: Bankibhal village well

Date of sampling	Water level
17-May-18	5.67
27-Aug-18	1.02
20-Nov-18	1.92
22-Jan-19	3.36

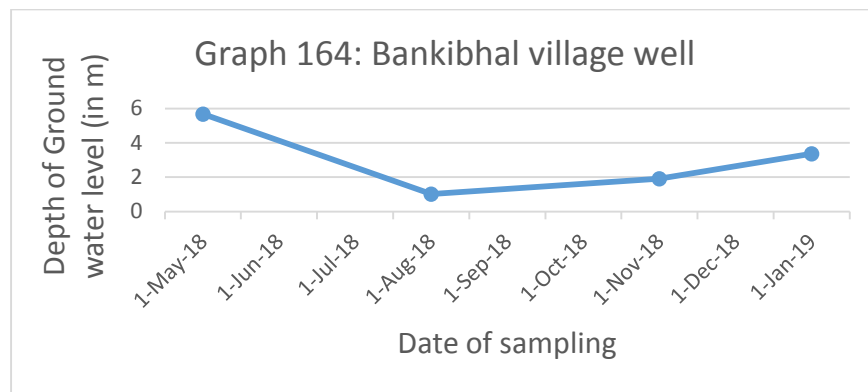


Table :210
Project: Basundhara OCP
Monitoring Station: Sardega village well

Date of sampling	Water level
17-May-18	6.81
27-Aug-18	1.62
20-Nov-18	3.06
22-Jan-19	3.75

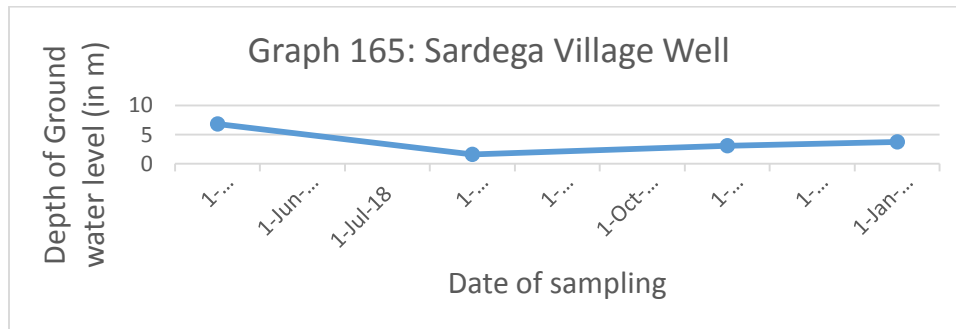


Table :211
Project: Basundhara OCP
Monitoring Station: Tiklipara Village Well

Date of sampling	Water level
17-May-18	DRY
27-Aug-18	3.42
20-Nov-18	2.97
22-Jan-19	4.38

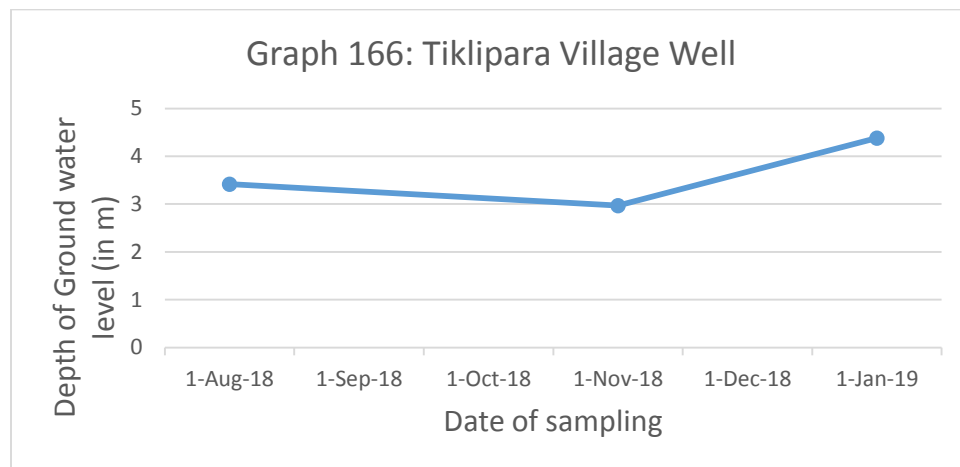


Table :212
Project: Lakhanpur
Monitoring Station: Darlipali village well water

Date of sampling	Water level
23-May-18	5.85
28-Aug-18	1.29
27-Nov-18	5.79
31-Jan-19	5.64

