



A Subsidiary of Coal India Limited

**ANNUAL ROUTINE
ENVIRONMENTAL
MONITORING REPORT
2020-2021**

IB VALLEY COALFIELD

**CENTRAL MINE PLANNING & DESIGN INSTITUTE LTD, RI VII,
BHUBANESWAR**

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REPORT TITLE	COMPANY NAME	Mahanadi Coalfields Limited, Jagruti Vihar, Burla, Sambalpur – 768020
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1. TALCHER COALFIELD

INTRODUCTION

IB-Valley coalfield is an important coalfields of the country which is a part of Mahanadi Coalfields Limited (MCL), fully owned subsidiary of Coal India Limited a *Maharatna* company.

The coalfield lies in the western part Odisha, located between latitudes 21°31' & 22°14'N and longitudes 83°32' & 84°10'E within the districts of Sundergarh, Jharsuguda and Sambalpur. Ib-valley coalfield covers an area of about 1460 Sq. Kms. & is named after the river Ib, a tributary of river Mahanadi, which passes through the eastern fringe of the coalfield. Coal reserves in Ib Valley coalfields as per UNFC as on 01-04-2011 is 2546.96 MT.

MCL realized 148.01 Metric tonne (MT) of coal production in the year 2020-2021 of which Ib Valley coalfield contributed MT coal production. Coal uptake of 145.99 MT was realized by MCL in the year 2020-2021.

Ib valley coalfield which comprises south-eastern most part of NW-SE trending Son-Mahanadi valley of Gondwana basin forms a half elliptical basin with a linear NW-SE trend. The trend of this synclinal Gondwana basin bears close parallelism to the structural configuration of the basement pre-cambrian rocks. The coalfield is connected with Talcher coalfield by a thin narrow strip of Talcher formation. 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. Based on exploration carried out in the coalfield, five coal horizons viz. Ib,

Rampur, Lajkura, Parkhani and Belpahar have been identified in ascending order. Most of the coal seams are split into 2 to 7 sections.

Table 1

Coal Reserves in Ib-valley coalfield as on 1.4.2019

(Reserves in million tonnes)

Depth (in meter)	Proved reserves	Indicated reserves	Inferred reserves	Total reserves
0-300	12287.21	5055.30	-	17342.51
300-600	2908.54	4522.11	3610.53	11041.18
600-1200	0.97	1235.01	-	1235.98
Total	15196.72	10812.42	3610.53	29619.67

Source CMPDI website, as on 01.04.2019

TOPOGRAPHY

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

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.

Annual mean rainfall per annum is 1477.6 mm. Maximum rainfall during August is around 422 mm and minimum is around 229 mm in June as Observed Rainfall Variability and Changes Over Odisha State Report 2020, IMD

MINING AREA

List of approved projects with sanctioned Environmental Clearance of Ib Coalfield is as follows:

Table 2

SNo.	Name of Project	Approved EC (MTY) and Date
1	Lajkura OCP	4.5 (30-01-15)
2	Samaleswari OCP	15.00 (26-12-19)
3	Belpahar OCP	9.00 Extn. (15-01-21)
4	Lakhanpur OCP	21.00 (10-01-20)

5	Lilari OCP	0.8 (30-06-90)
6	Basundhara (W) OCP	8.0 (25-02-13)
7	Kulda OCP	16.8 (02-03-21)
8	Garjanbahal OCP	13.00 (9-11-17)
9	Siarmal OCP	Under process
10	Orient mine 1 & 2	0.87 (26-02-13)
11	Orient mine no. 3	0.69 (12-03-13)
12	Orient mine no. 4	0.5 (25-02-13)
13	Hirakhand Bundia Incli.	0.95 (26-02-13)
14	Basundhara (W) Extn. OCP	Under process

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 on Mumbai-Howrah Railway line, about 30 to 35 km connected by black top road. Jharsuguda railway station on Jharsuguda-sambalpur-Bhubaneswar rail line of East coast railway is at a distance of about 75 km from this Gopalpur tract. The Jharsuguda airport is the nearest airport from the coalfield.

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

2. PERFORMANCE SUMMARY

Routine Environment Monitoring (REM) work of Mahanadi Coalfields Limited (MCL) mines in Talcher and IB Valley coalfield is undertaken by CMPDI RI-VII

Bhubaneswar. MCL is having an incremental coal production every year. The increase in coal production simultaneously increases the pollution load. Because of which Ministry of Environment, Forest & Climate Change (MoEF&CC) has directed MCL to undertake the Routine Environmental Monitoring in core zone & buffer zone. In order to comply with the condition of MoEF&CC, MCL has increased the periodic monitoring. Reference monitoring station (NAAQS complied) located in the buffer zone are also included to monitor & study the impact of mining on residential area in and around mines.

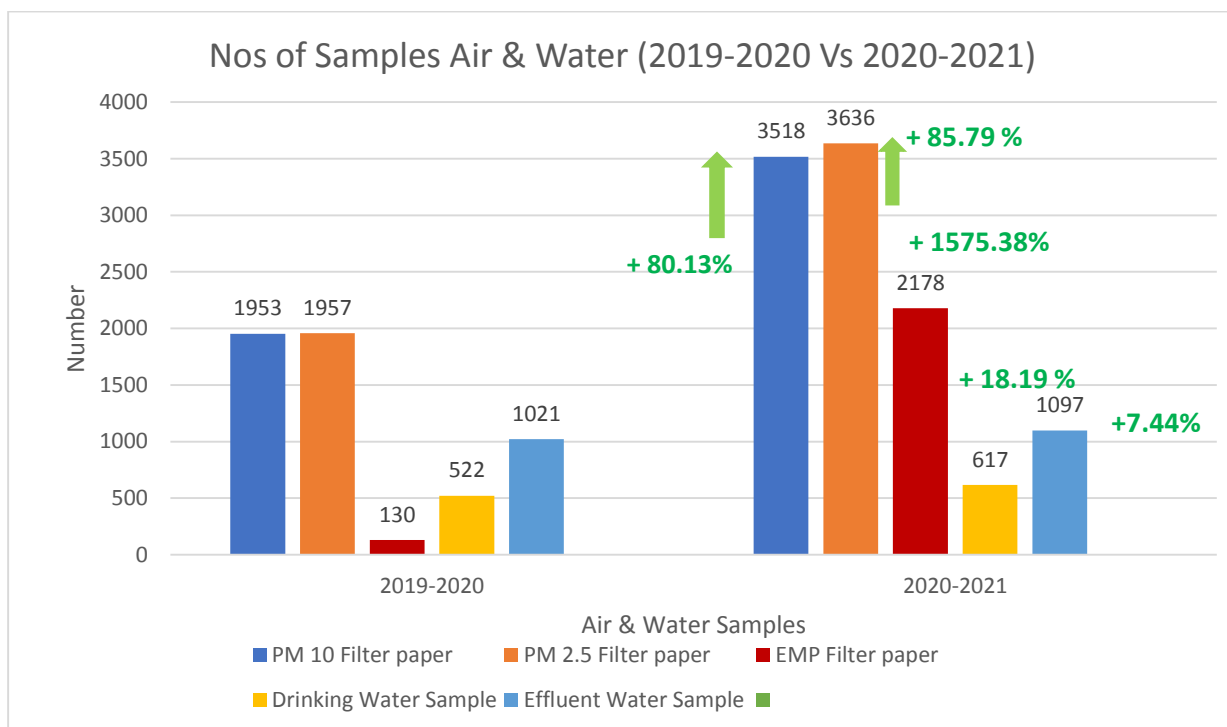
In the financial year 2020-2021, the REM work increased two folds. As opposed to last

year, where CMPDI had analysed around 6200 samples for different parameters this financial year as per work order, the samples analysed were around 11120.

With almost 80 % growth rate we at REC Lab, CMPDI, RI VII plan to expand our capital and maximise our in-house testing. by starting analysis of Benzene-Benzo Pyrene in water samples using Gas Chromatography (GC). It is likely to be the first Regional Institute operating GC for the analysis. A Microbiological testing lab is being made functional for testing presence of harmful coliforms in water.

Capital purchases of a second Atomic Absorption Spectrophotometer (AAS) along with a Chiller & Microwave Digester are proposed to deal with additional work.

Fig showing Nos of Samples Air & Water (2019-2020 Vs 2020-2021)



Source: Report on Justification for Hiring 2 no. Bolero Camper for REM Work 2020-21

LIST OF MONITORING STATIONS AS PER WORK ORDER

Table 3

List of Air Quality Monitoring Stations & frequency of monitoring

Sl. No.	Area	Project (OCP/UG)	Name of Air Monitoring Station	Type of Station
1	Ib Valley	Samleswari	West of the Mine	Compliance Station
2			South of the Mine	Compliance Station
3			RCP Camp	Compliance Station
4			Rampur Sub Area	Reference Station
5		Lajkura	Near Project Office	Compliance Station
6			Near South Coal Stock	Compliance Station
7			VIP Guest House, IB Valley	Compliance Station
8			Khokelmal	Reference Station
9	Lakhanpur	Lilari	Near Lilari Magazine House	Compliance Station
10		Lakhanpur	Near Lilari Nallah Pump House	Compliance Station
11			West of Quarry 3	Compliance Station
12			Near Quarry 3	Compliance Station
13			South West of Quarry 6	Reference Station
14		Belpahar	Near Magazine House	Compliance Station
15			South of the Mine	Compliance Station
16			East of the Mine	Compliance Station
17			Near Central Workshop	Reference Station
18	Mahalaxmi		Basundhara (W)	North of the Sardega Railway Siding
19		Sarangjhararia Community Centre		Compliance Station
20		Near Coal Stock of Basundhara (W) OCP		Compliance Station
21		CHP, CT Road		Compliance Station
22		Near Internal Dump and CT Road of Basundhara/Gopalpur		Reference Station
23	Basundhara	Kulda	External CT Road	Compliance Station
24			North of CHP	Compliance Station
25			South of Working Face	Compliance Station
26			West of Working Face	Reference Station
27		Garjanbahal OCP	220 kV Substation	Compliance Station
28			North West of Coalface (Camp Office)	Compliance Station
29			Near Coal Sampling Lab	Compliance Station
30			Kushra Village	Reference Station
31			Siarmal Village	Reference Station
32			Orient	Orient Mine No. 1 & 2
33	VIP Guest House, IB Valley	Reference Station		
34	Orient Mine No. 3	Orient Mine No. 3		Compliance Station
35	HBI Mine	HBI Mine		Compliance Station
36		Bundia Colony Pump House		Compliance Station
37		Rampur Officers Guest House		Compliance Station
38		Rampur Sub Area (Reported only)		
39	Orient Mine No. 4	Orient Mine No. 4	Compliance Station	

Table 4**List of Noise Level Monitoring Stations**

Sl. No.	Area	Project (OCP/UG)	Name of the station
1	Ib valley	Samaleswari	West of the Mine
2			South of the Mine
3			RCP Camp
4			Rampur Sub Area
5		Lajkura	Near Project Office
6			Near South Coal Stock
7			VIP Guest House, IB Valley
8			Khokelmal
9	Lakhampur	Lilari	Near Lilari Magazine House
10		Lakhampur	Near Lilari Nallah Pump House
11			West of Quarry 3
12			Near Quarry 3
13			South West of Quarry 6
14		Belpahar	Near Magazine House
15			South of the Mine
16			East of the Mine
17			Near Central Workshop
18	Mahalaxmi		Basundhara(W)
19		Near Internal Dump and CT road of Basundhara (W) OCP/Gopalpur	
20		CHP, CT Road	
21		North of the Sardega Siding	
22	Basundhara	Kulda	External CT Road
23			North of CHP
24		Garjanbahal OCP	220 kV Substation
25			North West of Coalface (Camp Office)
26	Orient	Orient Mine No. 1 & 2	Orient Mine No. 2
27			Near Adarsh nagar colony
28		Orient Mine No. 3	Orient Mine No. 3
29		HBI Mine	HBI Mine
30			Bundia Colony Pump House
31			Rampur Officers Guest House
32		Orient Mine No. 4	Orient Mine No. 4

Table 5

List of Effluent (22 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project (OCP/UG)	NAME OF STATIONS
1	IB-valley	Samaleswari	Outlet from Sedimentation Pond
2		Lajkura	Outlet of MDTP
3	Lakhanpur	Lakhanpur	Mine Sump Water
4		Belpahar	Mine Sump Water
5	Basundhara (W)	Basundhara (E) OCP's Sump	
6	Basundhara	Kulda	Final Outlet of ETP
7			Mine Sump Water near Kulda Nursery
8		Garjhanbahal	Outlet of Settling tank (Kanika Siding)
9			Mine Sump Water
10	Orient	Orient Mine No. 1 & 2	Mine Sump of Mine No. 2
11		Orient Mine No. -3	Mine Sump of Mine No. 3
12		HBI Mine	Mine Sump of HBM
13		Orient Mine No. 4	Mine Sump of Mine No. 4



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Table 6

List of Effluent (4 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project (OCP/UG)	NAME OF STATIONS
1	IB-valley	Samaleswari	Inlet of Sedimentation Pond
2			Outlet of Sedimentation Pond
3			O&G Trap Inlet
4			O&G Trap Outlet
5		Lajkura	Inlet of Oil & Grease Trap
6			Outlet of Oil & Grease Trap
7			Inlet of MDTP
8			Outlet of MDTP
9	Lakhanpur	Lilari	Mine Sump Water
10		Lakhanpur	Inlet of Secondary Sedimentation Tank
11			Outlet of Secondary Sedimentation Tank
12			O & G Trap Inlet
13			O & G Trap Outlet
14		Mine Sump Water	
15		Belpahar	Inlet of ETP
16			Outlet of ETP
17			ECO Tank
18			Mine Sump Water
19	Mahalaxmi	Basundhara (W)	Inlet of Settling Pond at Excavation Workshop, B(W) OCP
20			Outlet of Settling Pond at Excavation Workshop, B(W) OCP
21			Basundhara (E) OCP's Sump
22	Basundhara	Kulda	Inlet of ETP
23			Final Outlet of ETP
24			Mine Sump Water near Kulda Nursery
25		Garjanbahal	Inlet of Settling Tank (Kanika Siding)
26			Outlet of Settling Tank (Kanika Siding)
27			Mine Sump Water
28			Orient
29	Orient Mine No. 3	Mine Sump of Mine No. 3	
30	HBI Mine	Mine Sump of HBM	
31	Orient Mine No. 4	Mine Sump of Mine No. 4	

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Table 7
List of Effluent (3 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project (OCP/UG)	NAME OF STATIONS
1	IB-Valley	Samaleswari	STP Inlet
2			STP Outlet
3		Lajkura	STP Inlet
4			STP Outlet
5	Lakhanpur	Belpahar	Inlet of Sewage Treatment Plant
6			Clear Water Tank of Sewage Treatment Plant

Table 8
List of Effluent (1 Parameter) Quality Monitoring Stations

Sl. No.	Area	Project (OCP/UG)	NAME OF STATIONS
1	IB-valley	Samaleswari	Mine Sump Water
2		Lajkura	Mine sump water

Table 9
List of Drinking Water Quality Monitoring Stations

SL. NO.	Area	OCP/UG/HQ	NAME OF THE STATION	
1	IB Valley	Samleswari	Well Water from Kudopali	
2			Tap Water from Samleswari OCP Colony	
3			Water from IWSS, IB Valley Area	
4			Well Water from Lajkura	
5		Lajkura	Madhuban Nagar Well Water	
6			Adarsh Nagar Colony Well Water	
7			Chhualibera Village Well Water	
8			VIP Guest House Tap Water	
9		Central Hospital	Tap Discharge Water of Central Hospital	
10	Lakhanpur	Lilari	Jurabaga Village Well Water	
11		Lakhanpur	LKP Canteen Tap Water	
12		Belpahar	IWSS Outlet	
13	Mahalaxmi	Basundhara (W)	Basundhra Colony Tap Water	
14	Basundhara	Garjhanbahal	Basundhra Colony Tap Water (Reported only)	
15			Tubewell at Karlikachar	
16	Orient	Orient Mine No. 1 & 2	Tap Water at Budhijaam Colony	
17			Mine No. 1 & 2 Filter Plant	
18		Orient Mine No. 3	Mine No. 3 Filter Plant	
19			HBI Mine	Tap Water at Rampur Colony
20				HBI Water Filter Plant
21	MCL(HQ)	MCL(HQ)	Tap Water at DAV School (Anand Vihar)	
22			Tap Water at Cooperate Office (Jagruthi Vihar)	
23			Inlet to Water Treatment Plant (Anand Vihar)	
24			Outlet of Water Treatment Plant (Anand Vihar)	

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Table 10
List of Well Water Level Stations

Sl. NO	Area	Project (OCP/UG)	Name of station
1	Ib valley	Samleswari	Well of Kudopali
2			Well of Lajkura
3		Lajkura	Madhuban Nagar Well Water
4			Adarsh Nagar Colony Well Water
5			Chhualibera Village Well Water
6	Lakhanpur	Lakhanpur	Ubuda Village Well
7			Khairkuni Village Well
8			Darlipali Village Well Water
9		Belpahar	Chharla Village Well
10	Mahalaxmi	Basundhara (W)	Sardega Village Well
11			Tiklipara Village Well
12	Basundhara	Kulda	Well at Sahaspur
13			Well at Teleimal
14		Garjhanbahal	Well at Karlikachar Village
15	Orient	Orient Mine No. 1 & 2	Madhuban Nagar Village Well (Repeated)
16			Chhualibera Village Well Water (Repeated)
17		Orient Mine no. 3	Lajkura Village Well (Repeated)
18		HBI	Well of Chingriguda
19			Well of Kudopali (Repeated)
20			Well of Ainlapali
21		Orient Mine No. 4	Adibasi Basti Village Well
22	Jhopadi Basti Village Well		

Table 11
List of Surface Water Monitoring Stations

SL. NO.	Area	Project (OCP/UG)	Name of the Station
1	IB Valley	Samaleswari	Pandren Nallah near Muchbahal
2			Pandren Nallah Before Confluence Point with Lilari Nallah
3		Lajkura	U/S of Baghmara Nala at Discharge Point
4			U/S of Baghmara Nala at Discharge Point
5	Lakhanpur	Lakhanpur	Pulijhor Stream Near Tingismal Village as u/s for Lakhanpur OCP
6			Pulijhor stream Near Darlipalil Village before Confluence to Lilari Nallah as d/s Water of Lakhanpur OCP
7			Lilari Nallah Near Kudaloi Village as u/s of Lakhanpur OCP
8			Lilari Nallah Near Project Office Lilari Bridge Village as d/s of Lakhanpur OCP
9	Orient	Orient Mine No. 1 & 2	Bhedan River Before Confluence Point with IB River
10		Orient Mine No. 3	Pond Water at Budhijam Village
11		HBI	IB River near Kotarbaga Village at Bridge Point
12		Orient Mine No. 4	IB River Near Charbhati Village as u/s Water for IB Valley Coalfield
13			Basundhara River Near Degan Village Before Confluence as u/s of Orient Area
14			IB River Bridge of NH200 at Gondghora Village as u/s of Orient Area
15			Bagachoppa Jhor Gangapur Village as u/s for Rampur Colliery

Table 12
List of Piezometer Monitoring Stations

Sl. No.	Area	Project (OCP/UG)	Name of station
1	Ib valley	Samleswari	Piezometer No. MIP 04, GW level and quality (May)
2			Piezometer No. MIP 04, GW level (Aug, Nov, Jan)
3		Lajkura	Piezometer No. MIP 02, GW level and quality (May)
4			Piezometer No. MIP 02, GW level (Aug, Nov, Jan)
5	Lakhanpur	Lilari	Piezometer No. MIP 06, GW level and quality (May)
6			Piezometer No. MIP 06, GW level (Aug, Nov, Jan)
7		Lakhanpur	Piezometer No. MIP 09, GW level and quality (May)
8			Piezometer No. MIP 09, GW level (Aug, Nov, Jan)
9			Piezometer No. MIP 10, GW level and quality (May)
10			Piezometer No. MIP 10, GW level (Aug,Nov,Jan)
11		Belpahar	Piezometer No. MIP 07, GW level and quality (May)
12			Piezometer No. MIP 07, GW level (Aug, Nov, Jan)
13			Piezometer No. MIP 08, GW level and quality (May)
14			Piezometer No. MIP 08, GW level (Aug, Nov, Jan)
15	Mahalaxmi	Basundhara (W)	Piezometer No. MIP 15, GW level and quality (May)
16			Piezometer No. MIP 15, GW level (Aug, Nov, Jan)
17			Piezometer No. MIP 16, GW level and quality (May)
18			Piezometer No. MIP 16, GW level (Aug, Nov, Jan)
19			Piezometer No. MIP 13, GW level and quality (May)
20			Piezometer No. MIP 13, GW level (Aug, Nov, Jan)
21			Piezometer No. MIP 17, GW level and quality (May)
22			Piezometer No MIP 17, GW level (Aug, Nov, Jan)
23	Basundhara	Kulda	Piezometer No. MIP 12, GW level and quality (May)
24			Piezometer No. MIP 12, GW level (Aug, Nov, Jan)
25			Piezometer No. MIP 14, GW level and quality (May)
26			Piezometer No. MIP 14, GW level (Aug, Nov, Jan)
27			Piezometer No. MIP 01, GW level and quality (May)
28			Piezometer No. MIP 01, GW level (Aug, Nov, Jan)
29			Piezometer No. MIP 11, GW level and quality (May)
30			Piezometer No. MIP 11, GW level (Aug, Nov, Jan)
31	Orient	Orient Mine No. 1 & 2	Piezometer No. MIP 03, GW level and quality (May)
32			Piezometer No. MIP 03, GW level (Aug, Nov, Jan)
33		Orient Mine No. 3	Piezometer No. MIP 05, GW level and quality (May)
34			Piezometer No. MIP 05, GW level (Aug, Nov, Jan)
35		HBI	Piezometer No. MIP 05, GW level and quality (May)
36			Piezometer No. MIP 05, GW level (Aug, Nov, Jan) (Reported only)

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Table 13
List of TSS Monitoring Stations

SL.NO.	Area	Project (OCP/UG)	Name of the station
1	IB-Valley	Lajkura	Mine Sump
2			Surface Pond
3	Mahalaxmi	Basundhara (W)	100 m upstream of the point in Basundhara nalla near Sardega Village
4			100 m downstream of the point in Basundhara nalla near Sardega Village
5	Basundhara	Kulda	Basundhara River near Bankibahal bridge as u/s water
6			Basundhara River near Barpali Village as d/s water



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FREQUENCY OF MONITORING

Table 14: Frequency of Monitoring

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



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METHODOLOGY AND INSTRUMENTS USED