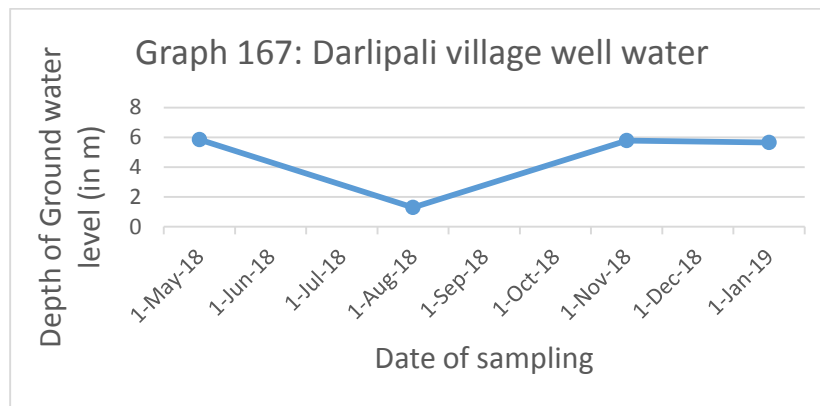
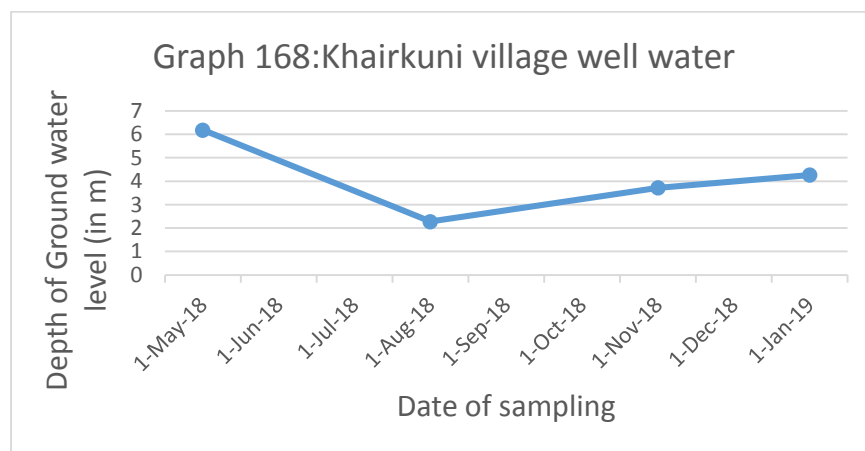


Table :213
Project: Lakhanpur
Monitoring Station: Khairkuni Village Well Water

Date of sampling	Water level
23-May-18	6.18
28-Aug-18	2.28
27-Nov-18	3.72
31-Jan-19	4.26



TABLES FOR SURFACE WATER QUALITY DATA

Table :214

AREA: IB VALLEY

Project/OCP	Samaleswari OCP				IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pandren Nallah Near Muchabahal				
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	7.51	6.05	6.81	6.84	6.5-8.5
Dissolved Oxygen(mg/L)	5.2	7.5	6.8	6.6	4
BOD (3 days 27oc(mg/L)	3.5	2.8	3.8	2.9	3
Color (Hazen unit)	5.0	3.0	10.0	9.0	300
Total dissolved solids (mg/L)	286	132	345	86	1500
Total Suspended Solids(mg/L)	20	7.2	52	48	-
Total Hardness(mg/L)	164	24	128	20	-
Copper(mg/L)	0.06	<0.03	<0.03	<0.02	1.5
Iron(mg/L)	<0.06	0.2	0.18	0.12	50
Chlorides(mg/L)	54	18	16	8	600
Sulphate(mg/L)	72.55	10.34	112.8	2.32	400
Nitrate (mg/L)	-	-	2.29	<0.5	50
Fluoride(mg/L)	0.65	0.30	0.33	0.21	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	0.003	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.002	0.1
Zinc(mg/L)	0.3	0.05	0.09	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

Table :215
AREA: IB VALLEY

Project/OCP	Samaleswari OCP				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Pandren Nallah Before Confluence Point with Lilari Nallah				
NAME OF STATIONS	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	7.82	7.10	6.83	6.78	6.5-8.5
Dissolved Oxygen(mg/L)	6	7.1	6.4	6.5	4
BOD (3 days 27oc(mg/L)	4.2	2.2	3.2	3.2	3
Color (Hazen unit)	4.0	5.0	7.0	8.0	300
Total dissolved solids (mg/L)	310	162	338	106	1500
Total Suspended Solids(mg/L)	36	16.4	58	59	-
Total Hardness(mg/L)	136	40	124	20	-
Copper(mg/L)	0.06	<0.03	<0.03	<0.02	1.5
Iron(mg/L)	0.13	0.07	0.28	0.14	50
Chlorides(mg/L)	20	22	18	14	600
Sulphate(mg/L)	125.00	23.00	110.00	2.79	400
Nitrate (mg/L)	-	-	1.52	<0.5	50
Fluoride(mg/L)	0.47	0.38	0.42	0.15	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	<0.02	<0.02	0.13	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	7.2	<4.0	<4.0	<4.0	0.1

Table :216
AREA: LAKHANPUR

Project/OCP	Lakhanpur OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari Nallah at Bridge Point Before Joining Ib River Near Dudolsingha Village		
Date of sampling	29-Jun-18	29-Dec-18	
pH	6.73	7.38	6.5-8.5
Dissolved Oxygen(mg/L)	5	7.1	4
BOD (3 days 27oc(mg/L)	3.4	2.8	3
Color (Hazen unit)	2	1	300
Total dissolved solids (mg/L)	594	136	1500
Total Suspended Solids(mg/L)	18	34	-
Total Hardness(mg/L)	304	68	-
Copper(mg/L)	0.06	<0.03	1.5
Iron(mg/L)	<0.06	0.09	50
Chlorides(mg/L)	24	20	600
Sulphate(mg/L)	209.07	17.4	400
Nitrate (mg/L)	-	<0.5	50
Fluoride(mg/L)	0.39	0.68	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	-	<0.005	0.1
Zinc(mg/L)	0.35	0.05	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :217
AREA: LAKHANPUR

Project/OCP	Lakhanpur OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond water at Samra village		
Date of sampling	29-Jun-18	29-Dec-18	
pH	7.47	7.36	6.5-8.5
Dissolved Oxygen(mg/L)	3.4	6.1	4
BOD (3 days 27oc(mg/L)	1.2	4.2	3
Color (Hazen unit)	-	24	300
Total dissolved solids (mg/L)	262	412	1500
Total Suspended Solids(mg/L)	6	64	-
Total Hardness(mg/L)	108	168	-
Copper(mg/L)	0.07	<0.03	1.5
Iron(mg/L)	<0.06	0.5	50
Chlorides(mg/L)	62	82	600
Sulphate(mg/L)	16.52	41.4	400
Nitrate (mg/L)	-	1.92	50
Fluoride(mg/L)	0.56	0.56	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	-	<0.005	0.1
Zinc(mg/L)	0.02	0.11	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :218
AREA: LAKHANPUR

Project/OCP	Lakhanpur OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pulijhor stream Near Darlipalil Village before Confluence to Lilari Nallah as d/s Water of Lakhanpur OCP		
Date of sampling	29-Jun-18	29-Dec-18	
pH	6.89	7.69	6.5-8.5
Dissolved Oxygen(mg/L)	3.8	6.8	4
BOD (3 days 27oc(mg/L)	2.4	3.4	3
Color (Hazen unit)	4	8	300
Total dissolved solids (mg/L)	198	346	1500
Total Suspended Solids(mg/L)	8	44	-
Total Hardness(mg/L)	80	136	-
Copper(mg/L)	0.06	<0.03	1.5
Iron(mg/L)	0.14	0.18	50
Chlorides(mg/L)	16	16	600
Sulphate(mg/L)	57.93	110.6	400
Nitrate (mg/L)		1.25	50
Fluoride(mg/L)	0.65	0.22	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)		<0.005	0.1
Zinc(mg/L)	<0.02	0.06	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table: 219
AREA: LAKHANPUR

Project/OCP	Lakhanpur OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pulijhor Stream Near Tingismal Village as u/s for Lakhanpur OCP		
Date of sampling	29-Jun-18	29-Dec-18	
pH	7.01	6.91	6.5-8.5
Dissolved Oxygen(mg/L)	4	7.2	4
BOD (3 days 27oc)(mg/L)	2.1	2.8	3
Color (Hazen unit)	3	6	300
Total dissolved solids (mg/L)	126	332	1500
Total Suspended Solids(mg/L)	16	48	-
Total Hardness(mg/L)	20	128	-
Copper(mg/L)	0.06	<0.03	1.5
Iron(mg/L)	0.54	0.17	50
Chlorides(mg/L)	18	18	600
Sulphate(mg/L)	7.52	112	400
Nitrate (mg/L)	-	1.14	50
Fluoride(mg/L)	0.71	0.55	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	-	<0.005	0.1
Zinc(mg/L)	0.13	0.06	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :220
AREA: LAKHANPUR

Project/OCP	Belpahar OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari Nallah Near Gouraparha Village at Bridge Point of NH 200 as u/s Water for Lakhanpur OCP and Belpahar OCP		
Date of sampling	28-Jun-18	27-Dec-18	
pH	6.65	7.49	6.5-8.5
Dissolved Oxygen(mg/L)	4.2	6.8	4
BOD (3 days 27oc)(mg/L)	2.2	4	3
Color (Hazen unit)	5	5	300
Total dissolved solids (mg/L)	114	184	1500
Total Suspended Solids(mg/L)	12	46	-
Total Hardness(mg/L)	24	68	-
Copper(mg/L)	0.05	<0.03	1.5
Iron(mg/L)	0.5	0.13	50
Chlorides(mg/L)	16	18	600
Sulphate(mg/L)	12.64	20.2	400
Nitrate (mg/L)	-	<0.5	50
Fluoride(mg/L)	0.61	0.45	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	-	<0.005	0.1
Zinc(mg/L)	0.09	0.13	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :221
AREA: LAKHANPUR