Table 15: Methodology used for Analysis

S.No	Materials or Products tested	Parameter	Test Method Specification
1	Ambient Air	NO ₂	IS 5182 (Part 6): 2012
2	Ambient Air	PM 10	IS 5182 (Part 23): 2012
3	Ambient Air	PM 2.5	Quality Assurance Guidance Document 2.12 Monitoring PM _{2.5} in Ambient Air Using Designated Reference or Class I Equivalent Methods: 2016
4	Ambient Air	SO ₂	IS 5182 (Part 2): 2012
5	Drinking Water	Arsenic	APHA 3114C: 2017
6	Drinking Water	Boron	IS 3025 (part 57): 2005
7	Drinking Water	Boron	APHA 4500-B B.C: 2017
8	Drinking Water	Cadmium	APHA 3113 B: 2017
9	Drinking Water	Copper	APHA 3111 A,B: 2017
10	Drinking Water	Copper	IS 3025 (Part 42): 2014
11	Drinking Water	Iron	APHA 3111 A,B: 2017
12	Drinking Water	Iron	IS 3025 (Part 53):
13	Drinking Water	Lead	APHA 3113 B : 2017
14	Drinking Water	Manganese	APHA 3111 A,B: 2017
15	Drinking Water	Total Chromium	IS 3025 (Part 52): 2014
16	Drinking water	Total Chromium	APHA 3113 B: 2017
17	Drinking water	Zinc	IS 3025 (Part 49): 2014
18	Drinking water	Alkalinity (as CaCO ₃)	IS 3025 (Part 23): 2014
19	Drinking Water	Calcium	IS 3025 (Part 40): 2014
20	Drinking Water	Chlorides	IS 3025 (Part 32): 2014
21	Drinking Water	Color	APHA 2120 C: 2017
22	Drinking Water	Flouride	APHA 4500-F-D: 2017
23	Drinking Water	Nitrate	APHA 4500 NO ₃ B: 2017
24	Drinking Water	pH	APHA 4500 H-B: 2017
25	Drinking Water	pH value	IS 3025 (Part 11) :
26	Drinking Water	Sulphate	APHA 4500 SO ₄ E: 2017
27	Drinking Water	Total Dissolved Solids	IS 3025 (Part -16):
28	Drinking Water	Total Hardness (CaCO ₃)	IS 3025 (Part 21): 2014
29	Drinking Water	Turbidity	IS 3025 (Part -10):
30	Surface water	Arsenic	APHA 3114 C: 2017
31	Surface water	Cadmium	APHA 3113 B: 2017
32	Surface Water	Copper	IS 3025 (Part 42): 2014
33	Surface water	Copper	APHA 3111 A,B: 2017
34	Surface water	Iron	APHA 3111 A,B: 2017
35	Surface water	Iron	IS 3025 (Part 53):
36	Surface water	Lead	APHA 3113 B: 2017
37	Surface water	Zinc	IS 3025 (Part 49): 2014
38	Surface Water	Chloride	IS 3025 (Part 32): 2014
39	Surface Water	Color	APHA 2120 C: 2017
40	Surface Water	Flouride	APHA 4500 F-D: 2017
41	Surface Water	Nitrate	APHA 4500 NO ₃ B: 2017
42	Surface Water	pH	APHA 4500-H+B: 2017
43	Surface Water	pH	S 3025 (Part 11): 2012
44	Surface Water	Sulphate	APHA 4500 SO ₄ E: 2017
45	Surface Water	Total Dissolved Solids	IS 3025 (Part -16):
46	Surface Water	Total Hardness (CaCO ₃)	IS 3025 (Part 21): 2014
47	Waste Water (Effluent / Sewage)	Ammonical Nitrogen as N	APHA 4500 NH ₃ B,F: 2017

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S.No	Materials or Products tested	Parameter	Test Method Specification
48	Waste Water (Effluent / Sewage)	Arsenic	APHA 3114 C : 2017
49	Waste Water (Effluent / Sewage)	Biological Oxygen Demand (BOD 3 days)	IS 3025 (Part 44): 2014
50	Waste Water (Effluent / Sewage)	Cadmium	APHA 3113 B : 2017
51	Waste Water (Effluent / Sewage)	Chemical Oxygen demand (COD)	APHA 5220 B, C : 2017
52	Waste Water (Effluent / Sewage)	Colour	APHA 2120 C : 2017
53	Waste Water (Effluent / Sewage)	Copper	IS 3025 (Part 42): 2014
54	Waste Water (Effluent / Sewage)	Copper	APHA 3111, A, B : 2017
55	Waste Water (Effluent / Sewage)	Dissolved Phosphate as P	APHA 4500-P C : 2017
56	Waste Water (Effluent / Sewage)	Fluoride	APHA 4500-F- D: 2017
57	Waste Water (Effluent / Sewage)	Hexavalent Chromium	APHA 3500-B: 2017
58	Waste Water (Effluent / Sewage)	Iron	IS 3025 (Part 53): 2014
59	Waste Water (Effluent / Sewage)	Iron	APHA 3111 A, B : 2017
60	Waste Water (Effluent / Sewage)	Lead	APHA, 3113 A, B: 2017
61	Waste Water (Effluent / Sewage)	Manganese	APHA 3111 A, B: 2017
62	Waste Water (Effluent / Sewage)	Nickel	IS 3025 (Part 54): 2014
63	Waste Water (Effluent / Sewage)	Nickel	APHA 3113 A, B : 2017
64	Waste Water (Effluent / Sewage)	Nitrate Nitrogen	APHA 4500 NO3 B: 2017
65	Waste Water (Effluent / Sewage)	Oil & Grease	IS 3025 (Part 39): 2014
66	Waste Water (Effluent / Sewage)	pH value	IS 3025 (Part 11 :1983): 2012
67	Waste Water (Effluent / Sewage)	pH value	APHA 4500 - H+ A, B : 2017
68	Waste Water (Effluent / Sewage)	Sulphide	APHA, 4500 - S 2- D, : 2017
69	Waste Water (Effluent / Sewage)	Total Chromium	IS 3025 (Part 52:2003): 2014
70	Waste Water (Effluent / Sewage)	Total Kjeldahl Nitrogen	APHA 4500 N org B : 2017
71	Waste Water (Effluent / Sewage)	Total Suspended Solids	IS 3025 (Part 17-1984):
72	Waste Water (Effluent / Sewage)	Zinc	IS 3025 (Part 49): 2014
73	Waste Water (Effluent/Sewage)	Ammonical Nitrogen as N	IS 3025 (Part 34): 2014
74	Waste Water (Effluents/ Sewage)	Temperature	IS 3025 (Part-9): 2012

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Figure 1 Ground Mounted Solar panels in MCL



Figure 2 Ananta Medicinal Garden

Ananta medicinal garden has been developed by Mahanadi Coalfields Limited on the backfilled area of Ananta Open Cast Project

Source: EGS Report 2019-2020, CIL

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AIR QUALITY DATA

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3 ENVIRONMENTAL PARAMETER ANALYSIS

3.1 TABLES FOR AIR QUALITY DATA

Table:16

Area: Ib valley Area

Project: Samleswari OCP

Monitoring Station: RCP Camp

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
09-May-20	266	207	28	14.04	18.64
06-Jun-20	299	268	33	11.01	22.26
22-Jun-20	72	50	38	15.36	15.65
06-Jul-20	90	55	20	7.48	14.34
21-Jul-20	77	55	21	12.27	15.29
07-Aug-20	90	52	23	12.51	18.37
24-Aug-20	121	74	22	13.79	21.27
10-Sep-20	129	78	25	12.06	20.09
24-Sep-20	103	64	22	11.82	16.47
24-Sep-20	103	64	22	11.82	16.47
10-Oct-20	94	63	18	10.35	13.88
23-Oct-20	102	65	24	13.39	21.59
07-Nov-20	336	217	72	10.51	21.85
21-Nov-20	268	178	58	10.28	23.03
05-Dec-20	269	174	54	9.43	25.47
18-Dec-20	233	147	46	15.54	20.03
04-Jan-21	238	127	49	14.51	34.75
16-Jan-21	262	144	51	20.32	28.09
01-Feb-21	327	153	58	20.34	40.13
13-Feb-21	237	109	54	18.1	42.77
01-Mar-21	222	93	41	16.03	25.36
15-Mar-21	234	133	46	16.98	27.59
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	336	268	72	20.34	42.77
Minimum	72	50	18	7.48	13.88
Average	189.64	116.82	37.50	13.54	22.88
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table: 17

Area: Ib valley Area

Project: Samleswari OCP

Monitoring Station: South of the Mine

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
14-May-20	138	102	22	10.53	16.03
04-Jun-20	253	180	26	11.9	18.56
19-Jun-20	257	185	18	11.23	12.01
04-Jul-20					
20-Jul-20	80	58	18	12.62	18.02
06-Aug-20	110	60	20	9.92	17.22
20-Aug-20	228	165	48	11.42	20.76
05-Sep-20	134	84	33	8.4	25.18
18-Sep-20	110	73	24	10.79	22.98
18-Sep-20	110	73	24	10.79	22.98
01-Oct-20	108	83	28	10.05	15.66
16-Oct-20	174	126	34	7.37	24.39
02-Nov-20	247	169	68	12.89	19.05
16-Nov-20	258	162	66	12.12	18.33
30-Nov-20	339	216	69	13.59	23.35
12-Dec-20	269	174	58	19.85	31.16
28-Dec-20	368	243	66	35.66	15.32
11-Jan-21	270	182	56	18.49	32.29
25-Jan-21	469	229	79	22.01	37.77
15-Feb-21	308	162	68	21.25	54.3
22-Feb-21	333	218	64	39.46	12.01
02-Mar-21	236	120	51	28.86	21.52
06-Mar-21	317	227	69	33.02	20.65
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	469	243	79	39.46	54.3
Minimum	80	58	18	7.37	12.01
Average	237.05	151.86	47.00	17.22	23.02
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:18

Area: Ib valley

Project: Samleswari OCP

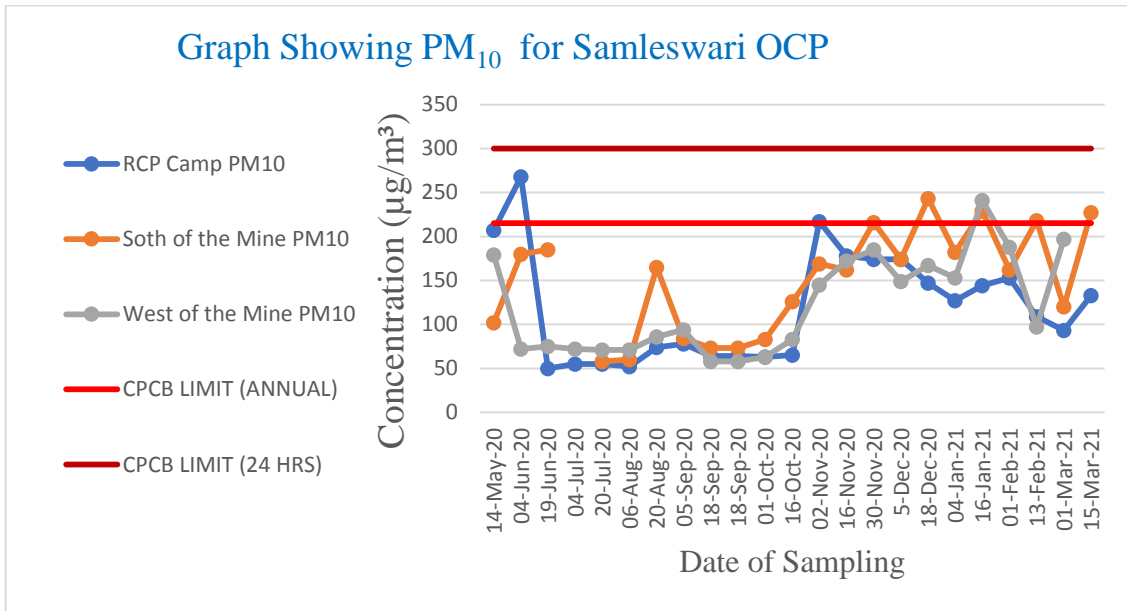
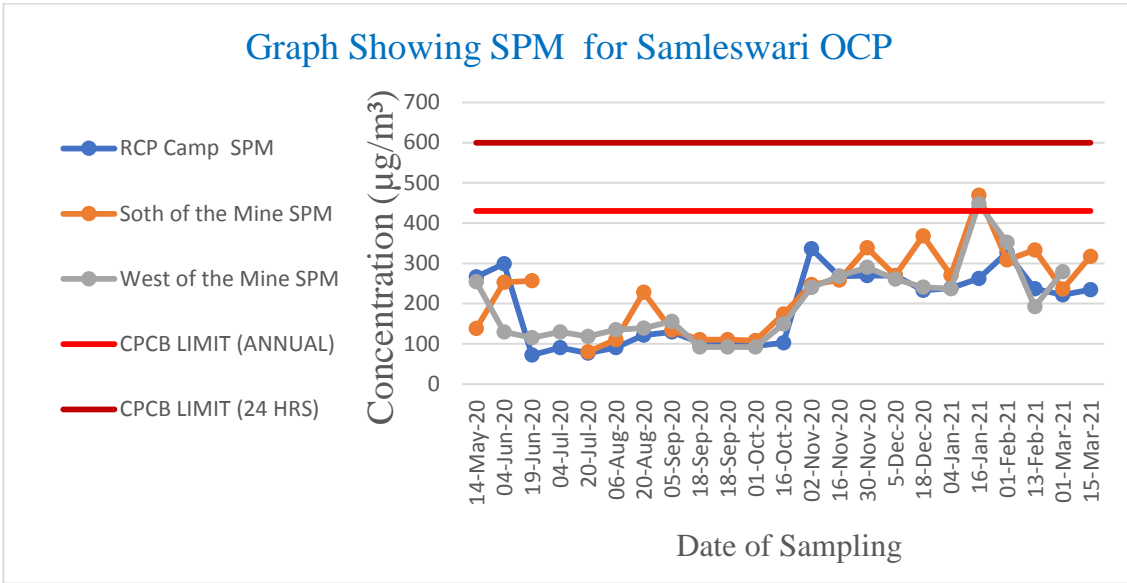
Monitoring Station: West of the Mine

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

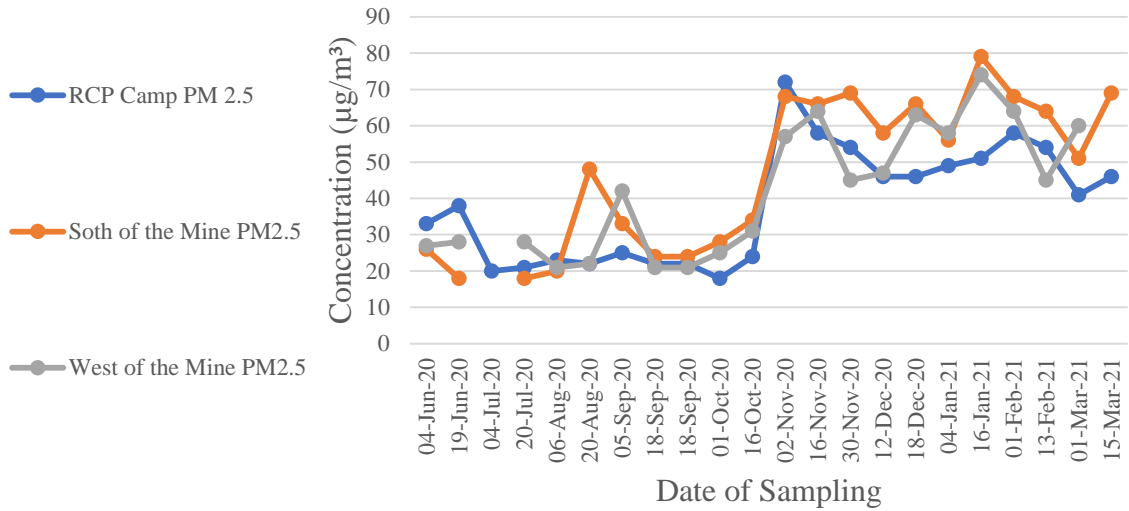
Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
15-May-20	254	179	20	11.66	25.06
04-Jun-20	129	72	27	12.32	20.36
19-Jun-20	115	75	28	12	12.48
04-Jul-20	129	72	27	12.32	20.36
20-Jul-20	118	71	28	10.64	21.36
06-Aug-20	135	71	21	10.03	26.1
20-Aug-20	139	86	22	9.02	22.68
05-Sep-20	156	94	42	10.39	20.27
19-Sep-20	92	58	21	9.9	17.24
19-Sep-20	92	58	21	9.9	17.24
03-Oct-20	92	63	25	10.4	16.39
16-Oct-20	149	83	31	14.18	26.9
02-Nov-20	240	145	57	13.43	21.62
16-Nov-20	268	172	64	14.4	27.38
30-Nov-20	290	185	45	14.89	26.52
12-Dec-20	261	149	47	15	26.72
28-Dec-20	241	167	63	21.01	32.1
11-Jan-21	237	153	58	19.2	42.98
25-Jan-21	448	241	74	18.9	32.45
08-Feb-21	352	188	64	18.94	30.25
22-Feb-21	192	97	45	23.02	40.79
06-Mar-21	279	197	60	19.18	49.34
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	448	241	74	23.02	49.34
Minimum	92	58	20	9.02	12.48
Average	200.36	121.64	40.45	14.12	26.21
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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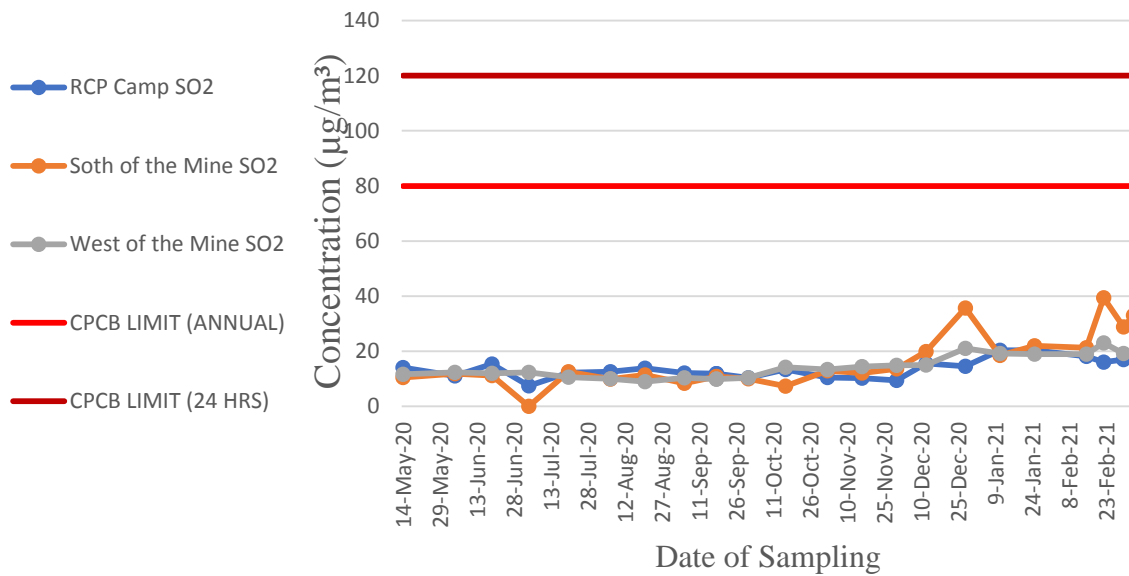
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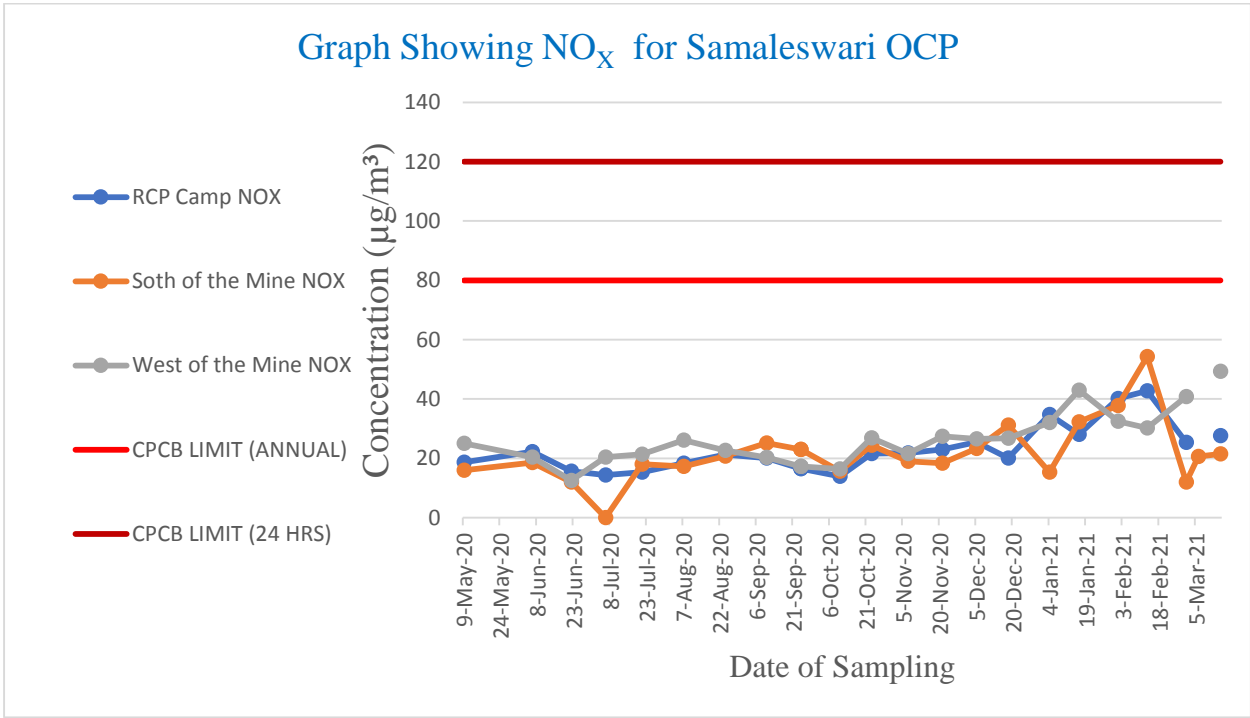