Project/OCP	Belpahar OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Lilari Nallah Near Kirarama Village as d/s of Lakhanpur OCP and Belpahar OCP		
Date of sampling	28-Jun-18	27-Dec-18	
pH	6.77	7.05	6.5-8.5
Dissolved Oxygen(mg/L)	4	5.8	4
BOD (3 days 27oc(mg/L)	2.7	4.3	3
Color (Hazen unit)	4	5	300
Total dissolved solids (mg/L)	145	696	1500
Total Suspended Solids(mg/L)	10	74	-
Total Hardness(mg/L)	68	276	-
Copper(mg/L)	0.06	<0.03	1.5
Iron(mg/L)	0.17	0.06	50
Chlorides(mg/L)	16	18	600
Sulphate(mg/L)	57.6	287.7	400
Nitrate (mg/L)	-	6.93	50
Fluoride(mg/L)	0.57	0.39	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)		<0.005	0.1
Zinc(mg/L)	0.05	0.25	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :222
AREA: LAKHANPUR

Project/OCP	Belpahar OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	IB River Near Dumermunda village as d/s of the Coalfield Before Joining to Hirakud Reservoir		
Date of sampling	27-Dec-18	28-Jun-18	
pH	7.56	7.48	6.5-8.5
Dissolved Oxygen(mg/L)	6.9	3.6	4
BOD (3 days 27oc)(mg/L)	2.9	2.6	3
Color (Hazen unit)	8	3	300
Total dissolved solids (mg/L)	186	142	1500
Total Suspended Solids(mg/L)	38	21	-
Total Hardness(mg/L)	64	44	-
Copper(mg/L)	<0.03	0.06	1.5
Iron(mg/L)	0.33	0.37	50
Chlorides(mg/L)	20	14	600
Sulphate(mg/L)	20	35.86	400
Nitrate (mg/L)	<0.5		50
Fluoride(mg/L)	0.58	0.47	1.5
Cadmium (mg/L)	<0.0005	-	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	<0.005		0.1
Zinc(mg/L)	0.09	0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :223
AREA: LAKHANPUR

Project/OCP	Belpahar OCP		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Hirakud Reservoir for Impact Assessment of the Coalfield		
Date of sampling	27-Dec-18	28-Jun-18	
pH	7.04	7.15	6.5-8.5
Dissolved Oxygen(mg/L)	6.4	4.4	4
BOD (3 days 27oc)(mg/L)	4.8	2.6	3
Color (Hazen unit)	5	2	300
Total dissolved solids (mg/L)	216	1 00	1500
Total Suspended Solids(mg/L)	78	6	-
Total Hardness(mg/L)	64	68	-
Copper(mg/L)	<0.03	0.07	1.5
Iron(mg/L)	0.09	0.09	50
Chlorides(mg/L)	18	20	600
Sulphate(mg/L)	19.3	12.31	400
Nitrate (mg/L)	<0.5	-	50
Fluoride(mg/L)	0.52	0.53	1.5
Cadmium (mg/L)	<0.0005	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	<0.005	-	0.1
Zinc(mg/L)	0.08	0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :224
AREA: BASUNDHARA

Project/OCP	Kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near kusura village as water of kulda OCP	
Date of sampling	27-Feb-19	
pH	Dry	6.5-8.5
Dissolved Oxygen(mg/L)	Dry	4
BOD (3 days 27oc)(mg/L)	Dry	3
Color (Hazen unit)	Dry	300
Total dissolved solids (mg/L)	Dry	1500
Total Suspended Solids(mg/L)	Dry	-
Total Hardness(mg/L)	Dry	-
Copper(mg/L)	Dry	1.5
Iron(mg/L)	Dry	50
Chlorides(mg/L)	Dry	600
Sulphate(mg/L)	Dry	400
Nitrate (mg/L)	Dry	50
Fluoride(mg/L)	Dry	1.5
Cadmium (mg/L)	Dry	0.005
Arsenic(mg/L)	Dry	0.2
Lead (mg/L)	Dry	0.1
Zinc(mg/L)	Dry	15
Hexavalent Chromium(mg/L)	Dry	0.05
Oil & Grease	Dry	0.1