Graph Showing PM_{2.5} for Samleswari OCP



Graph Showing SO_x for Samleswari OCP





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Table:19

Area: Ib valley Area

Project: Samleswari OCP

Monitoring Station: Rampur Sub Area

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
04-Jun-20	27	89	147	12.54	17.56
05-Jun-20	25	81	147	17.16	14.36
11-Jun-20	30	87	153	12.01	13.25
12-Jun-20	21	96	116	12.17	16.89
19-Jun-20	20	89	119	15.36	15.65
20-Jun-20	26	83	120	11.21	15.34
25-Jun-20	27	46	110	10.86	15.21
26-Jun-20	27	43	73	10.6	14.4
10-Jul-20	24	89	125	9.23	15.93
11-Jul-20	16	91	132	7.49	14.36
17-Jul-20	21	57	82	14.69	16.89
18-Jul-20	17	51	79	9.92	18.12
24-Jul-20	19	60	86	9.2	22.68
25-Jul-20	21	70	91	8.66	21.35
30-Jul-20	30	47	71	13.36	15.36
31-Jul-20	19	70	96	10.07	15.8
05-Aug-20	26	65	140	9.95	16.48
06-Aug-20	22	77	151	7.51	15.21
12-Aug-20	19	80	133	8.82	17
13-Aug-20	21	90	135	8.6	22.37
20-Aug-20	29	76	115	12	17.1
21-Aug-20	33	87	106	12.35	15.64
27-Aug-20	25	67	111	5.87	16.01
28-Aug-20	22	50	98	8.32	25.67
03-Sep-20	22	55	88	9.65	18.34
04-Sep-20	28	69	106	10.29	21.26
10-Sep-20	34	88	124	9.13	17.5
11-Sep-20	29	71	115	12.36	23.25
17-Sep-20	19	67	98	7.93	18.64
18-Sep-20	18	58	85	11.06	20.87
22-Sep-20	24	76	112	7.94	18.43
23-Sep-20	26	84	120	9.02	20.95
01-Oct-20	18	52	83	9.66	16.5
03-Oct-20	23	63	96	12.01	20.5
08-Oct-20	21	67	92	9.13	15.59
09-Oct-20	24	55	95	13.2	18.03
16-Oct-20	21	65	91	13.8	16.42
17-Oct-20	19	56	80	7.87	16.64
21-Oct-20	30	82	118	10.68	19.54
22-Oct-20	25	64	98	8.67	21.53
30-Oct-20	23	61	106	8.63	19.9
31-Oct-20	28	88	133	11.74	19.3
05-Nov-20	36	69	146	7.81	19.79

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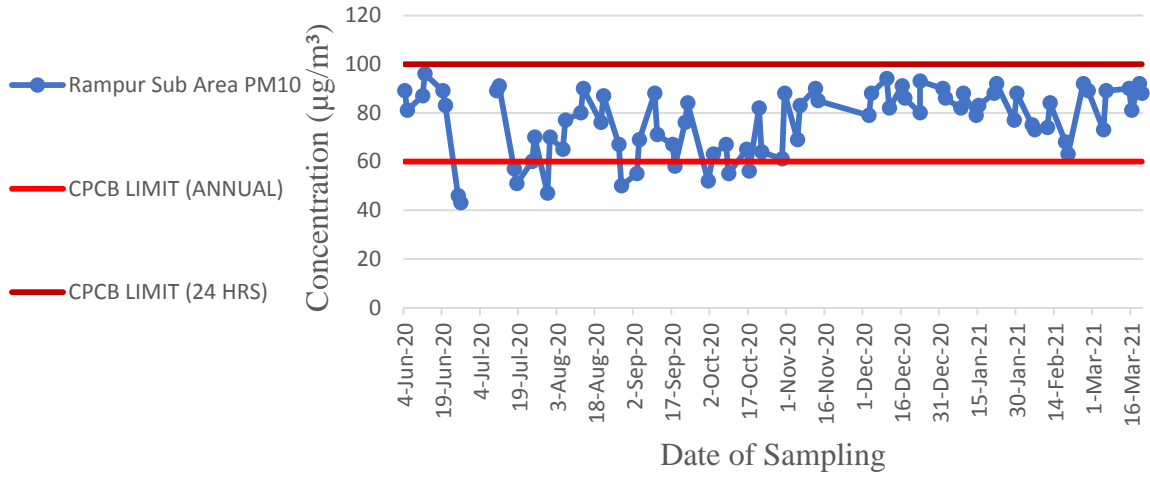
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06-Nov-20	42	83	143	14.68	26.85
12-Nov-20	50	90	156	14.74	26.04
13-Nov-20	46	85	158	12.22	23.24
03-Dec-20	39	79	135	11.33	24.89
04-Dec-20	47	88	157	13.14	27.73
10-Dec-20	50	94	158	10.3	20.09
11-Dec-20	48	82	172	14.85	47.84
16-Dec-20	52	91	176	13.02	24.34
17-Dec-20	46	86	163	12.09	22.34
23-Dec-20	49	80	151	11.66	28.72
23-Dec-20	53	93	169	14.28	23
01-Jan-21	45	90	189	18.09	26.96
02-Jan-21	47	86	175	26.41	35.05
08-Jan-21	47	82	162	16.17	24.4
09-Jan-21	49	88	178	14.05	40.65
14-Jan-21	42	79	145	13.09	35.62
15-Jan-21	45	83	172	14.93	20.06
21-Jan-21	51	88	223	16.82	33.76
22-Jan-21	53	92	208	25.69	26.63
29-Jan-21	45	77	154	15.81	34.86
30-Jan-21	51	88	161	21.61	43.8
05-Feb-21	49	75	169	14.11	34.17
06-Feb-21	47	73	178	18.62	38.55
11-Feb-21	37	74	151	17.87	25.21
12-Feb-21	45	84	187	19.19	43.17
18-Feb-21	47	68	145	21.84	30.53
19-Feb-21	44	63	129	17.07	27.95
25-Feb-21	51	92	209	21.21	43
27-Feb-21	49	89	171	15.98	34.84
05-Mar-21	45	73	180	16.38	25.32
06-Mar-21	47	89	191	15.76	31.9
15-Mar-21	51	90	195	15.03	17.25
16-Mar-21	48	81	186	13.1	15.28
19-Mar-21	53	92	206	22.48	25.28
20-Mar-21	51	88	215	22.16	22.22
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	96	223	26.41	47.84
Minimum	16	43	71	5.87	13.25
Average	34.56	76.49	137.68	13.13	23.12
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

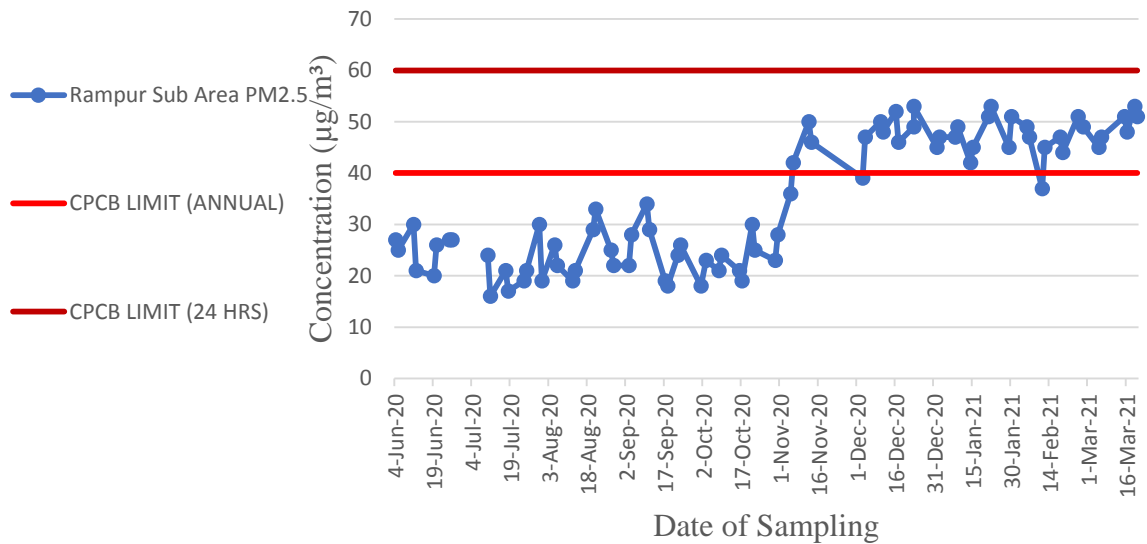
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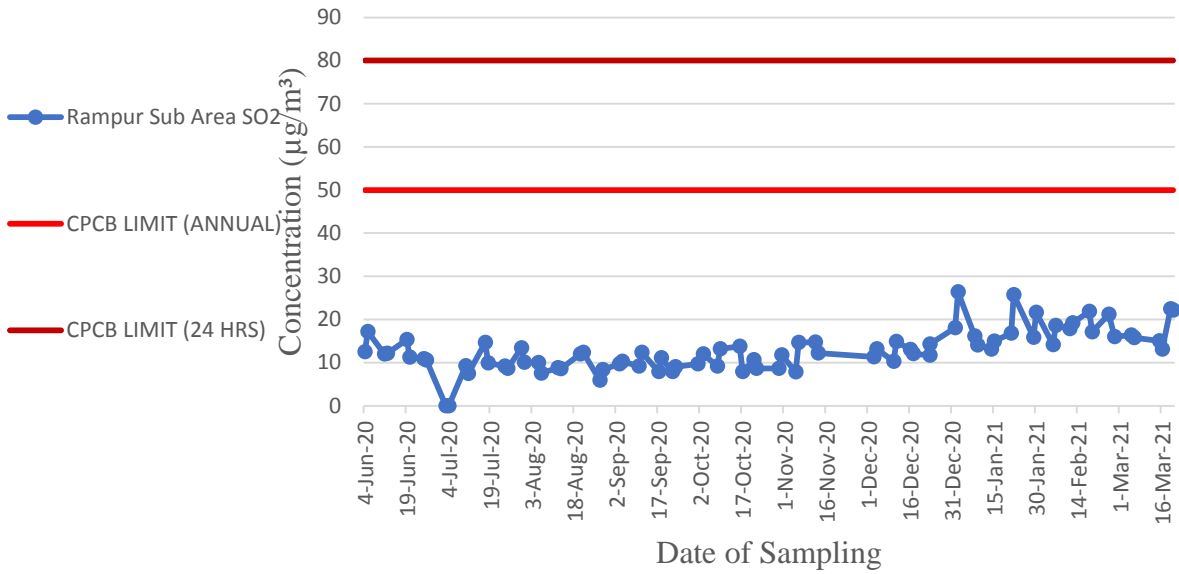
Graph Showing PM₁₀ for Samleswari OCP



Graph Showing PM_{2.5} for Samleswari OCP



Graph Showing SO₂ for Samleswari OCP



Graph Showing NO_x for Samleswari OCP

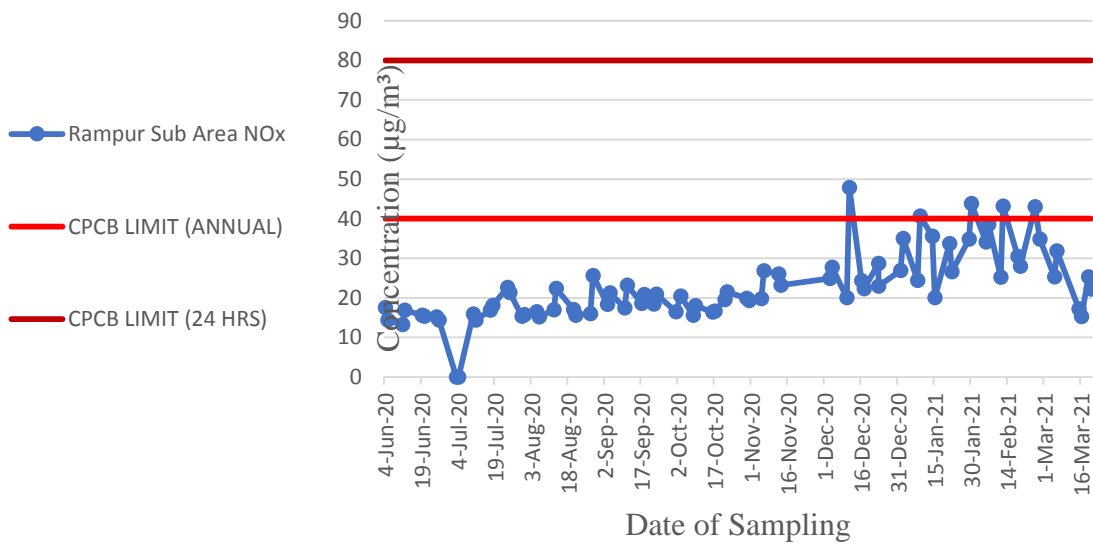


Table:20

Area: Ib valley

Project: Lajkura OCP

Monitoring Station: Near Project Office

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
18-May-20	145	118	29	13.41	16.43
29-May-20	146	91	21	8.81	17.85
06-Jun-20	182	128	41	13.14	17.53
22-Jun-20	311	239	36	7.68	15.41
06-Jul-20	155	118	31	10.58	15.88
21-Jul-20	89	64	24	10.04	15.23
07-Aug-20	124	87	17	9.3	14.66
24-Aug-20	116	75	23	8.39	16.01
09-Sep-20	111	62	24	8.49	16.14
24-Sep-20	304	228	29	9.24	16.86
24-Sep-20	304	228	29	9.24	16.86
09-Oct-20	95	62	18	8.25	14.73
23-Oct-20	122	80	27	11.04	16.89
07-Nov-20	155	95	43	11.42	20.95
21-Nov-20	178	114	52	9.97	21.63
05-Dec-20	143	86	43	9.21	24.25
18-Dec-20	219	137	48	16.18	20.52
04-Jan-21	337	213	55	13.52	35.05
16-Jan-21	304	189	61	17.56	25.55
01-Feb-21	362	207	48	16.12	32.31
13-Feb-21	389	231	52	25.85	34.99
01-Mar-21	287	174	56	31.86	19.15
15-Mar-21	263	136	50	19.54	11.49
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	389	239	61	31.86	35.05
Minimum	89	62	17	7.68	11.49
Average	213.45	138.36	37.64	12.97	20.00
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:21

Area: Ib valley

Project: Lajkura OCP

Monitoring Station: Near South Coal Stock

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
18-May-20	225	176	23	7.28	14.17
30-May-20	217	112	29	8.54	23.93
08-Jun-20	176	120	21	13.14	12.87
23-Jun-20	177	122	49	17.41	17.22
07-Jul-20	123	73	23	9.98	19.12
22-Jul-20	106	70	22	8.24	19.55
07-Aug-20	119	56	21	8.69	15.73
24-Aug-20	92	51	24	11.91	21.49
09-Sep-20	92	55	20	11.24	20.4
24-Sep-20	102	64	25	11.6	21.02
24-Sep-20	102	64	25	11.6	21.02
10-Oct-20	89	50	23	10.33	9.73
23-Oct-20	138	94	26	10.92	19.88
07-Nov-20	281	152	53	9.37	21.19
21-Nov-20	162	106	53	12.04	17.8
05-Dec-20	320	206	70	9.2	25.27
18-Dec-20	286	177	64	12.98	23.07
04-Jan-21	251	117	56	14.5	26.14
16-Jan-21	324	209	66	21.9	31.62
01-Feb-21	388	226	62	11.7	18.32
13-Feb-21	364	240	68	19.55	37.26
01-Mar-21	248	134	53	17.02	38.13
15-Mar-21	226	109	48	18.55	22.28
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	388	240	70	21.9	38.13
Minimum	89	50	20	8.24	9.73
Average	198.38	118.81	41.52	12.95	21.86
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:22

Area: IB valley

Project: Lajkura OCP

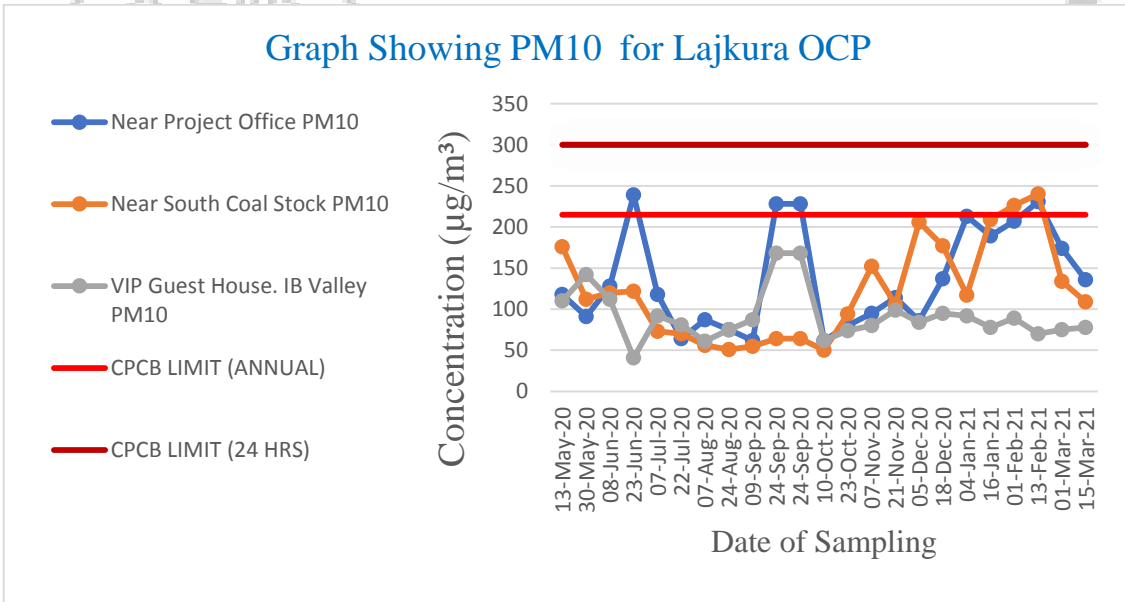
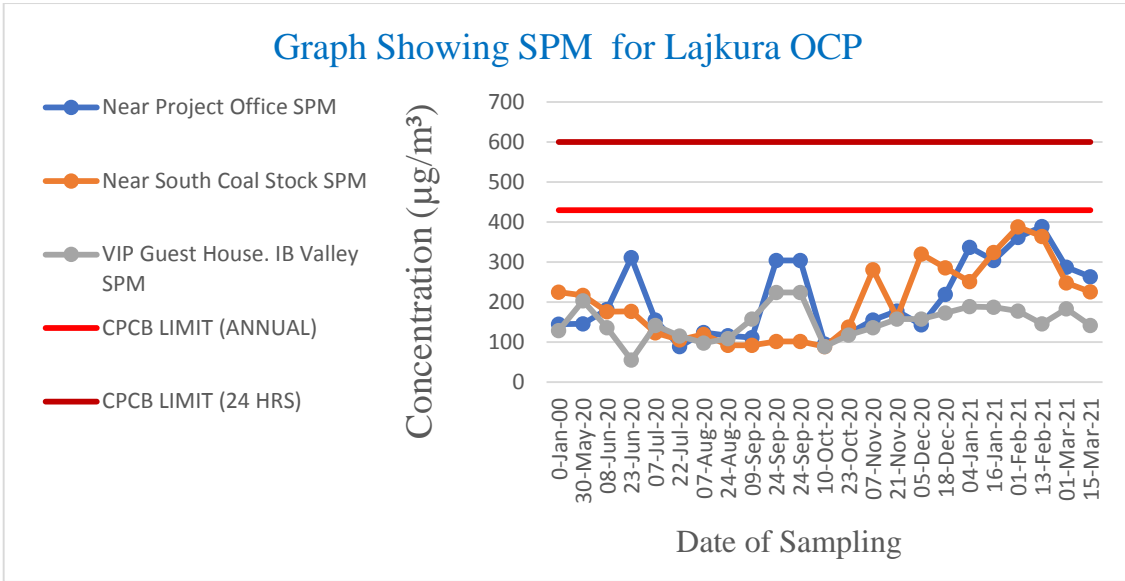
Monitoring Station: VIP Guest House. IB Valley

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

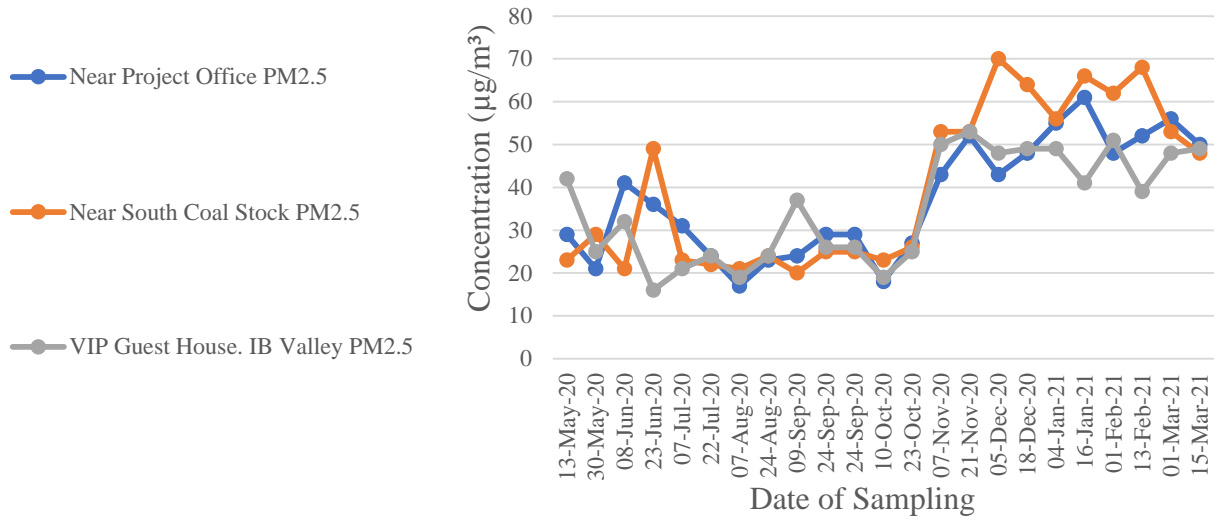
Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
13-May-20	129	110	42	9.07	23.82
28-May-20	203	142	25	9.34	11.45
05-Jun-20	136	112	32	10.72	16.51
20-Jun-20	55	41	16	9.63	13.24
10-Jul-20	142	92	21	11.8	15.66
25-Jul-20	115	81	24	9.21	22.3
05-Aug-20	98	61	19	11.15	20.83
22-Aug-20	109	75	24	7.71	16.06
03-Sep-20	158	87	37	8.48	19.94
24-Sep-20	224	168	26	8.81	23.96
24-Sep-20	224	168	26	8.81	23.96
14-Oct-20	89	62	19	9.95	14.15
29-Oct-20	118	74	25	7.64	10.17
04-Nov-20	136	80	50	11.75	20.85
18-Nov-20	158	99	53	11.49	22.3
02-Dec-20	158	84	48	11.44	21.73
16-Dec-20	173	95	49	13.1	23.29
01-Jan-21	189	92	49	14.62	23.46
20-Jan-21	187	78	41	21.03	35.98
03-Feb-21	178	89	51	25.78	26.06
17-Feb-21	146	70	39	16.99	35.28
03-Mar-21	183	75	48	20.68	37.69
17-Mar-21	142	78	49	12.76	35.73
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	224	168	53	25.78	37.69
Minimum	55	41	16	7.64	10.17
Average	150.95	91.05	35.05	12.40	22.30
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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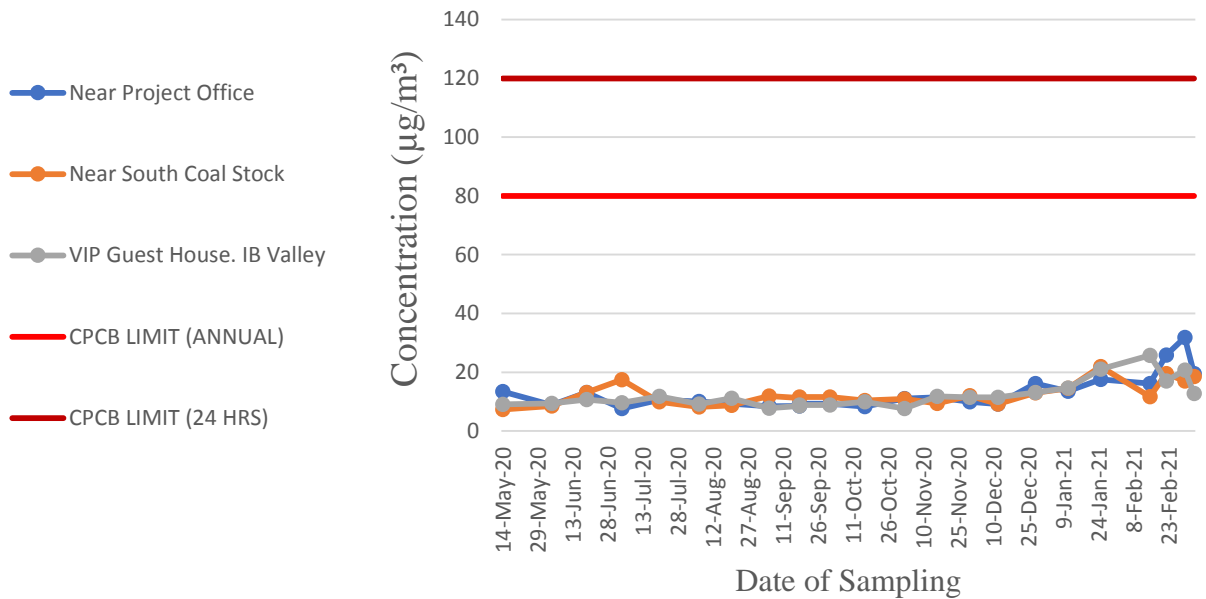
JOB NO.750001