Table :225
AREA: BASUNDHARA

Project/OCP	Kulda OCP	
NAME OF STATIONS	Basundhara river near kulaparha village just after meeting point of Basundhara and Chhaturdhara river as u/s of kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
Date of sampling	27-Feb-19	
pH	6.70	
Dissolved Oxygen(mg/L)	6.8	6.5-8.5
BOD (3 days 27oc)(mg/L)	2.4	4
Color (Hazen unit)	11	3
Total dissolved solids (mg/L)	176	300
Total Suspended Solids(mg/L)	67	1500
Total Hardness(mg/L)	28	-
Copper(mg/L)	<0.03	-
Iron(mg/L)	<0.06	1.5
Chlorides(mg/L)	8	50
Sulphate(mg/L)	5.55	600
Nitrate (mg/L)	<0.5	400
Fluoride(mg/L)	0.11	50
Cadmium (mg/L)	<0.0005	1.5
Arsenic(mg/L)	<0.002	0.005
Lead (mg/L)	<0.005	0.2
Zinc(mg/L)	<0.02	0.1
Hexavalent Chromium(mg/L)	<0.01	15
Oil & Grease	<4.0	0.05

Table :226
AREA: BASUNDHARA

Project/OCP	Kulda OCP	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Basundhara river near Tiklipara village as d/s of kulda OCP	
Date of sampling	27-Feb-19	
pH	6.66	6.5-8.5
Dissolved Oxygen(mg/L)	6.1	4
BOD (3 days 27oc)(mg/L)	3.1	3
Color (Hazen unit)	14	300
Total dissolved solids (mg/L)	192	1500
Total Suspended Solids(mg/L)	78	-
Total Hardness(mg/L)	76	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	<0.06	50
Chlorides(mg/L)	36	600
Sulphate(mg/L)	10.75	400
Nitrate (mg/L)	<0.05	50
Fluoride(mg/L)	0.42	1.5
Cadmium (mg/L)	<0.0005	0.005
Arsenic(mg/L)	<0.002	0.2
Lead (mg/L)	<0.005	0.1
Zinc(mg/L)	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	0.05
Oil & Grease	<4.0	0.1

Table :227
Area: ORIENT

Project/OCP	Orient Mine No. 1 &2		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Bhedan River Before Confluence Point with IB River		
Date of sampling	26-Sep-18	28-Dec-18	
pH	7.65	7.12	6.5-8.5
Dissolved Oxygen(mg/L)	7.3	6.5	4
BOD (3 days 27oc)(mg/L)	1.6	3.6	3
Color (Hazen unit)	6.0	3.0	300
Total dissolved solids (mg/L)	156	274	1500
Total Suspended Solids(mg/L)	48.8	54	-
Total Hardness(mg/L)	60	96	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.25	0.13	50
Chlorides(mg/L)	20	18	600
Sulphate(mg/L)	12	62.1	400
Nitrate (mg/L)	-	<0.5	50
Fluoride(mg/L)	0.36	0.59	1.5
Cadmium (mg/L)	-	<0.0005	0.005
Selenium (mg/L)	-	-	0.005
Arsenic(mg/L)	<0.002	<0.002	0.2
Lead (mg/L)	-	<0.005	0.1
Zinc(mg/L)	<0.02	0.12	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	0.1

Table :228
Area: ORIENT

Project/OCP	Orient Mine No. 1&2				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Bhedan River Before Confluence Point with IB River				
	Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	
pH	7.33	7.65	7.12	6.86	6.5-8.5
Dissolved Oxygen(mg/L)	4	7.3	6.5	6.7	4
BOD (3 days 27oc)(mg/L)	2.4	1.6	3.6	3.1	3
Color (Hazen unit)	1.0	6.0	3.0	10.0	300
Total dissolved solids (mg/L)	152	156	274	110	1500
Total Suspended Solids(mg/L)	8	48.8	54	54	-
Total Hardness(mg/L)	72	60	96	20	-
Copper(mg/L)	0.06	<0.03	<0.03	<0.02	1.5
Iron(mg/L)	0.15	0.25	0.13	0.18	50
Chlorides(mg/L)	34	20	18	12	600
Sulphate(mg/L)	37.76	12	62.1	2.94	400
Nitrate (mg/L)	-	-	<0.5	<0.5	50
Fluoride(mg/L)	0.54	0.36	0.59	0.18	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	0.05	<0.02	0.12	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

Table :229
Area: ORIENT

Project/OCP	Orient Mine No. 3				IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond Water at Burhijam Village				
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	6.95	7.32	7.67	6.97	6.5-8.5
Dissolved Oxygen(mg/L)	3.6	7.6	6.2	4.9	4
BOD (3 days 27oc)(mg/L)	2.2	2.8	3.9	3.3	3
Color (Hazen unit)	5.0	7.0	8.0	10.0	300
Total dissolved solids (mg/L)	156	182	206	174	1500
Total Suspended Solids(mg/L)	6	6.4	66	64	-
Total Hardness(mg/L)	76	48	68	60	-
Copper(mg/L)	0.07	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.07	0.07	0.11	<0.06	50
Chlorides(mg/L)	40	34	18	22	600
Sulphate(mg/L)	28.84	10.67	17.6	8.51	400
Nitrate (mg/L)	-	-	<0.5	<0.5	50
Fluoride(mg/L)	0.44	0.44	0.25	0.62	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	0.03	<0.02	0.04	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