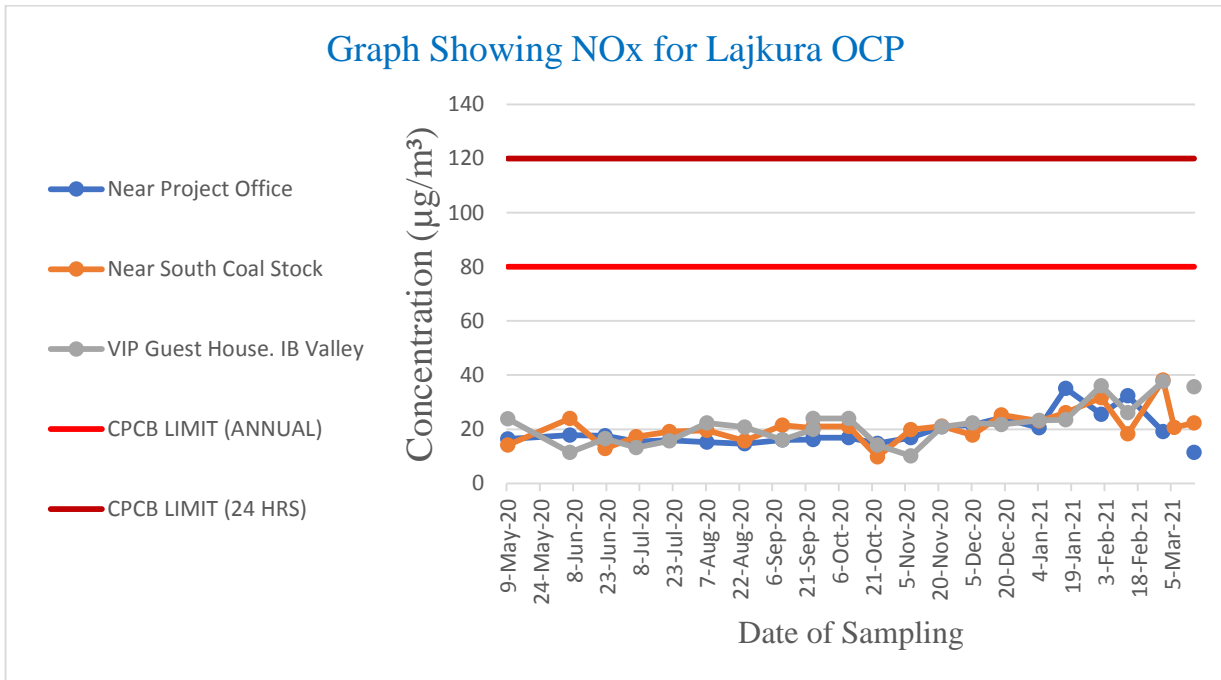


Graph Showing PM_{2.5} for Lajkura OCP



Graph Showing SO_x for Lajkura OCP





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Table:23

Area: Ib valley

Project: Lajkura OCP

Monitoring Station: Khokelmal

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
05-Jun-20	46	68	110	10.96	20.2
06-Jun-20	24	93	127	13.46	20.03
12-Jun-20	24	95	151	11.42	30.11
13-Jun-20	28	96	140	12.63	15.27
20-Jun-20	57	72	108	9.59	13.85
21-Jun-20	48	63	87	11.9	18.19
26-Jun-20	25	47	77	8.08	11.06
27-Jun-20	24	55	90	11.09	15.17
11-Jul-20	23	53	115	11.81	15.52
12-Jul-20	17	61	101	12.57	16.06
17-Jul-20	23	93	118	9.91	12.53
18-Jul-20	25	66	98	12.74	21.76
24-Jul-20	27	76	108	10.21	18.45
25-Jul-20	22	80	110	12.73	22.81
30-Jul-20	25	55	79	10.27	16.11
31-Jul-20	20	54	94	7.05	14.31
05-Aug-20	21	54	93	11.64	18.51
06-Aug-20	22	56	120	8.42	19.72
13-Aug-20	30	92	148	12.03	28.14
14-Aug-20	26	69	127	9.02	25.03
21-Aug-20	36	83	111	8.11	32.53
22-Aug-20	28	60	94	8.39	16.99
28-Aug-20	21	72	118	14.62	29.73
29-Aug-20	24	61	108	8.55	25.54
04-Sep-20	35	82	145	12.31	20.5
05-Sep-20	27	74	127	11.51	20.81
11-Sep-20	22	64	113	11.69	24.61
12-Sep-20	29	75	136	8.55	24.19
18-Sep-20	18	51	77	10.09	21.7
19-Sep-20	17	46	77	9.99	19.06
25-Sep-20	24	81	118	12.5	26.3
26-Sep-20	26	92	129	12.31	21.44
01-Oct-20	24	71	101	12.25	20.91
03-Oct-20	27	77	110	12.92	16.97
10-Oct-20	24	57	103	10.56	24.04
10-Oct-20	24	57	103	10.56	24.04
16-Oct-20	26	64	93	13.49	25.41
17-Oct-20	21	61	89	8.28	21.2

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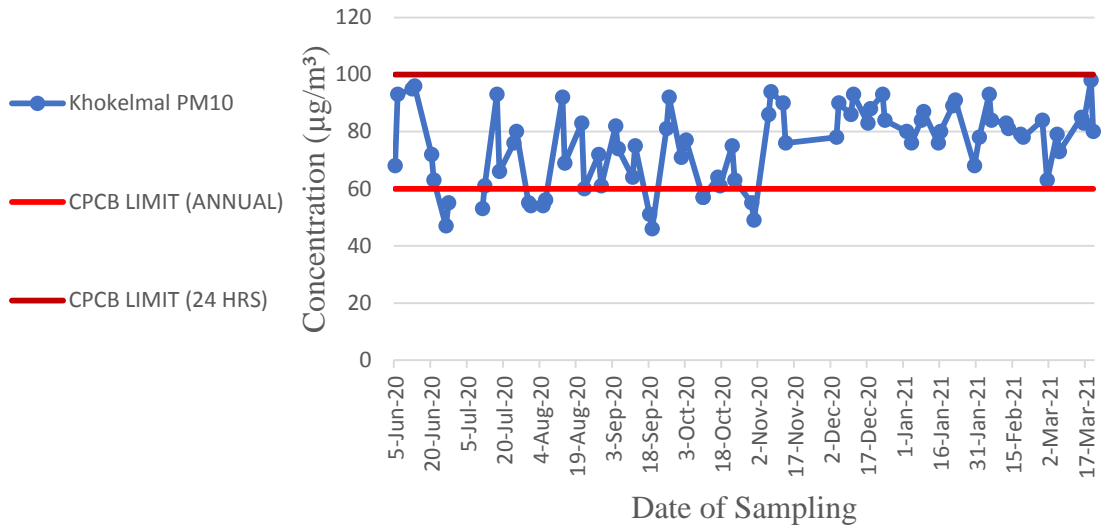
JOB NO.750001

22-Oct-20	28	75	108	10.54	19.5
23-Oct-20	24	63	97	13.01	21.36
30-Oct-20	19	55	93	11.16	22.2
31-Oct-20	17	49	79	10.99	19.5
06-Nov-20	45	86	146	11.74	28.21
07-Nov-20	49	94	157	13.44	20.2
12-Nov-20	53	90	165	13.97	23.24
13-Nov-20	46	76	155	12.07	19.28
04-Dec-20	46	78	168	8.95	21.58
05-Dec-20	48	90	153	13.2	27
10-Dec-20	50	86	156	10.39	24.35
11-Dec-20	53	93	179	12.48	20.74
17-Dec-20	44	83	137	11.89	28
18-Dec-20	47	88	161	17.15	21.39
23-Dec-20	52	93	166	15.58	21.98
24-Dec-20	49	84	151	13.13	25.18
02-Jan-21	48	80	149	17.46	32.18
04-Jan-21	44	76	130	19.71	38.03
08-Jan-21	43	84	149	16.27	31.65
09-Jan-21	48	87	163	18.27	26.43
15-Jan-21	44	76	140	18.26	43.34
16-Jan-21	42	80	147	18.83	32.05
21-Jan-21	53	89	155	25.73	35.94
22-Jan-21	48	91	170	19.55	39.01
30-Jan-21	38	68	119	17.86	33.9
01-Feb-21	42	78	140	24.44	22.07
05-Feb-21	53	93	167	19.31	26.5
06-Feb-21	51	84	173	15.05	33.67
12-Feb-21	50	83	176	17.99	43.59
13-Feb-21	45	81	157	18.99	51.97
18-Feb-21	49	79	136	20.67	33.82
19-Feb-21	51	78	122	14.62	42.28
27-Feb-21	47	84	152	18.23	45.04
01-Mar-21	45	63	180	24.11	31.73
05-Mar-21	41	79	157	17.4	34.53
06-Mar-21	46	73	159	18.5	38.97
15-Mar-21	45	85	207	20.64	25.39
16-Mar-21	48	83	191	13.95	17.4
19-Mar-21	52	98	213	12.29	41.8
20-Mar-21	47	80	201	14.79	20.44
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	57	98	213	25.73	51.97
Minimum	17	46	77	7.05	11.06
Average	35.90	75.14	131.76	13.55	25.31
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

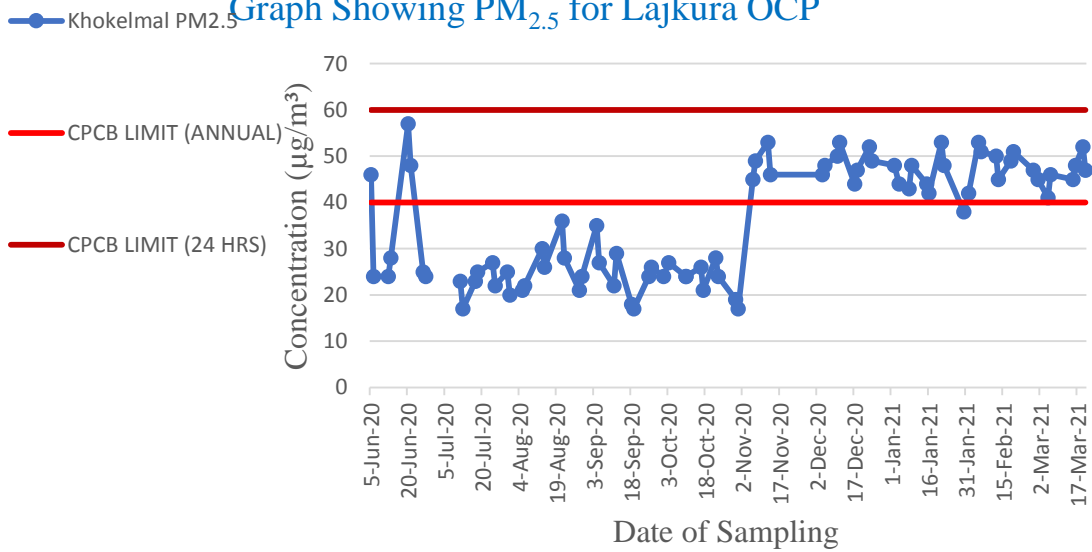
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Graph Showing PM₁₀ for Lajkura OCP



Graph Showing PM_{2.5} for Lajkura OCP



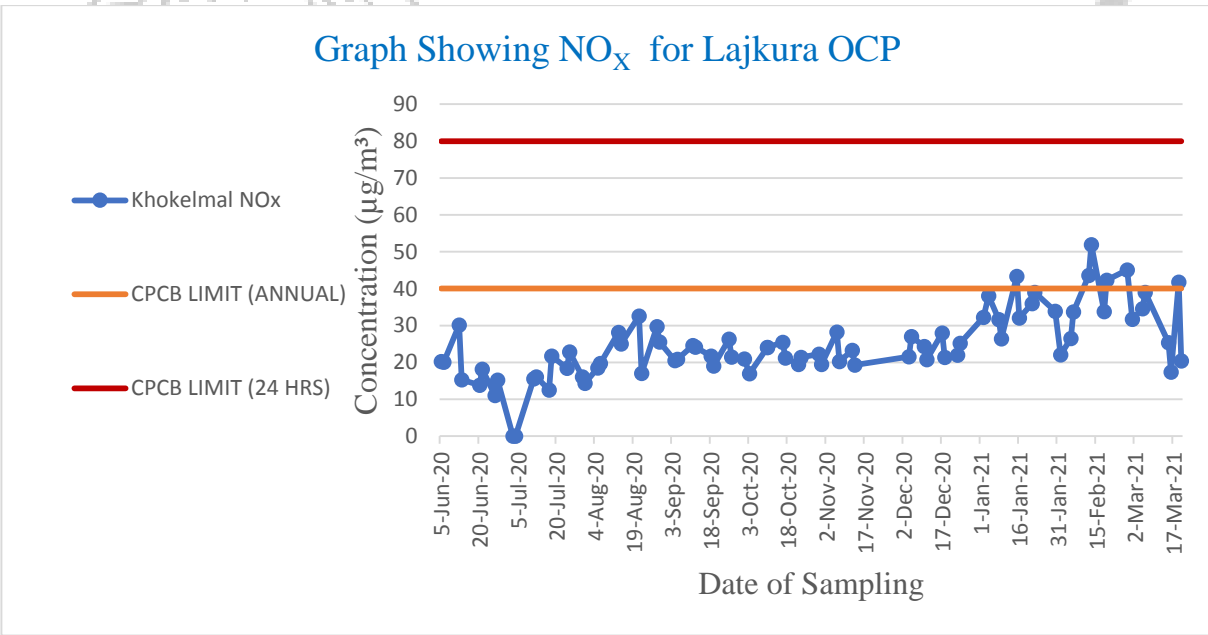
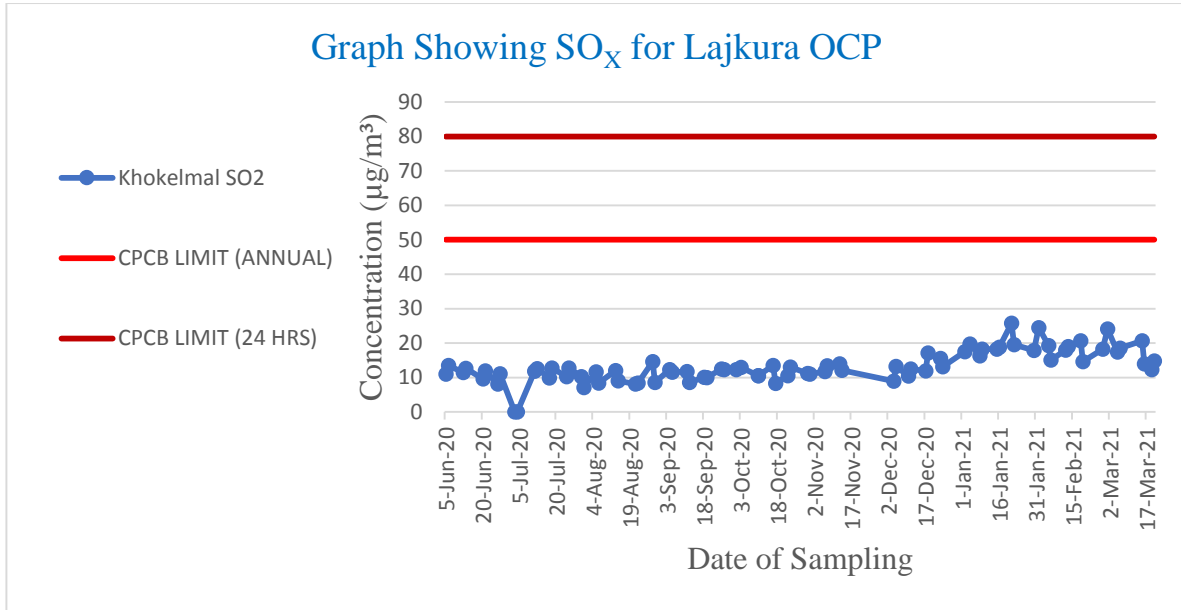


Table:24

Area: Lakhanpur

Project: Belpahar OCP

Monitoring Station: East of the Mine

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
15-Jun-20	78	64	48	10.08	13.18
29-Jun-20	102	83	37	9.6	11.74
13-Jul-20	102	69	22	13.31	17.01
29-Jul-20	265	192	44	12.17	18.32
14-Aug-20	142	63	24	11.77	18.57
31-Aug-20	92	58	20	13.69	16.39
14-Sep-20	204	129	39	10.86	22.35
14-Sep-20	204	129	39	10.86	22.35
28-Sep-20	88	57	20	10.54	23.6
28-Sep-20	88	57	20	10.54	23.6
12-Oct-20	106	64	20	13.2	18.03
27-Oct-20	106	72	23	9.38	18.42
09-Nov-20	198	110	48	11.39	18.94
23-Nov-20	284	194	58	11.91	27.43
07-Dec-20	262	145	53	13.91	30.24
19-Dec-20	249	171	62	14.98	34.69
05-Jan-21	209	143	51	14.67	32.44
18-Jan-21	247	159	48	14.73	24.79
02-Feb-21	276	158	55	16.21	26.43
15-Feb-21	296	182	63	16.35	31.12
02-Mar-21	368	248	55	17.37	40.42
12-Mar-21	318	193	54	22.09	26.16
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	368	248	63	22.09	40.42
Minimum	78	57	20	9.38	11.74
Average	194.73	124.55	41.05	13.16	23.46
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:25

Area: Lakhanpur

Project: Belpahar OCP

Monitoring Station: Near Magazine House

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
10-Jun-20	80	57	18	12.11	11.1
24-Jun-20	112	81	21	13.46	19.11
09-Jul-20	79	54	16	7.03	15.16
23-Jul-20	75	52	21	8.16	14.12
08-Aug-20	125	80	19	11.17	24.67
21-Aug-20	120	89	33	8.53	17.58
10-Sep-20	100	73	28	10.7	18.63
23-Sep-20	328	218	31	9.49	16.52
23-Sep-20	328	218	31	9.49	16.52
08-Oct-20	83	54	19	12.08	19.04
22-Oct-20	120	83	24	8.17	16.04
06-Nov-20	195	120	38	10.64	18.97
20-Nov-20	274	194	67	9.03	21.03
04-Dec-20	280	171	57	11.74	25.57
17-Dec-20	333	219	62	15.28	31.37
02-Jan-21	239	147	49	24.37	25.35
15-Jan-21	275	162	50	16.94	35.62
30-Jan-21	290	175	57	18.46	36.25
12-Feb-21	380	227	63	17.14	29.51
27-Feb-21	234	118	52	17.18	27.08
16-Mar-21	263	132	46	18.95	38.68
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	380	227	67	24.37	38.68
Minimum	75	52	16	7.03	11.1
Average	205.38	129.71	38.19	12.86	22.76
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:26

Area: Lakhanpur

Project: Belpahar OCP

Monitoring Station: South of the Mine

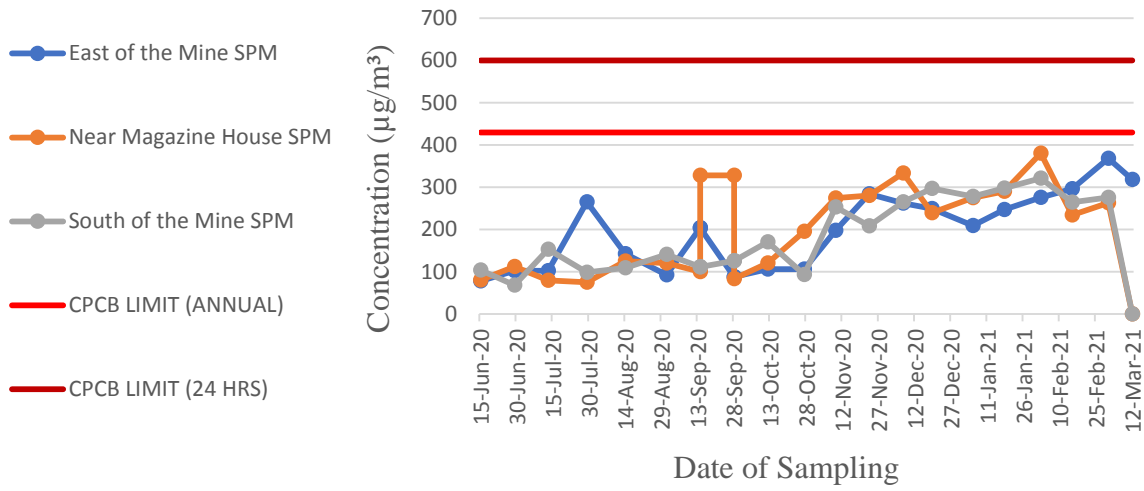
All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
15-Jun-20	104	70	26	14.81	11.21
29-Jun-20	68	52	29	11.39	13.24
13-Jul-20	153	75	18	12.12	18.17
29-Jul-20	98	69	22	8.75	20.13
14-Aug-20	109	61	18	13.48	25.34
31-Aug-20	141	71	30	11.46	15.15
14-Sep-20	111	79	31	13.12	20
14-Sep-20	111	79	31	13.12	20
28-Sep-20	126	90	25	12.11	17.84
28-Sep-20	126	90	25	12.11	17.84
12-Oct-20	170	115	26	11.35	23.6
27-Oct-20	93	61	20	11.55	25.02
09-Nov-20	253	142	56	13.94	22.32
23-Nov-20	208	99	48	9.81	19.28
07-Dec-20	265	168	66	9.38	24.17
19-Dec-20	297	184	69	12.6	24.82
05-Jan-21	278	166	61	18.69	26.29
18-Jan-21	298	165	59	20.38	21.66
02-Feb-21	321	169	61	13.23	30.12
08-Feb-21	264	141	58	21.5	34.39
12-Mar-21	276	158	60	21.14	23.97
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	321	184	69	21.5	34.39
Minimum	68	52	18	8.75	11.21
Average	184.29	109.71	39.95	13.62	21.65
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

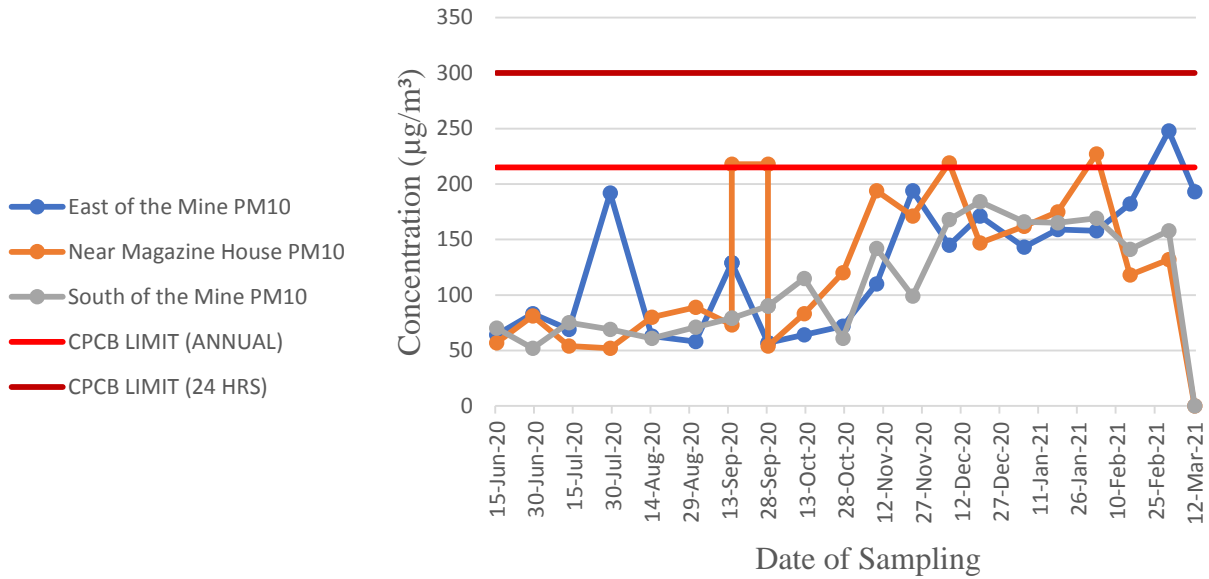
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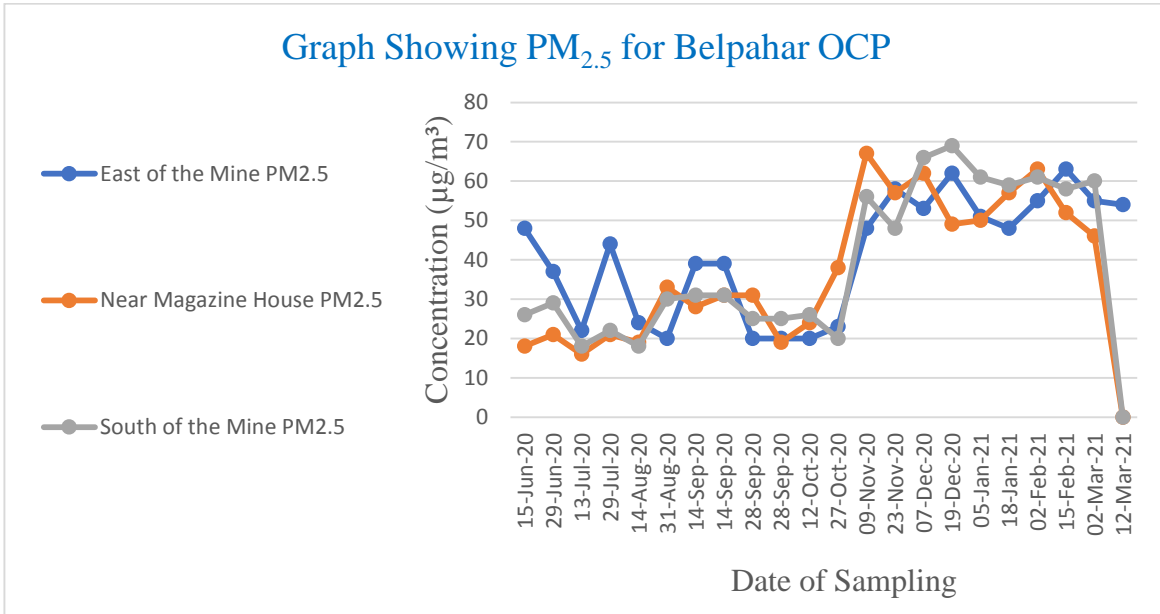
Graph Showing SPM for Belpahar OCP



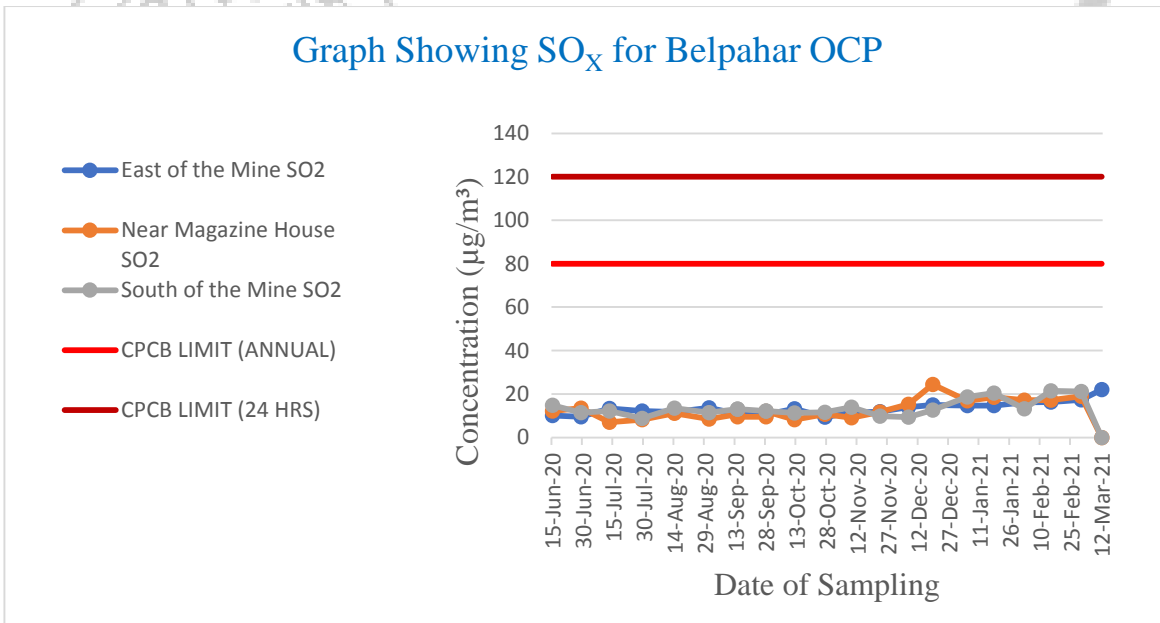
Graph Showing PM₁₀ for Belpahar OCP

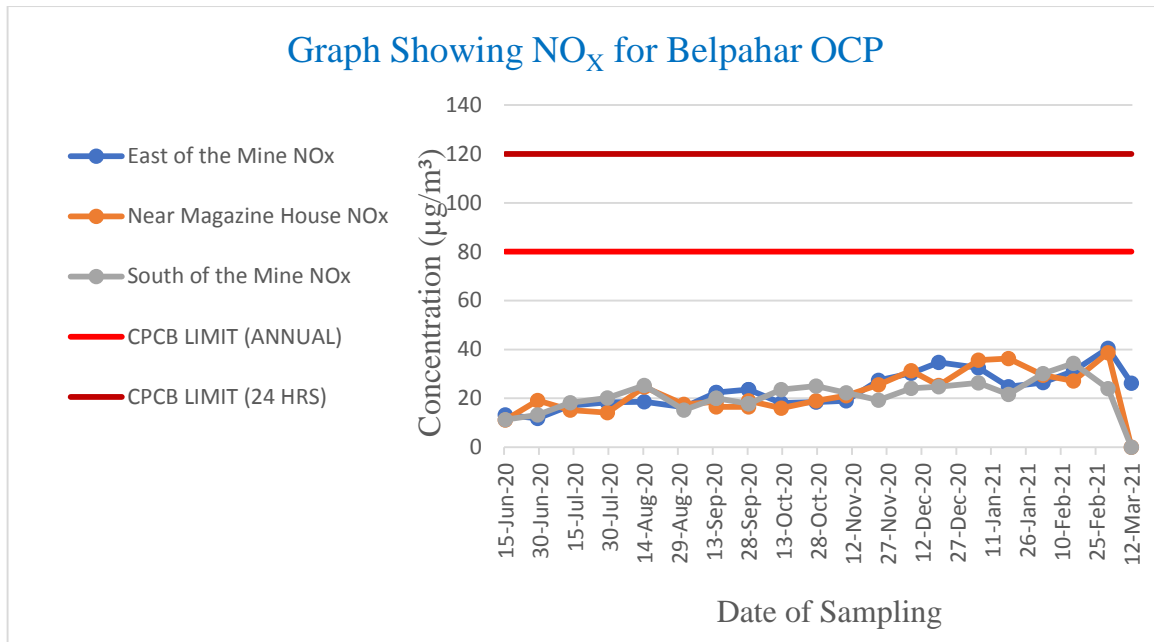


Graph Showing PM_{2.5} for Belpahar OCP



Graph Showing SO_x for Belpahar OCP





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Table:27

Area: Lakhanpur**Project:** Belpahar OCP**Monitoring Station:** Near Central WorkshopAll values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
02-Jun-20	37	85	143	11.56	12.68
03-Jun-20	38	94	170	12.42	12.88
09-Jun-20	21	91	164	14.89	13.82
10-Jun-20	21	89	171	13.89	13.56
17-Jun-20	28	82	110	9.86	15.07
18-Jun-20	34	42	76	15.59	20.43
23-Jun-20	35	44	61	14.85	18.78
24-Jun-20	24	63	85	8.64	11.74
30-Jun-20	25	67	109	6	7.45
01-Jul-20	32	73	115	6.63	13.46
08-Jul-20	23	58	85	8.8	14.46
09-Jul-20	17	49	89	9.45	16.31
14-Jul-20	19	54	88	8.45	13.25
15-Jul-20	20	79	120	10.57	14.59
22-Jul-20	26	48	62	15.31	26.13
23-Jul-20	25	62	96	9.15	16.4
29-Jul-20	23	88	133	10.66	14.82
30-Jul-20	20	70	121	8.06	16.92
02-Aug-20	24	64	110	8.34	19.8
03-Aug-20	27	61	89	8.1	21.09
11-Aug-20	19	78	138	8.57	16.36
12-Aug-20	24	85	134	9.33	12.29
18-Aug-20	32	89	128	11.7	12.6
19-Aug-20	27	83	121	8.37	13.79
25-Aug-20	24	62	99	8.06	13.98
26-Aug-20	21	52	86	10.04	15.49
31-Aug-20	22	57	96	9.17	20.67
01-Sep-20	27	86	132	7.99	16.85
07-Sep-20	23	73	117	9.27	15.5
08-Sep-20	32	95	138	8.45	16.19
15-Sep-20	32	88	133	8.39	17.54
16-Sep-20	29	84	120	11.35	17.39
21-Sep-20	34	91	135	9.23	22.19
22-Sep-20	29	78	114	10.71	18.66
29-Sep-20	22	60	98	6.04	17.09
30-Sep-20	24	76	116	11.63	14.85
06-Oct-20	26	73	102	9.08	12.92
07-Oct-20	22	58	92	8.88	17.92
13-Oct-20	22	68	102	8.17	12.69

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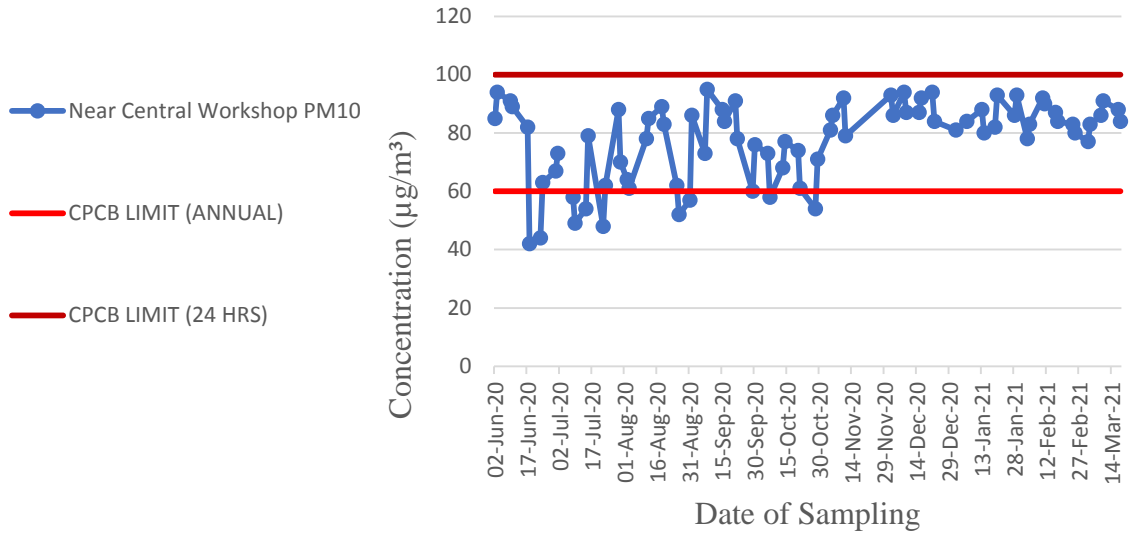
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14-Oct-20	27	77	110	10.21	18.73
20-Oct-20	22	74	108	10.89	17.94
21-Oct-20	19	61	94	9.87	17.52
28-Oct-20	19	54	86	9.03	20.56
29-Oct-20	25	71	112	10.8	16.4
04-Nov-20	38	81	147	10.11	22.64
05-Nov-20	45	86	163	9.39	22.71
10-Nov-20	51	92	157	10.79	20.71
11-Nov-20	43	79	154	10.38	21.41
02-Dec-20	56	93	182	11.19	26.05
03-Dec-20	51	86	165	12.96	23.49
07-Dec-20	44	77	143	19.83	21.31
08-Dec-20	54	94	176	10.99	21.93
09-Dec-20	49	87	189	14.6	20.44
15-Dec-20	50	87	157	16.32	22.61
16-Dec-20	53	92	169	14.23	25.23
21-Dec-20	53	94	180	18.8	27.53
22-Dec-20	46	84	153	11.91	25.94
30-Dec-20	52	87	141	20.1	27.78
01-Jan-21	48	81	149	16.54	32.09
06-Jan-21	48	84	154	16.09	35.48
13-Jan-21	55	88	225	17.13	28.44
14-Jan-21	50	80	189	15.41	30.75
19-Jan-21	47	82	179	15.2	27.93
20-Jan-21	55	93	217	18.02	24.1
28-Jan-21	47	86	196	11.48	17.2
29-Jan-21	53	93	217	14.78	24.79
03-Feb-21	41	78	130	12.27	33.62
04-Feb-21	45	83	148	16.94	25.83
10-Feb-21	51	92	162	18.02	36.15
11-Feb-21	53	90	197	17.65	30.34
16-Feb-21	43	87	146	18.71	19.61
17-Feb-21	49	84	181	12.77	26.42
24-Feb-21	50	83	181	15.12	22.13
25-Feb-21	53	80	191	20.42	26.72
03-Mar-21	47	77	166	13.58	31
04-Mar-21	48	83	182	18.91	29.49
09-Mar-21	46	86	197	26.48	34.53
10-Mar-21	52	91	187	18.75	23.92
17-Mar-21	49	88	212	10.77	16.48
18-Mar-21	50	84	179	18.58	21.49
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	56	95	225	26.48	36.15
Minimum	17	42	61	6	7.45
Average	36.09	77.85	139.61	12.39	20.47
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

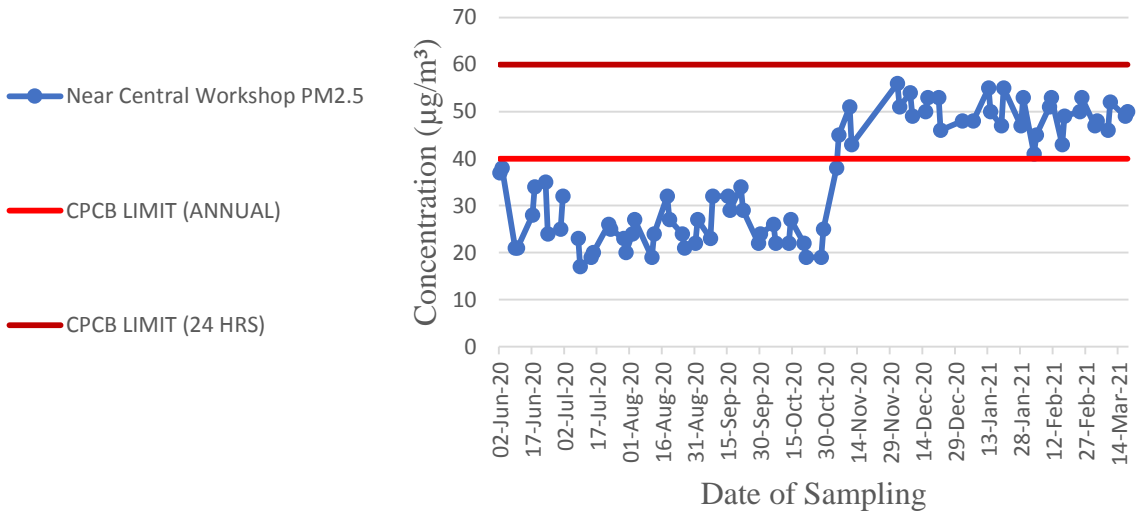
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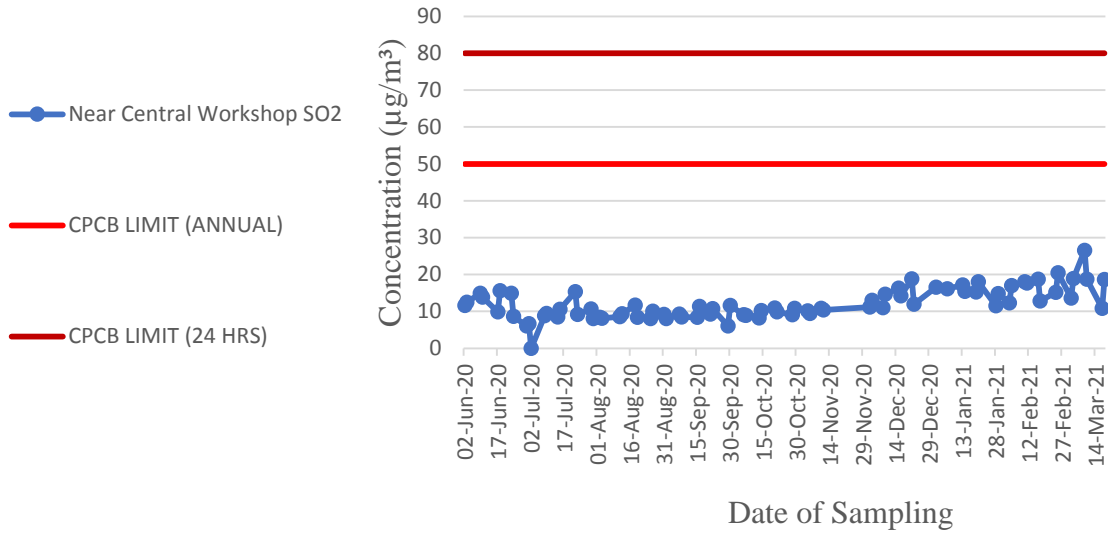
Graph Showing PM₁₀ for Belpahar OCP