Table :230
Area: ORIENT

Project/OCP	Orient Mine No. 4				IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	IB River Near Charbhati Village as u/s water for Ib Valley Coalfield				
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	6.80	6.95	7.24	6.78	6.5-8.5
Dissolved Oxygen(mg/L)	3.2	7.8	6.6	6.6	4
BOD (3 days 27oc)(mg/L)	2.2	3.2	3.4	2.9	3
Color (Hazen unit)	2.0	7.0	3.0	7.0	300
Total dissolved solids (mg/L)	98	126	266	116	1500
Total Suspended Solids(mg/L)	8	11.6	54	58	-
Total Hardness(mg/L)	40	44	96	24	-
Copper(mg/L)	0.07	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.3	0.09	0.1	0.13	50
Chlorides(mg/L)	14	18	16	10	600
Sulphate(mg/L)	23.96	13.97	64.2	2.94	400
Nitrate (mg/L)	-	-	<0.5	<0.5	50
Fluoride(mg/L)	0.61	0.42	0.36	0.22	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	0.04	0.02	0.04	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

Table :231
Area: ORIENT

Project/OCP	Orient Mine No. 4				IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Bagachoppa Jhor Gangapur Village as u/s for Rampur Colliery				
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	6.4	7.26	7.60	7.13	6.5-8.5
Dissolved Oxygen(mg/L)	4.4	6.0	6.7	5.6	4
BOD (3 days 27oc(mg/L)	2.3	1.8	4.8	4.1	3
Color (Hazen unit)	4	13	4	92	300
Total dissolved solids (mg/L)	644	358	296	640	1500
Total Suspended Solids(mg/L)	14	22.4	76	72	-
Total Hardness(mg/L)	372	140	104	264	-
Copper(mg/L)	0.05	<0.03	<0.03	<0.02	1.5
Iron(mg/L)	0.15	<0.06	0.1	<0.06	50
Chlorides(mg/L)	50	54	18	34	600
Sulphate(mg/L)	172.63	52.47	60.9	165.28	400
Nitrate (mg/L)	-	-	<0.5	<0.5	50
Fluoride(mg/L)	0.53	0.34	0.56	0.66	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	0.14	<0.02	0.03	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

Table :232
Area: ORIENT

Project/OCP	Orient Mine No. 4				IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Ib river near Kotarbaga village at bridge point				
Date of sampling	28-Jun-18	26-Sep-18	28-Dec-18	29-Mar-19	
pH	6.65	6.98	7.95	7.29	6.5-8.5
Dissolved Oxygen(mg/L)	3.2	4.9	6.8	6.2	4
BOD (3 days 27oc)(mg/L)	2.1	2.0	3.6	3.4	3
Color (Hazen unit)	2	10	56	10	300
Total dissolved solids (mg/L)	626	278	418	172	1500
Total Suspended Solids(mg/L)	16	5.6	58	56	-
Total Hardness(mg/L)	340	124	144	60	-
Copper(mg/L)	0.07	<0.03	<0.03	<0.02	1.5
Iron(mg/L)	0.15	<0.06	1.15	<0.06	50
Chlorides(mg/L)	44	38	74	24	600
Sulphate(mg/L)	162.8	59.84	41.1	8.2	400
Nitrate (mg/L)	-	-	11.96	<0.5	50
Fluoride(mg/L)	0.64	0.37	0.49	0.69	1.5
Cadmium (mg/L)	-	-	<0.0005	<0.0005	0.005
Selenium (mg/L)	-	-	-	<0.002	0.005
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.2
Lead (mg/L)	-	-	<0.005	<0.005	0.1
Zinc(mg/L)	0.12	<0.02	0.03	<0.02	15
Hexavalent Chromium(mg/L)	<0.01	<0.01	<0.01	<0.01	0.05
Oil & Grease	<4.0	<4.0	<4.0	<4.0	0.1

TABLES FOR SILTATION STUDY BY TSS MONITORING

Table: 233

Area: IB VALLEY (Peizometer water level)

Project /OCP	Date of Sampling	Name of the station	TSS (mg/L)
Lajkura	26-Jul-18	Mine sump	19
	27-Aug-18		35
	12-Sep-18		20
	26-Jul-2018	Surface pond	8
	27-Aug-2018		10
	12-Sep-2018		24

TABLES FOR PIEZOMETER WATER QUANTITY AND QUALITY DATA

Table :234

Area: IB Valley (Piezometer water level)