Graph Showing PM_{2.5} for Belpahar OCP



Graph Showing SO_x for Belpahar OCP



Graph Showing NO_x for Belpahar OCP

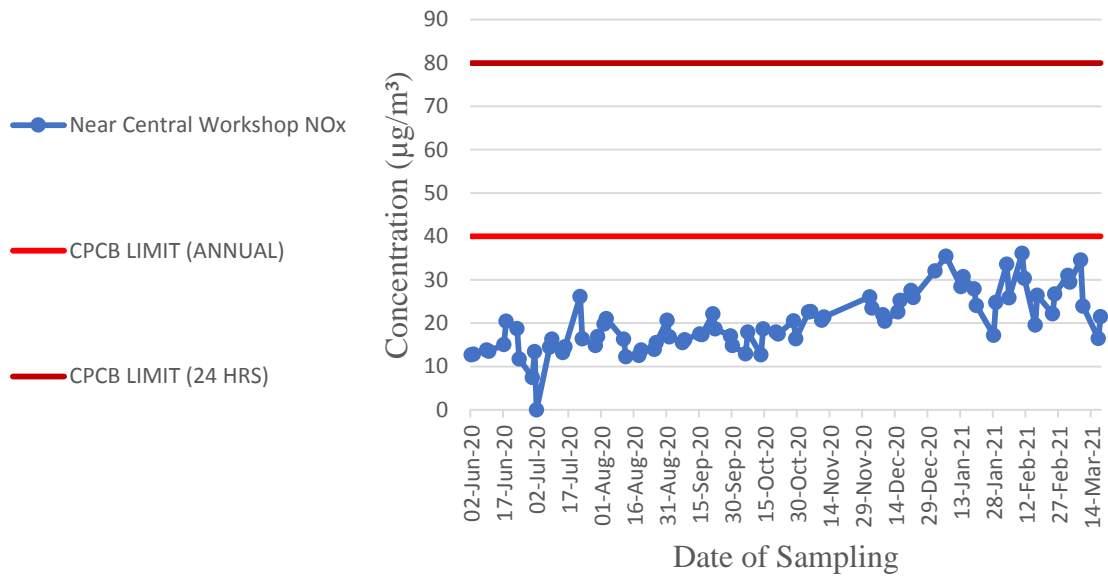


Table:28

Area: Lakhanpur

Project: Lakhanpur OCP

Monitoring Station: Near Lilari Nallah Pump House

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

Date	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
12-Jun-20	218	156	24	11.31	11.65
26-Jun-20	88	63	22	14.34	16.94
11-Jul-20	100	52	29	9.61	15.07
25-Jul-20	73	50	24	9.32	20.41
12-Aug-20	117	57	18	12.04	23.31
28-Aug-20	93	67	20	13.6	22.65
14-Sep-20	142	93	32	11.8	16.44
28-Sep-20	104	62	20	10.7	22.36
28-Sep-20	104	62	20	10.7	22.36
13-Oct-20	95	57	18	10.03	14.98
31-Oct-20	95	69	23	12.75	19.52
13-Nov-20	193	121	44	11.2	25.53
27-Nov-20	189	128	42	10.53	23.13
11-Dec-20	221	139	38	10.44	22.69
24-Dec-20	247	155	49	11.05	22.96
09-Jan-21	193	116	51	18.51	23.5
22-Jan-21	280	171	50	16.87	45.66
06-Feb-21	247	159	50	17.09	23.88
19-Feb-21	192	106	43	18.69	29.16
06-Mar-21	270	166	59	15.35	24.83
20-Mar-21	221	104	46	13.29	14.66
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	280	171	59	18.69	45.66
Minimum	73	50	18	9.32	11.65
Average	165.81	102.52	34.38	12.82	21.99
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:29

Area: Lakhanpur

Project: Lakhanpur OCP

Monitoring Station: Near Quarry 3

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
13-Jun-20	111	76	23	13.42	15.03
27-Jun-20	274	235	36	9.43	15.86
13-Jul-20	88	42	21	7.17	16.48
28-Jul-20	161	87	41	9.51	14.85
08-Aug-20	111	53	23	12.44	20.76
22-Aug-20	101	71	23	11.48	27.38
10-Sep-20	111	98	27	11	21.9
26-Sep-20	105	74	23	11.51	28.08
26-Sep-20	105	74	23	11.51	28.08
13-Oct-20	98	62	26	12.08	20.62
31-Oct-20	94	63	27	9.6	20.04
10-Nov-20	228	131	51	11.24	22.94
27-Nov-20	295	189	68	14.42	22.39
11-Dec-20	326	193	65	12.6	26.66
24-Dec-20	349	224	68	16.02	25.75
09-Jan-21	363	232	64	24.21	25.73
22-Jan-21	336	205	53	20.65	51.51
06-Feb-21	336	188	64	20.47	35.19
19-Feb-21	293	181	66	22.9	43.22
06-Mar-21	192	105	50	17.52	29.79
20-Mar-21	256	144	52	17.66	28.57
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	363	235	68	24.21	51.51
Minimum	88	42	21	7.17	14.85
Average	206.33	129.86	42.57	14.14	25.75
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:30

Area: Lakhanpur

Project: Lakhanpur OCP

Monitoring Station: West of Quarry 3

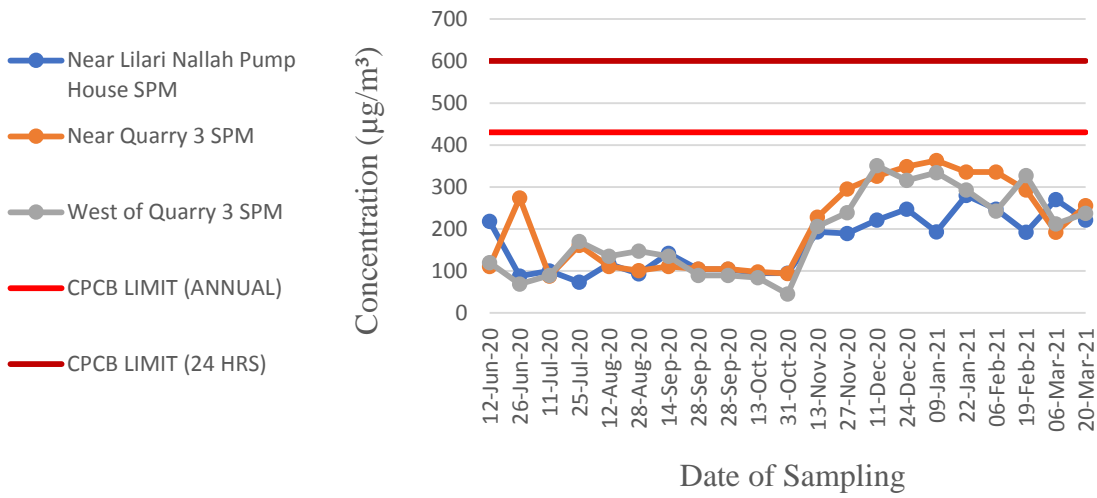
All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
13-Jun-20	120	94	53	14.31	14.15
27-Jun-20	69	42	33	10.24	10.96
13-Jul-20	89	60	32	10.62	20.36
28-Jul-20	170	98	35	11.9	18.7
08-Aug-20	135	62	20	11.17	25.98
22-Aug-20	147	89	18	10.14	30.56
10-Sep-20	135	91	29	9.37	22.84
26-Sep-20	89	58	19	13.52	21.74
26-Sep-20	89	58	19	13.52	21.74
13-Oct-20	84	58	19	10.96	21.38
28-Oct-20	45	35	10	9.65	24.72
10-Nov-20	206	97	39	13.44	24.93
24-Nov-20	239	142	62	10.79	20.7
08-Dec-20	351	231	64	13.69	19.61
21-Dec-20	316	181	60	16.46	26.42
06-Jan-21	334	184	62	27.21	29.09
19-Jan-21	293	191	58	19.27	31.91
03-Feb-21	243	136	57	20.09	41.68
16-Feb-21	327	228	63	18.13	36.02
03-Mar-21	212	118	55	19.24	30.49
17-Mar-21	237	125	49	21.02	28.3
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	351	231	64	27.21	41.68
Minimum	45	35	10	9.37	10.96
Average	187.14	113.24	40.76	14.51	24.87
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

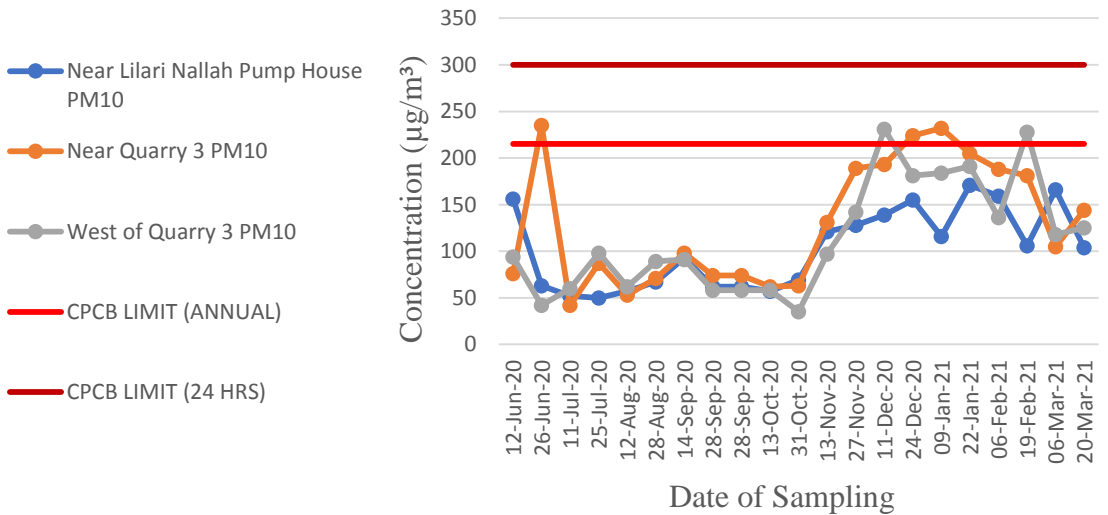
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JOB NO.750001

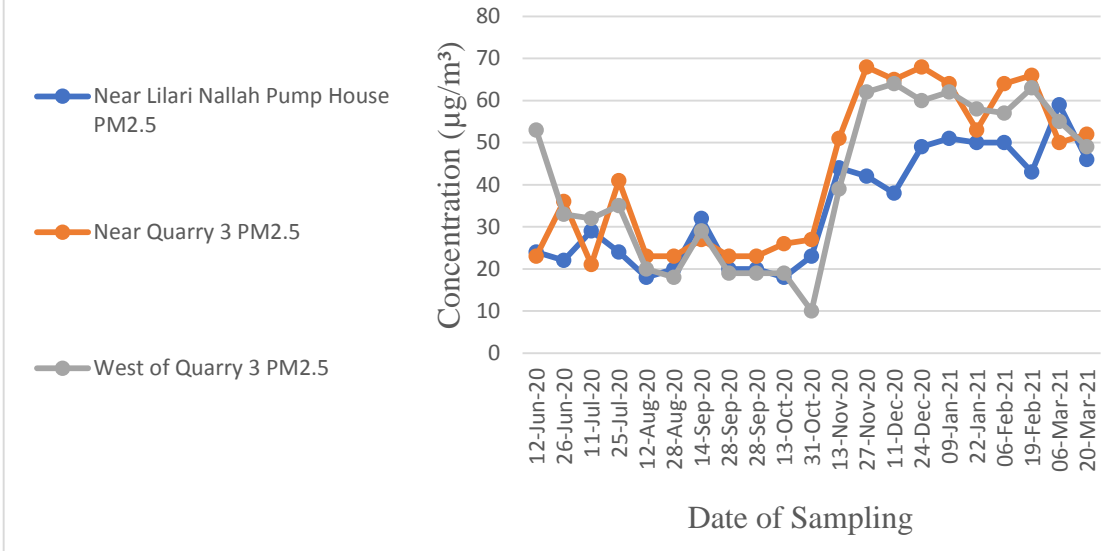
Graph Showing SPM for Lakhanpur OCP



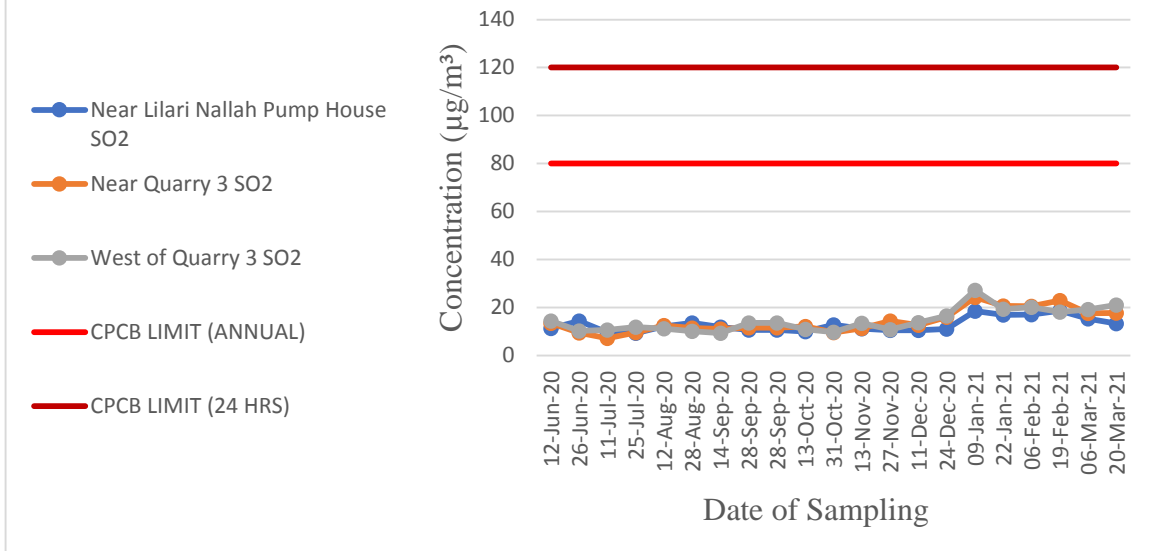
Graph Showing PM₁₀ for Lakhanpur OCP

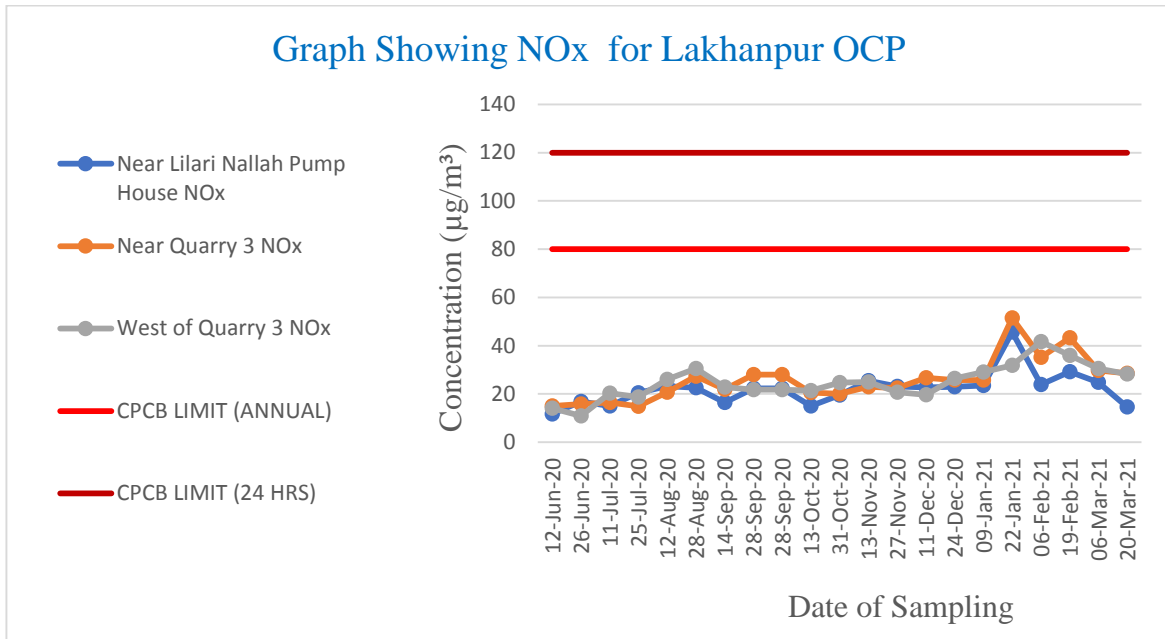


Graph Showing PM_{2.5} for Lakhanpur OCP



Graph Showing SO_x for Lakhanpur OCP





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Table:31

Area: Lakhanpur

Project: Lakhanpur OCP

Monitoring Station: South West of Quarry 6

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
05-Jun-20	23	91	127	12.98	20.74
06-Jun-20	20	83	113	12.51	11.44
12-Jun-20	24	71	120	11.3	17.89
13-Jun-20	40	54	95	10.75	24.05
20-Jun-20	26	51	71	10.28	9.82
21-Jun-20	20	56	84	9.12	10.28
26-Jun-20	29	50	85	9.33	11.74
27-Jun-20	25	75	93	11.52	14.68
11-Jul-20	23	52	91	12.55	17.31
12-Jul-20	18	60	91	9.93	15.36
17-Jul-20	18	77	115	13.88	18.24
18-Jul-20	16	85	121	10.58	17.39
24-Jul-20	18	67	94	10.14	16.66
25-Jul-20	23	54	85	11.18	22.74
30-Jul-20	29	74	116	9.09	21.09
31-Jul-20	29	42	73	8.16	16.57
05-Aug-20	34	54	127	12.62	18.4
06-Aug-20	29	50	108	10.47	16.35
13-Aug-20	23	83	124	8.3	17.6
14-Aug-20	20	65	113	8.87	21.72
21-Aug-20	20	69	97	10.85	23.53
22-Aug-20	19	50	70	6.42	22.28
28-Aug-20	29	73	101	9.85	15.37
29-Aug-20	24	81	120	8.7	21.71
04-Sep-20	25	69	116	12.34	21.49
05-Sep-20	23	61	109	10.04	22.26
11-Sep-20	32	79	131	9.36	23.55
12-Sep-20	24	76	123	8.28	20.37
18-Sep-20	21	65	94	9.4	22.74
19-Sep-20	18	51	83	9.64	21.37
25-Sep-20	26	86	129	11.54	18.36
26-Sep-20	28	89	138	8.84	20.52
01-Oct-20	23	58	87	8.76	15.66
03-Oct-20	26	68	101	12.33	14.28
09-Oct-20	30	86	126	12.62	18.23
10-Oct-20	24	65	101	14.07	19.22
16-Oct-20	20	66	104	8.29	19.1
17-Oct-20	17	57	93	14.21	21.75
22-Oct-20	28	72	108	10.51	18.72
23-Oct-20	20	60	96	8.02	25.88
30-Oct-20	27	66	110	12.79	21.8

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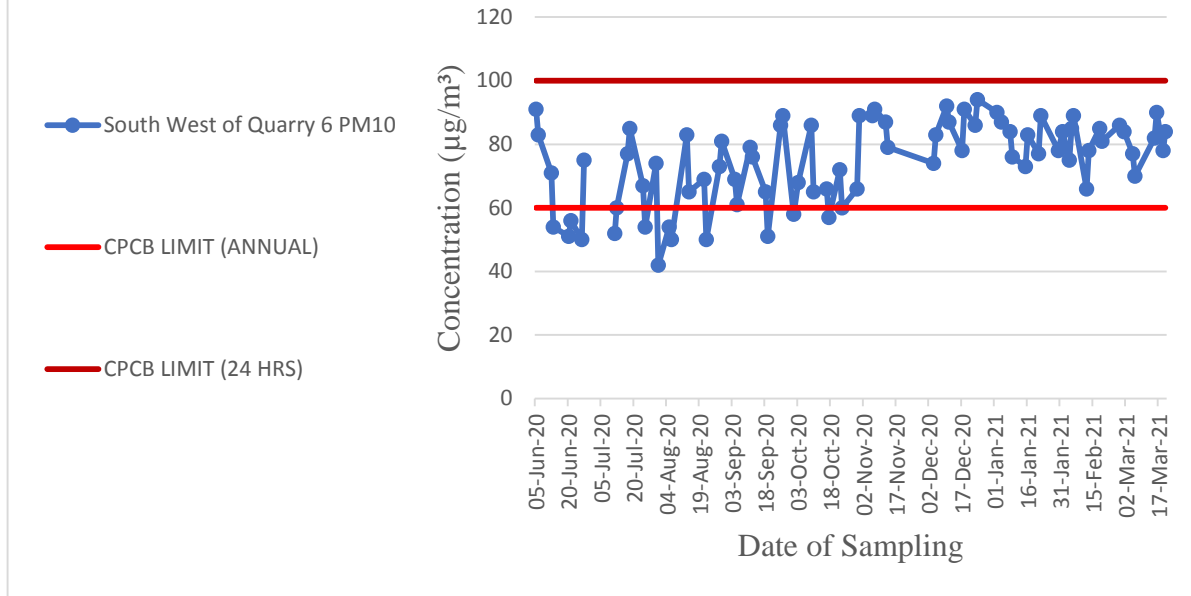
JOB NO.750001

31-Oct-20	30	89	133	12.76	21
06-Nov-20	48	89	160	9.63	19.83
07-Nov-20	44	91	175	14.52	25.87
12-Nov-20	50	87	194	10.57	24.46
13-Nov-20	42	79	178	12.65	24.68
04-Dec-20	37	74	140	9.41	21.12
05-Dec-20	40	83	137	10.73	22.29
10-Dec-20	47	92	157	14.65	29.04
11-Dec-20	50	87	158	12.53	21.57
17-Dec-20	44	78	143	12.1	31.84
18-Dec-20	49	91	161	11.28	20.77
23-Dec-20	52	86	157	19.52	29.82
24-Dec-20	50	94	172	15.26	24.62
02-Jan-21	49	90	184	15.85	27.68
04-Jan-21	52	87	174	16.1	34.53
08-Jan-21	48	84	171	18.36	22.14
09-Jan-21	43	76	159	17.22	32.51
15-Jan-21	44	73	236	20.65	34.34
16-Jan-21	50	83	224	23.06	29.28
21-Jan-21	45	77	216	20.74	41.65
22-Jan-21	51	89	211	19.96	33.1
30-Jan-21	46	78	153	14.9	29.67
01-Feb-21	50	84	150	21.92	31.38
04-Feb-21	48	75	146	15.96	23.53
05-Feb-21	53	85	169	22.58	37.87
06-Feb-21	50	89	174	13.33	26.08
12-Feb-21	43	66	137	20.56	31.2
13-Feb-21	46	78	145	18.91	46.06
18-Feb-21	50	85	154	26.24	44.01
19-Feb-21	49	81	171	21.3	39.53
27-Feb-21	52	86	173	21.47	29.49
01-Mar-21	49	84	192	18.25	20.46
05-Mar-21	43	77	170	25.02	22.39
06-Mar-21	36	70	184	22.29	38.62
15-Mar-21	51	82	180	12.44	23.98
16-Mar-21	53	90	212	16.16	25.42
19-Mar-21	49	78	190	11.19	38.05
20-Mar-21	43	84	224	15.69	29.49
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	94	236	26.24	46.06
Minimum	16	42	70	6.42	9.82
Average	35.03	74.58	137.30	13.50	23.77
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