Project	Name of the Station	Date of Sampling	Ground Levels (in meter)(mbgl*)
Samaleswari OCP	Piezometer No MIP 04; Village Kutabaga; (Believer's church school)	08-Mar-19	8.92
Lajkura OCP	Piezometer No MIP 02; Village Gumadera; Village high school	08-Mar-19	26.45

mbgl*: Meters below ground level

Table :235
AREA: IB Valley (Peizometer water quality)

Project / OCP	Samleswari	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	MIP 04: Village kutabaga; (Believers church school)		
Dt. of sampling	08-Mar-19	Acceptable	Permissible
Colour(Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	1	5
pH	6.84	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	40	200	600
Total Hardness(mg/L)	28	200	600
Iron(mg/L)	<0.06	0.3	No relaxation
Chloride(mg/L)	12	250	1000
Total Dissolve Solid(mg/L)	86	500	2000
Calcium(mg/L)	4.8	75	200
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.1	0.3
Sulphate(mg/L)	0.46	200	400
Nitrate (mg/L)	<0.5	45	No relaxation
Fluoride(mg/L)	0.31	1	1.5
Arsenic(mg/L)	<0.002	0.01	0.05
Lead(mg/L)	<0.005	0.01	No relaxation
Zinc(mg/L)	<0.02	5	15
Total Chromium(mg/L)	<0.05	0.05	No relaxation
Boron(mg/L)	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	0.003	No relaxation

Table :236
AREA: Lakhanpur (Peizometer water level)

Project	Name of the Station	Date of Sampling	Ground Levels (in meter) (mbgl*)
Lakhanpur OCP	Piezometer No MIP 10; Village Dahaldera; Inside the premisses of UP school.	08-Mar-19	14.59
	Piezometer No MIP 09; Village Junion; Inside the premisses of State Govt.Horticulture Institute.	08-Mar-19	6.65
Belpahar OCP	Piezometer No MIP 08; Village Kusraloi, Inside the premises of Prathamik Vidyalaya	08-Mar-19	5.9
	Piezometer No MIP 07; Infront of DAV school Bandbahal, Inside colonysubstation.	06-Mar-19	6.76
Lilari OCP	Piezometer No MIP 06; Infront of Lilari mines Project office.	06-Mar-19	32.65

mbgl*: Meters below ground level

Table :237
AREA: LAKHANPUR (Peizometer water quality)

Project / OCP	Lilari			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	MIP 06: Infront of Lilari mines project office	MIP 09: Village Junion; Inside the premisses of State Govt. Horticulture Institute.	MIP 10: Village Dahaldera; Inside the premisses of UP school.	Acceptable
Dt. of sampling	06-Mar-19	08-Mar-19	08-Mar-19	Acceptable	Permissible
Colour(Hazen)	10	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	5	3	3	1	5
pH	6.78	6.34	6.65	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	108	64	120	200	600
Total Hardness(mg/L)	116	80	112	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	16	22	12	250	1000
Total Dissolve Solid(mg/L)	250	174	248	500	2000
Calcium(mg/L)	24	17.6	27.2	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.02	0.05	<0.02	0.1	0.3
Sulphate(mg/L)	8.2	5.26	3.25	200	400
Nitrate (mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.21	0.26	0.21	1	1.5
Arsenic(mg/L)	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	0.005	<0.005	0.01	No relaxation
Zinc(mg/L)	<0.02	<0.02	<0.02	5	15
Total Chromium(mg/L)	<0.05	<0.05	<0.05	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :238
AREA: BASUNDHARA (Piezometer water level)

Project	Name of the Station	Date of Sampling	Ground Levels (in meter)(mbgl*)
Basundhara (W) OCP	Piezometer No MIP 17; Village Gopalpur; CMPDI Exploration camp.	07-Mar-19	9.35
	Piezometer No MIP 16; Village Kulhparha (new basti) on the road from Sardega to Gopalpur.	07-Mar-19	17.0
	Piezometer No MIP 15; Back side of Sardega Primary school.	07-Mar-19	6.98
Kulda OCP	Piezometer No MIP 11; Village Karlikachar; Infront of Primary school.	07-Mar-19	10.11
	Piezometer No MIP 12; Village Balinga; MCL office.	07-Mar-19	1.56
	Piezometer No MIP 14; Village Kulda; Primary school campus.	07-Mar-19	52.82
	Piezometer No MIP 01; Village Garjanbahal (village school campus)	07-Mar-19	12.98

mbgl*: Meters below ground level

Table :239
AREA: BASUNDHARA (Peizometer water quality)