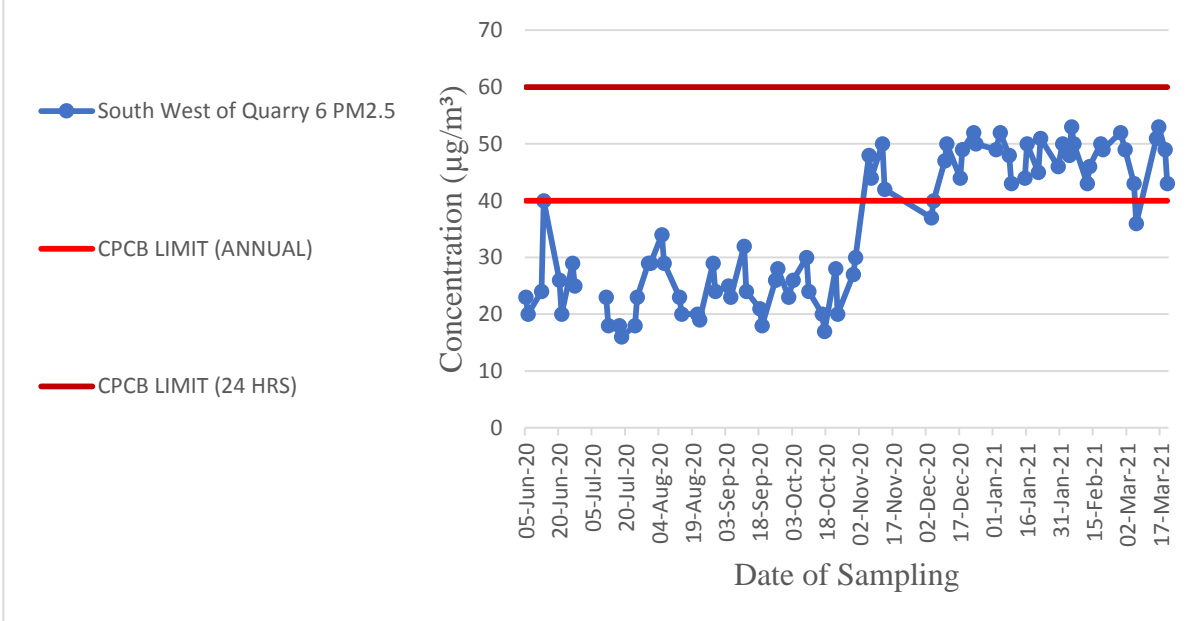
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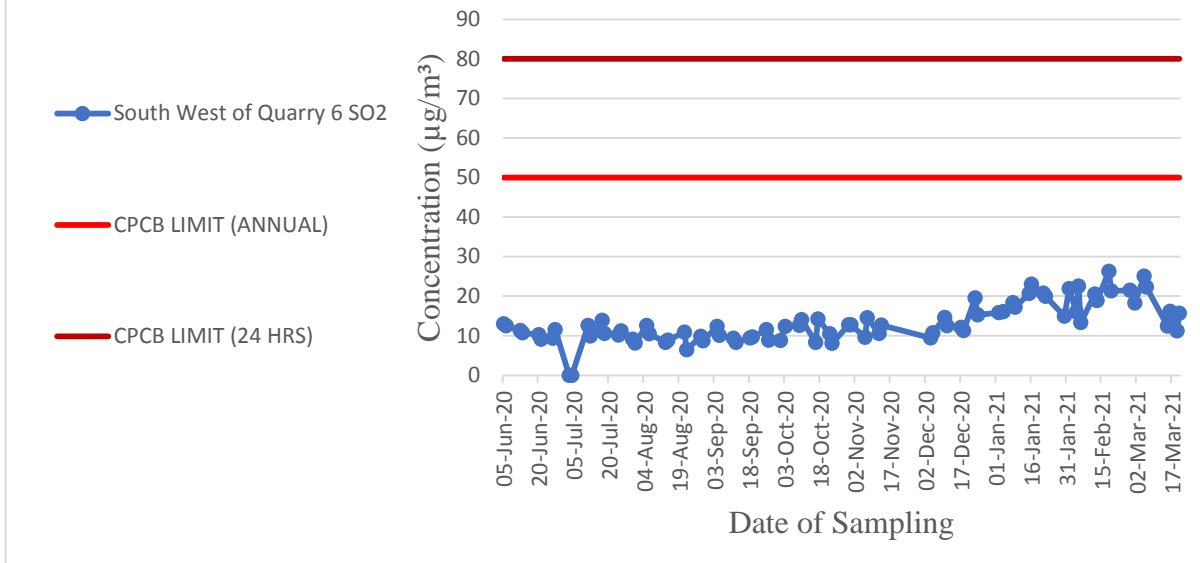
Graph Showing PM₁₀ for Lakhanpur OCP



Graph Showing PM_{2.5} for Lakhanpur OCP



Graph Showing SOx for Lakhanpur OCP



Graph Showing NOx for Lakhanpur OCP

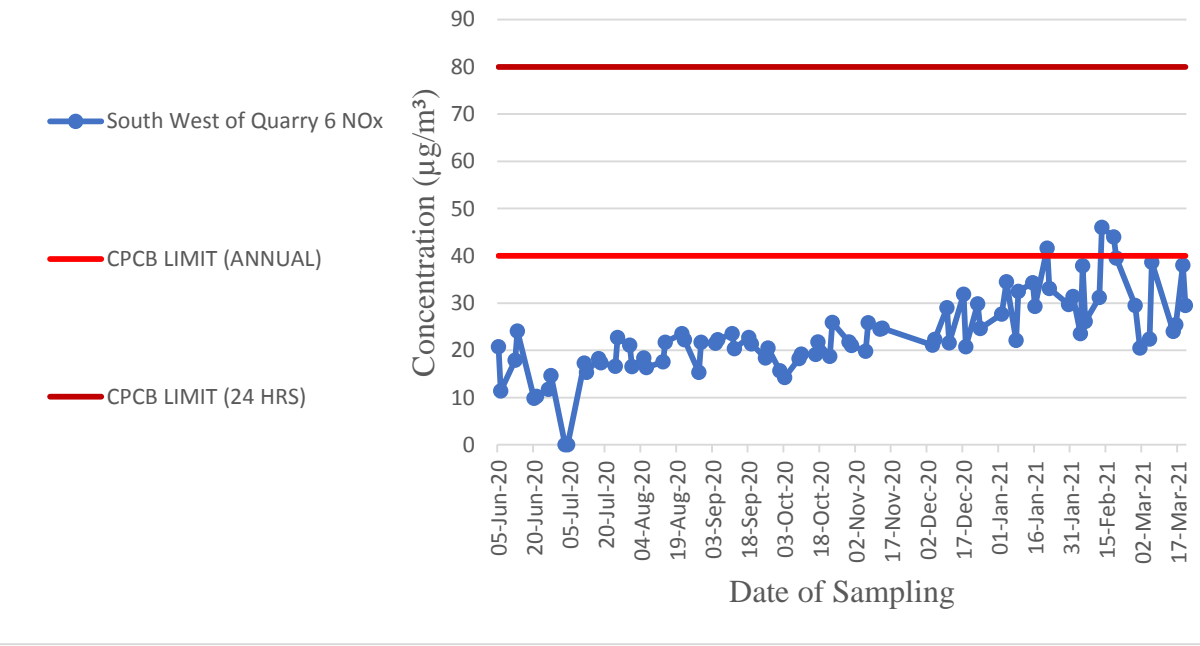


Table:32

Area: Lakhanpur

Project: Lilari OCP

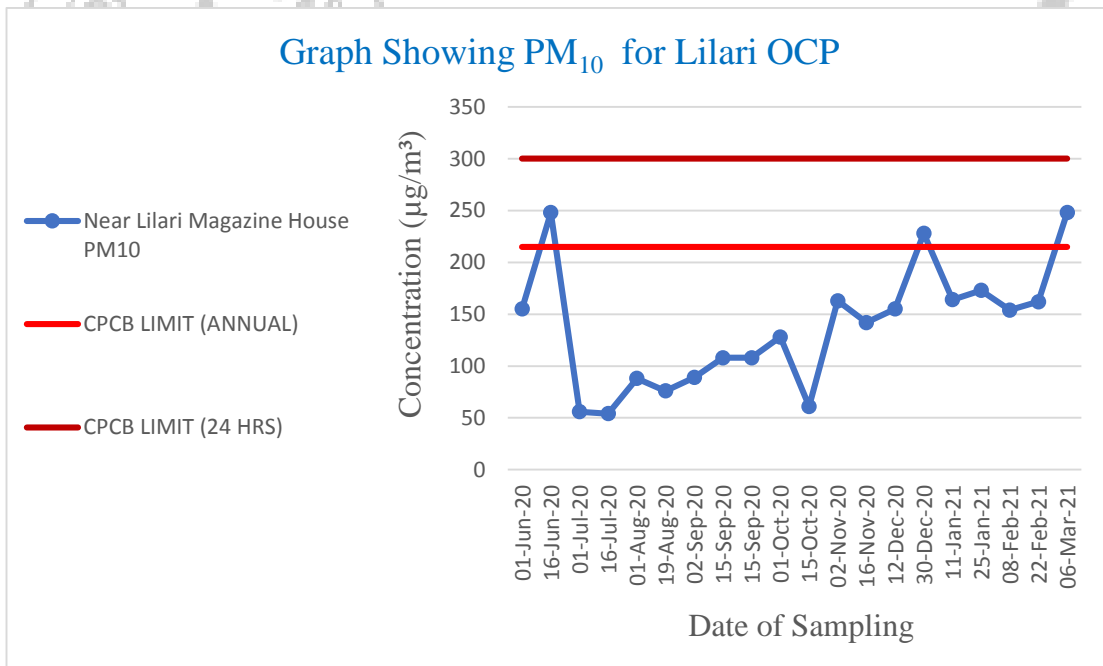
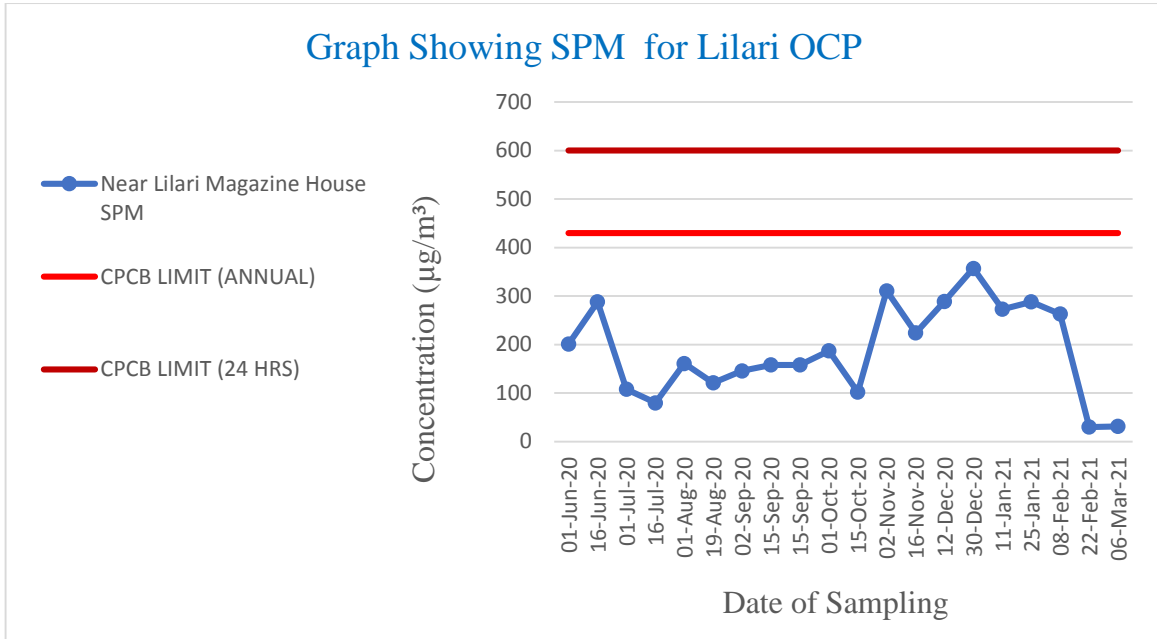
Monitoring Station: Near Lilari Magazine House

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

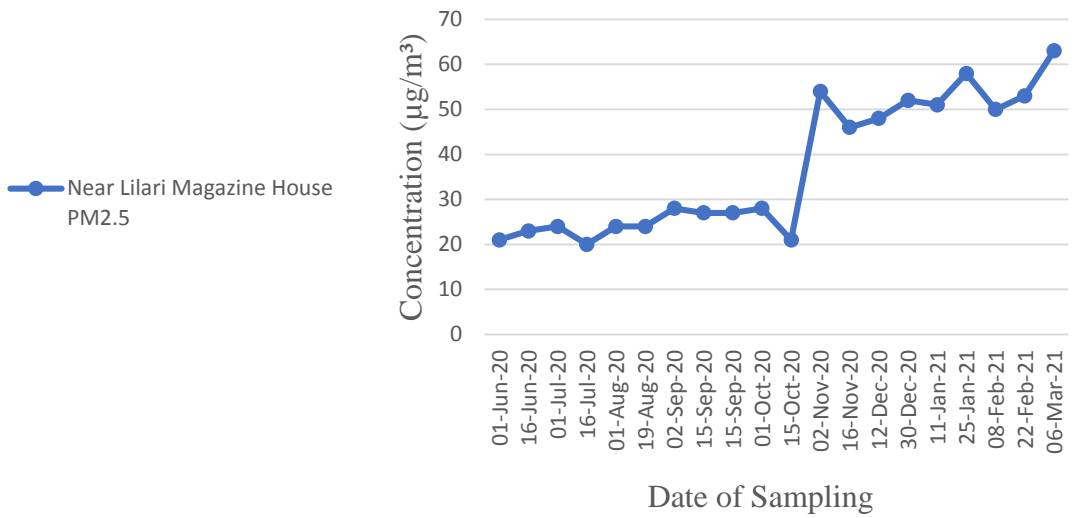
Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
01-Jun-20	201	155	21	12.12	26.6
16-Jun-20	288	248	23	12.5	11.83
01-Jul-20	108	56	24	8.82	15.22
16-Jul-20	80	54	20	10.36	22.7
01-Aug-20	161	88	24	14.36	18.27
19-Aug-20	121	76	24	9.21	24.77
02-Sep-20	146	89	28	9.77	21.65
15-Sep-20	158	108	27	8.39	20.63
15-Sep-20	158	108	27	8.39	20.63
01-Oct-20	187	128	28	9.86	17.53
15-Oct-20	102	61	21	12.53	19.96
02-Nov-20	311	163	54	10.66	18.53
16-Nov-20	224	142	46	10.24	20.44
12-Dec-20	289	155	48	19.57	28.47
30-Dec-20	357	228	52	10.9	23.63
11-Jan-21	273	164	51	16.23	28.33
25-Jan-21	288	173	58	24.34	40.02
08-Feb-21	263	154	50	24.73	39.89
22-Feb-21	30.09	162	53	273	20.48
06-Mar-21	31.36	248	63	333	25.56
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	357	248	63	333	40.02
Minimum	30.09	54	20	8.39	11.83
Average	188.82	138.00		41.95	23.26
Standard 24 hr	600	300		120	120

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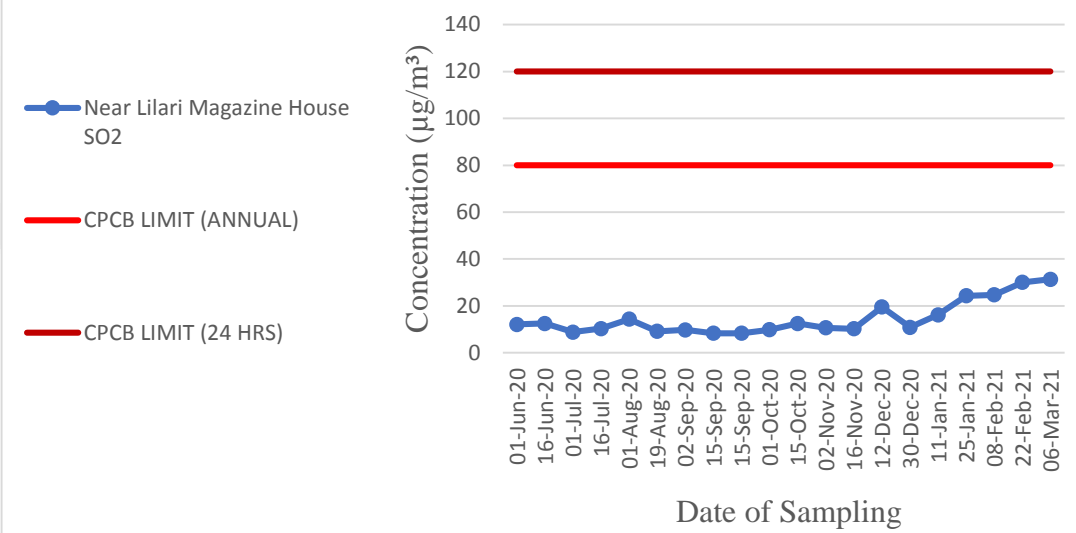
JOB NO.750001

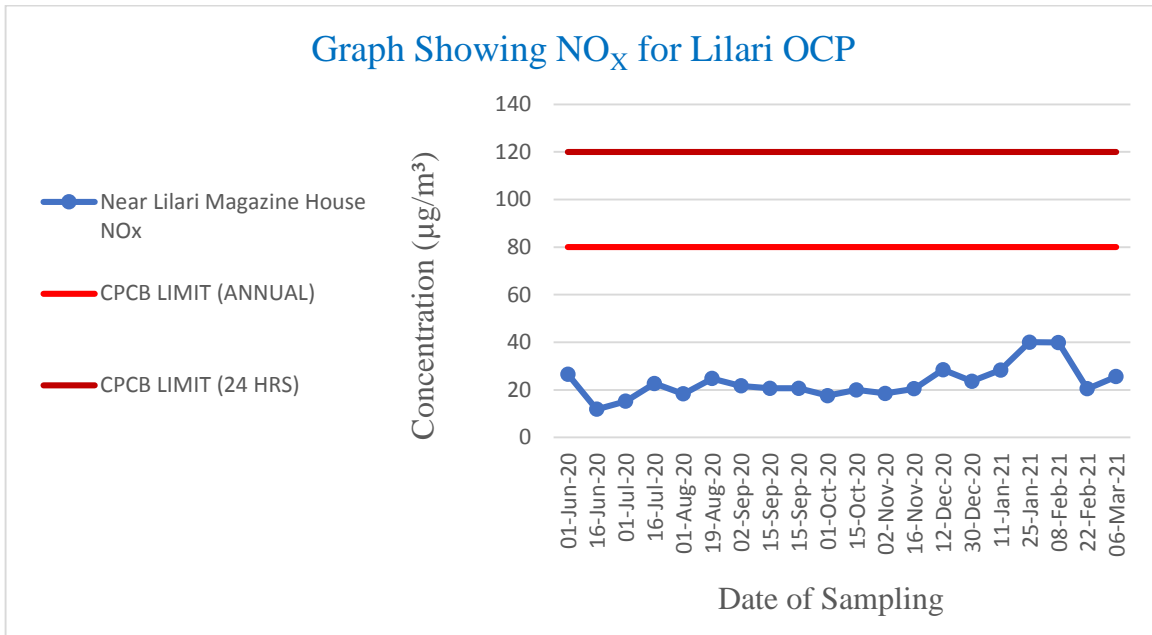


Graph Showing PM_{2.5} for Lilari OCP



Graph Showing SO_x for Lilari OCP





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Table:33

Area: Mahalaxmi**Project:** Basundhara (w) OCP**Monitoring Station:** CHP, CT RoadAll values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
02-Jun-20	180	100	17	12.85	17.08
19-Jun-20	84	56	32	15.34	17.2
03-Jul-20					
20-Jul-20	81	50	19	8.61	18
04-Aug-20	134	62	28	7.27	21.51
20-Aug-20	107	73	23	9.41	21.78
04-Sep-20	187	122	29	11.89	22.79
18-Sep-20	84	51	18	7.49	15.22
18-Sep-20	84	51	18	7.49	15.22
05-Oct-20	184	129	28	10.38	15.59
19-Oct-20	99	68	19	8.37	21.45
03-Nov-20	238	131	58	10.34	20.07
17-Nov-20	334	225	67	10.08	18.28
01-Dec-20	346	225	86	14.1	27.1
14-Dec-20	298	194	72	13.3	27.47
29-Dec-20	287	178	61	14.5	28.13
12-Jan-21	326	212	67	17.48	26.7
27-Jan-21	289	184	66	23.46	41.97
09-Feb-21	258	159	63	21.47	28.39
23-Feb-21	497	241	63	16.46	44
08-Mar-21	466	244	73	20.84	31.78
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	497	244	86	23.46	44
Minimum	81	50	17	7.27	15.22
Average	228.15	137.75	45.35	13.06	23.99
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:34

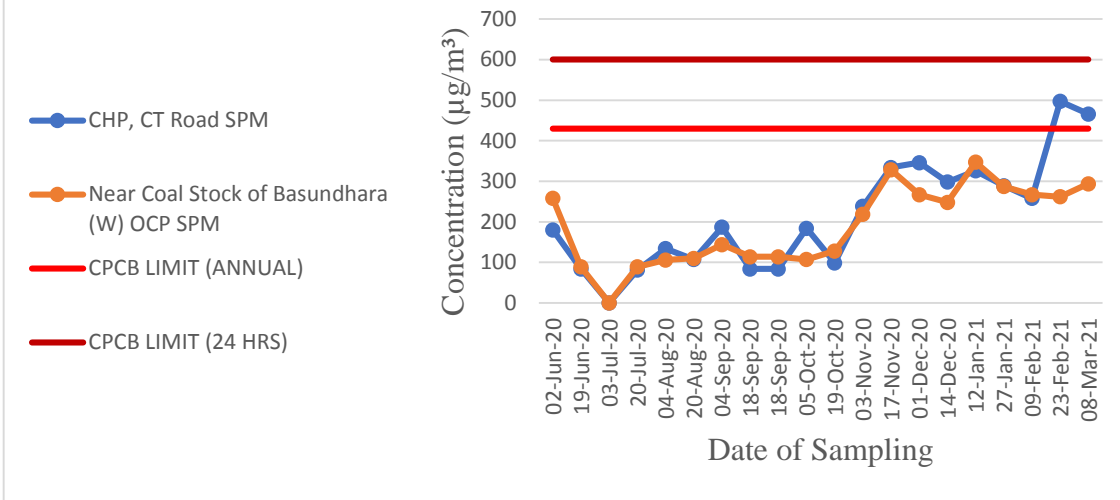
Area: Mahalaxmi**Project:** Basundhara (w) OCP**Monitoring Station:** Near Coal Stock of Basundhara (W) OCPAll values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
04-Jun-20	258	171	28	13.42	17.57
19-Jun-20	89	52	28	8.64	11.56
20-Jul-20	89	51	30	10.13	22.69
05-Aug-20	106	58	25	9.54	19.87
20-Aug-20	110	77	33	9.66	26.48
04-Sep-20	144	85	25	9.4	25.45
19-Sep-20	114	69	20	10.65	25.28
19-Sep-20	114	69	20	10.65	25.28
03-Oct-20	107	65	24	12.63	23.36
17-Oct-20	128	84	30	8.3	16.3
02-Nov-20	219	117	56	11.2	20.32
16-Nov-20	328	218	70	13.28	27.86
30-Nov-20	267	148	62	12.79	23.63
12-Dec-20	248	136	58	20.93	33.96
11-Jan-21	347	222	60	12.54	43.79
25-Jan-21	287	175	56	24.19	44.33
08-Feb-21	267	189	58	19.81	37.76
22-Feb-21	262	142	53	20.58	26.81
06-Mar-21	294	159	64	21.4	31.2
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	347	222	70	24.19	44.33
Minimum	89	51	20	8.3	11.56
Average	198.84	120.37	42.11	13.67	26.50
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