Project / OCP	Kulda				Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	MIP 01: Village Garjanbahal (village school campus)	MIP 11: Village Karlikachar; Infront of Primary school.	MIP 12: Village Balinga; MCL office.		
Dt. of sampling	07-Mar-19	07-Mar-19	07-Mar-19	07-Mar-19	Acceptable	Permissible
Colour(Hazen)	5	2	2	8	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	5	5	1	5
pH	7.34	6.99	7.08	7.25	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	76	88	116	200	600
Total Hardness(mg/L)	132	76	160	152	200	600
Iron(mg/L)	<0.06	<0.06	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	66	14	42	44	250	1000
Total Dissolve Solid(mg/L)	328	170	370	376	500	2000
Calcium(mg/L)	27.2	19.2	36.8	36.8	75	200
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.27	0.03	0.25	0.17	0.1	0.3
Sulphate(mg/L)	29.71	2.32	79.39	62.68	200	400
Nitrate (mg/L)	<0.5	<0.5	1.34	<0.5	45	No relaxation
Fluoride(mg/L)	0.25	0.78	0.15	0.19	1	1.5
Arsenic(mg/L)	<0.002	<0.002	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01	No relaxation
Zinc(mg/L)	<0.02	0.35	<0.02	<0.02	5	15
Total Chromium(mg/L)	<0.05	<0.05	<0.05	<0.05	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	<0.0005	<0.0005	<0.0005	0.003	No relaxation

Table :240
AREA: BASUNDHARA (Peizometer water quality)

Project / OCP	Basundhara				Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	MIP 15 : Back side of Sardega Primary school.	MIP 16: Village Kulhaparha (new basti) on the road from Sardega to Gopalpur.	MIP 17: Village Gopalpur; CMPDI Exploration camp.		
Dt. of sampling	07-Mar-19	07-Mar-19	07-Mar-19	07-Mar-19	Acceptable	Permissible
Colour (Hazen)	9	6	5	Borehole Jammed	5	15
Odour	Agreeable	Agreeable	Agreeable	-do-	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	-do-	Agreeable	Agreeable
Turbidity (NTU)	1	1	1	-do-	1	5
pH	7.53	6.82	7.11	-do-	6.5-8.5	No relaxation
Total Alkalinity (mg/L)	136	100	152	-do-	200	600
Total Hardness (mg/L)	92	108	188	-do-	200	600
Iron (mg/L)	<0.06	<0.06	<0.06	-do-	0.3	No relaxation
Chloride (mg/L)	38	12	42	-do-	250	1000
Total Dissolve Solid (mg/L)	302	242	390	-do-	500	2000
Calcium (mg/L)	24.0	25.6	38.4	-do-	75	200
Copper (mg/L)	<0.03	<0.03	<0.03	-do-	0.05	1.5
Manganese (mg/L)	<0.02	1.04	0.2	-do-	0.1	0.3
Sulphate (mg/L)	4.02	20.43	7.58	-do-	200	400
Nitrate (mg/L)	<0.5	<0.5	<0.5	-do-	45	No relaxation
Fluoride (mg/L)	0.35	0.61	0.53	-do-	1	1.5
Arsenic (mg/L)	<0.002	<0.002	<0.002	-do-	0.01	0.05
Lead (mg/L)	<0.005	<0.005	<0.005	-do-	0.01	No relaxation
Zinc (mg/L)	<0.02	<0.02	<0.02	-do-	5	15
Total Chromium (mg/L)	<0.05	<0.05	<0.05	-do-	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	-do-	0.5	1.0
Cadmium (mg/L)	<0.0005	<0.0005	<0.0005	-do-	0.003	No relaxation

Table :241
AREA:ORIENT (Peizometer water level)

Project	Name of the Station	Date of Sampling	Ground Levels (in meter)(mbgl*)
Orient	Piezometer No MIP 03; Beside Ib valley GM house.	08-Mar-19	7.29
	Piezometer No MIP 05; Village Chauliberna; Inside narsing high school campus	08-Mar-19	33

mbgl*: Meters below ground level

Table :242
AREA: ORIENT (Peizometer water quality)

Project / OCP	Orient		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			
	MIP 03: Beside Ib valley GM house.	MIP 05: Village Chauliberna; Inside Narsing hHigh school campus		
Dt. of sampling	08-03-2019	08-03-2019	Acceptable	Permissible
Colour(Hazen)	5	7	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	1	5
pH	7.57	7.30	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	196	36	200	600
Total Hardness(mg/L)	184	52	200	600
Iron(mg/L)	<0.06	<0.06	0.3	No relaxation
Chloride(mg/L)	20	22	250	1000
Total Dissolve Solid(mg/L)	418	116	500	2000
Calcium(mg/L)	51.2	12.8	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)	18.42	2.01	200	400
Nitrate (mg/L)	<0.5	<0.5	45	No relaxation
Fluoride(mg/L)	0.12	0.19	1	1.5
Arsenic(mg/L)	<0.002	<0.002	0.01	0.05
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Zinc(mg/L)	0.24	<0.02	5	15
Total Chromium(mg/L)	<0.05	<0.05	0.05	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	1.0
Cadmium(mg/L)	<0.0005	<0.0005	0.003	No relaxation