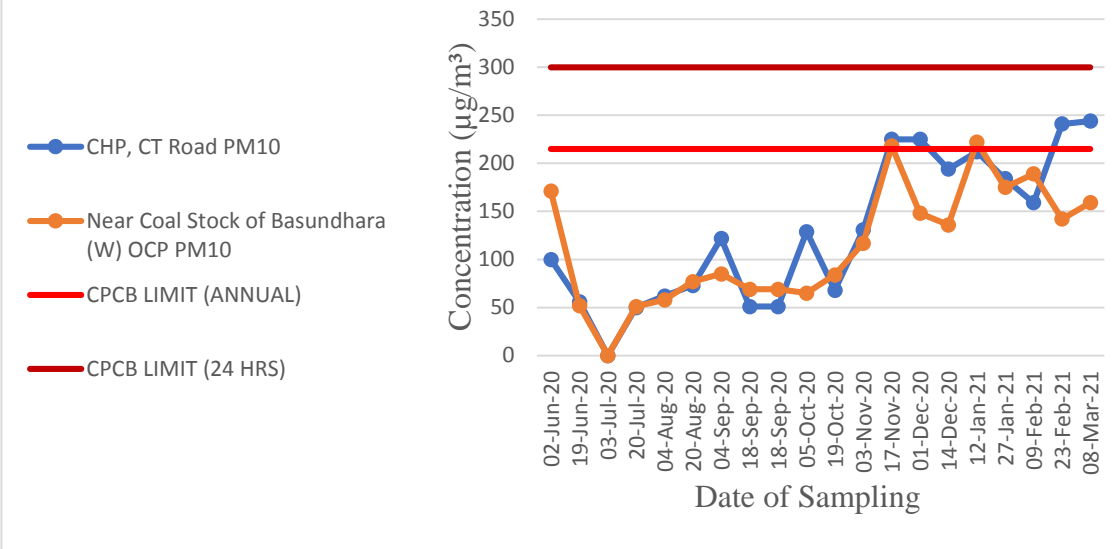
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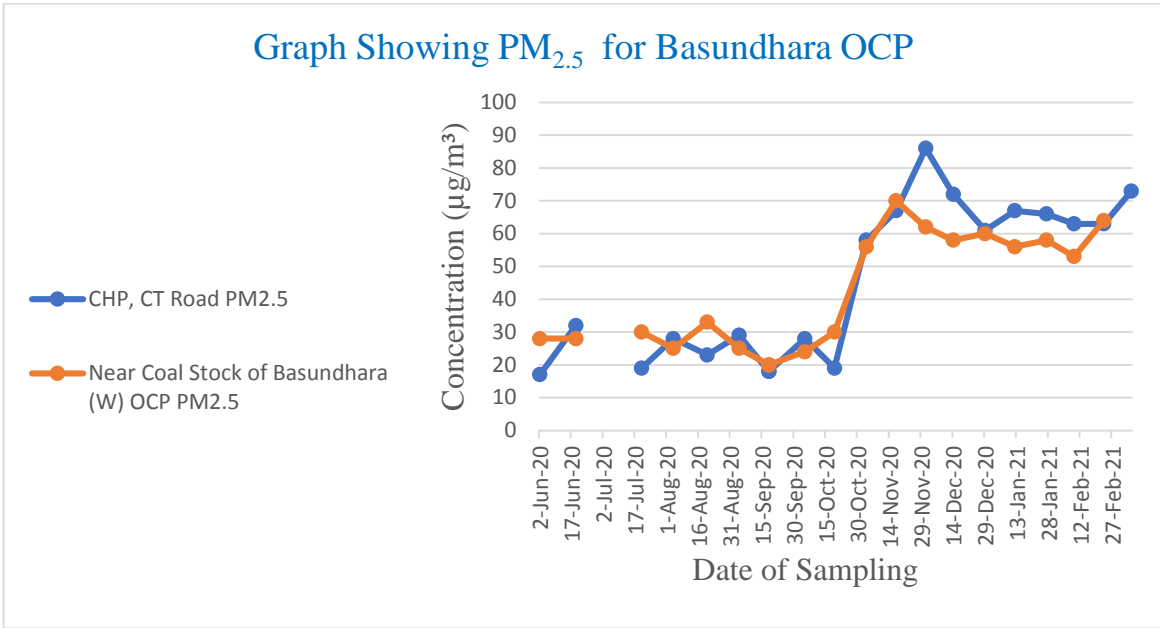
Graph Showing SPM for Basundhara OCP



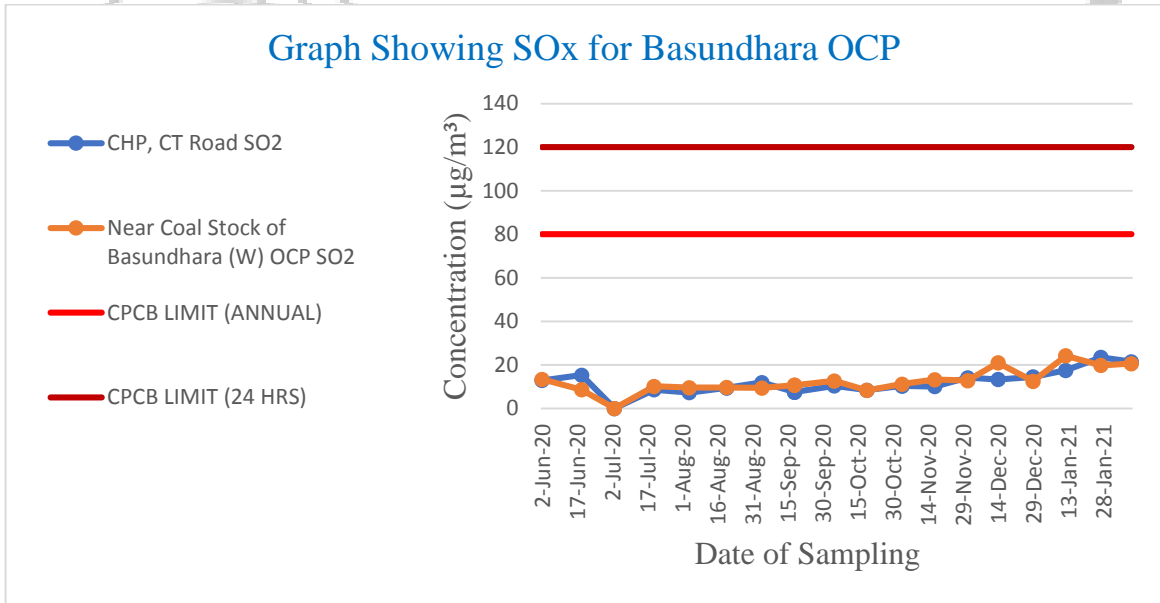
Graph Showing PM₁₀ for Basundhara OCP

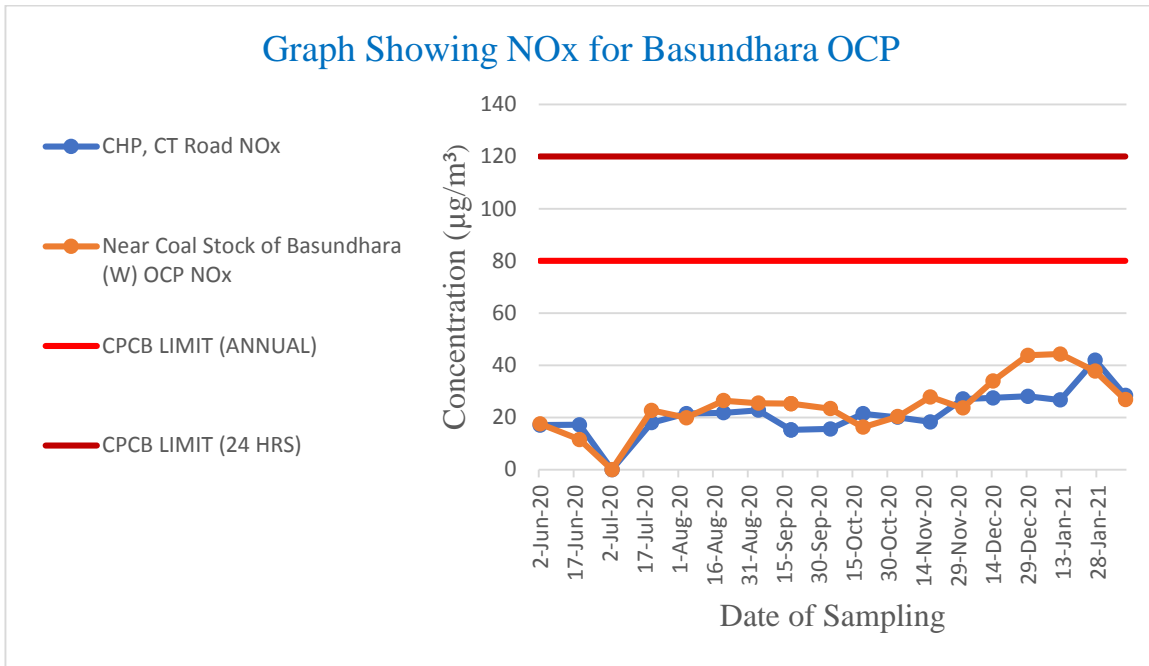


Graph Showing PM_{2.5} for Basundhara OCP



Graph Showing SO_x for Basundhara OCP





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Table:35

Area: Mahalaxmi

Project: Basundhara (w) OCP

Monitoring Station: North of the Sardega Railway Siding

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
03-Jun-20	157	114	55	11.27	10.72
18-Jun-20	54	45	26	8.56	14.87
02-Jul-20					
16-Jul-20	85	66	23	15.23	23.09
04-Aug-20	261	180	27	11.18	17.63
17-Aug-20	127	78	24	7.71	23.42
01-Sep-20	220	156	31	8.74	11.55
17-Sep-20	111	80	21	8.88	21.83
05-Oct-20	118	80	26	11.69	18.43
19-Oct-20	112	75	23	8.32	17.76
03-Nov-20	249	159	69	9.64	19.86
17-Nov-20	239	188	61	9.91	24.72
01-Dec-20	289	177	64	11.96	25.03
14-Dec-20	261	147	57	18.35	40.93
12-Jan-21	337	209	71	18.36	30.45
27-Jan-21	392	243	68	25.24	33.54
09-Feb-21	314	188	58	21.98	33.86
23-Feb-21	235	138	59	17.34	21.06
08-Mar-21	245	128	56	14.27	31.69
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	392	243	71	25.24	40.93
Minimum	54	45	21	7.71	10.72
Average	211.44	136.17	45.50	13.26	23.36
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:36

Area: Mahalaxmi

Project: Basundhara (w) OCP

Monitoring Station: Sarangijharia Community Centre

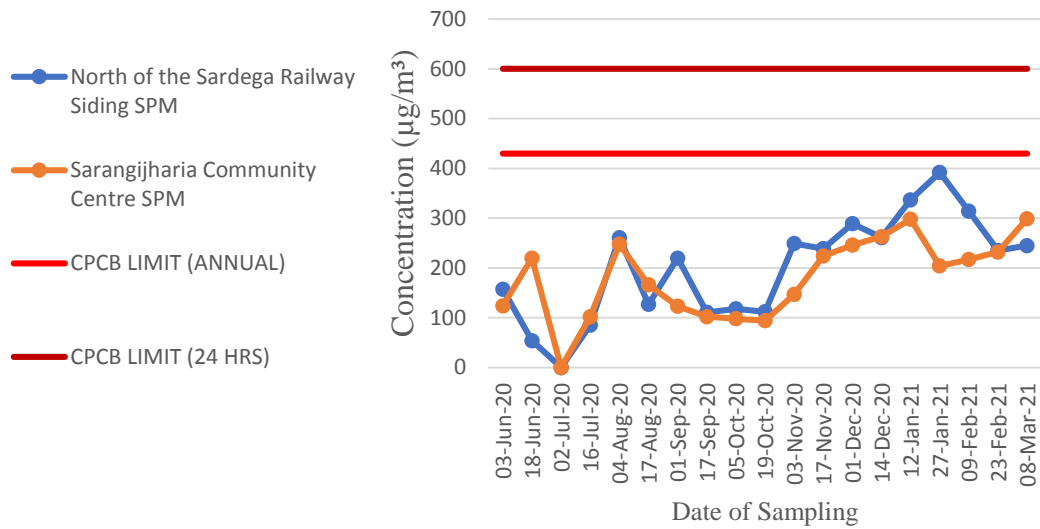
All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM10	PM2.5	SO2	NOx
03-Jun-20	124	73	22	10.86	12.14
18-Jun-20	220	150	20	10.17	15.55
16-Jul-20	102	78	24	8.46	16.91
04-Aug-20	248	164	19	7.34	15.56
17-Aug-20	166	107	31	10.17	16.17
01-Sep-20	123	81	22	10.18	16.12
17-Sep-20	102	72	19	11.47	21.51
05-Oct-20	98	69	22	13.54	21.78
17-Oct-20	94	58	18	10.42	20.75
02-Nov-20	147	92	41	10.3	21.41
16-Nov-20	224	148	44	10.3	17.14
30-Nov-20	246	136	54	10.26	32.64
12-Dec-20	263	141	51	13.73	37.55
28-Dec-20	367	229	51	15.79	25.73
11-Jan-21	298	181	45	14.74	42.88
25-Jan-21	204	122	46	20	42.33
08-Feb-21	217	129	50	16.47	43.81
22-Feb-21	232	126	44	20.35	28.26
06-Mar-21	299	181	48	23.21	27.78
Basic Stats	SPM	PM10	PM2.5	SO2	NOx
Maximum	367	229	54	23.21	43.81
Minimum	94	58	18	7.34	12.14
Average	198.63	123.00	35.32	13.04	25.05
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

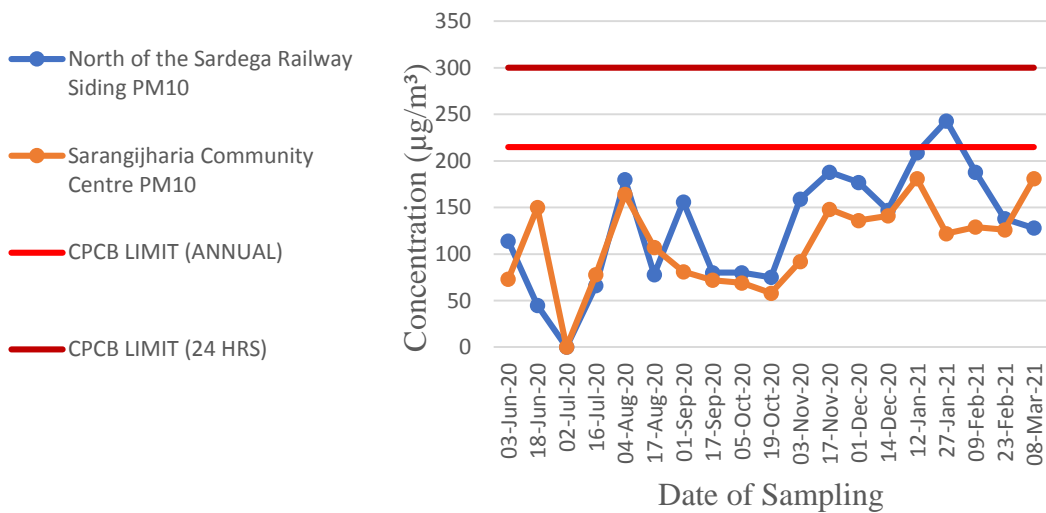
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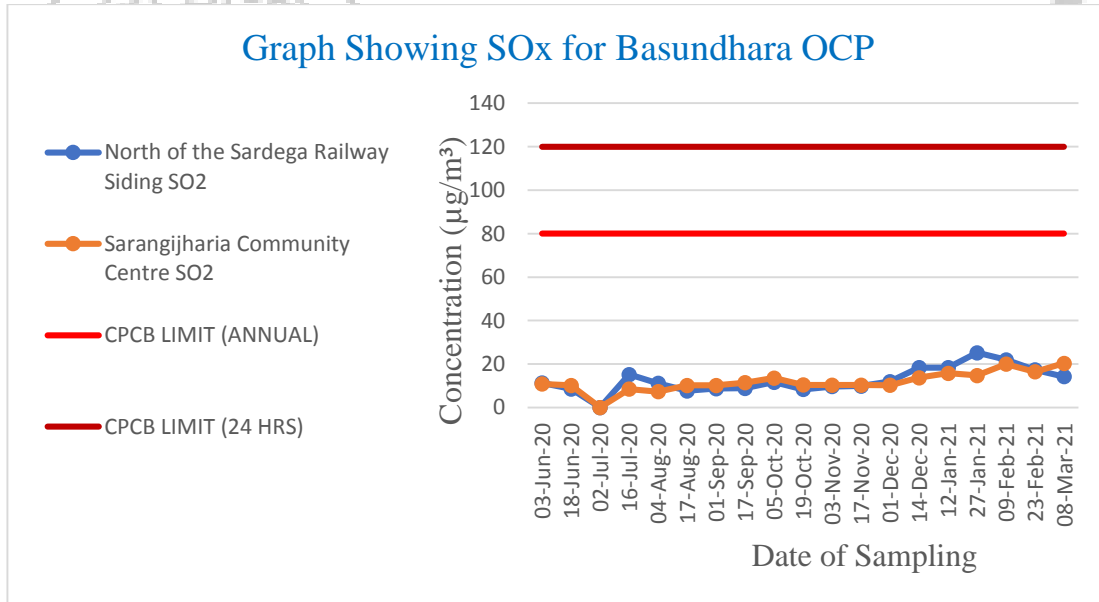
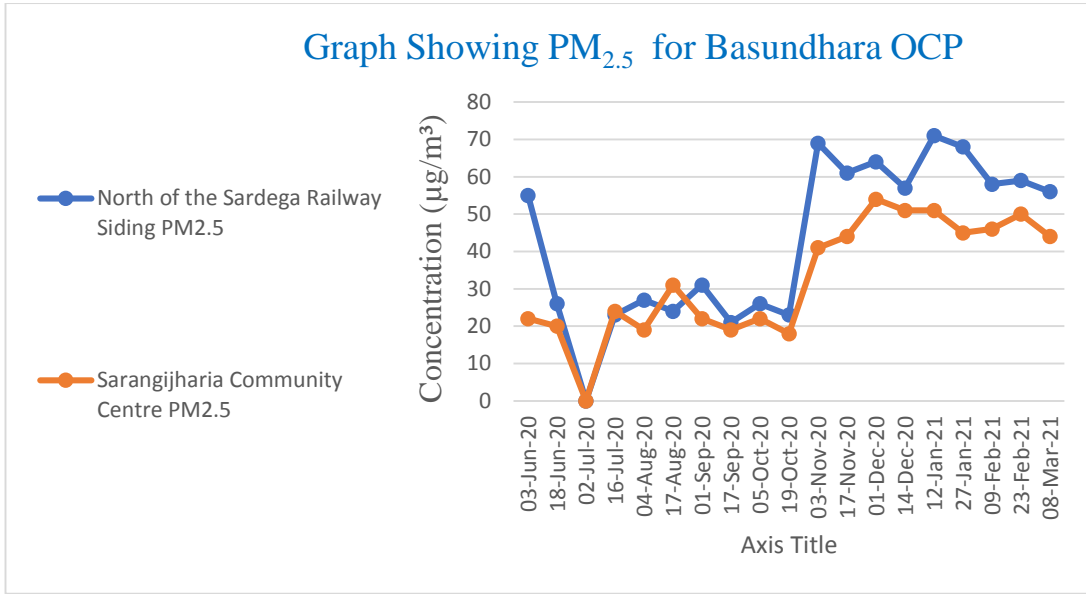
JOB NO.750001

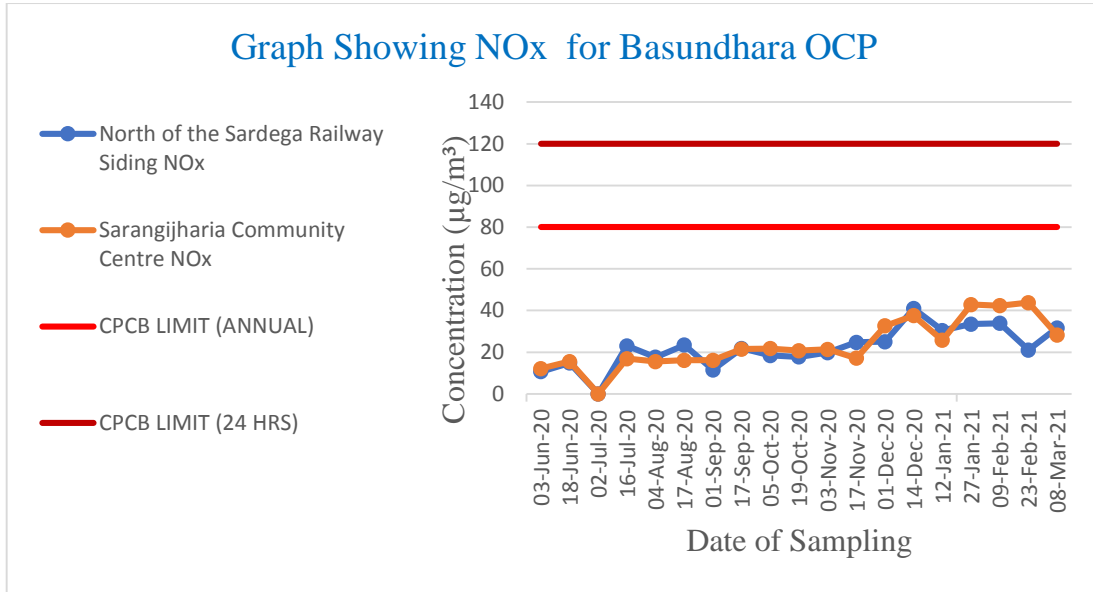
Graph Showing SPM for Basundhara OCP



Graph Showing PM₁₀ for Basundhara OCP







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Table:37

Area: Mahalaxmi**Project:** Basundhara (w) OCP**Monitoring Station:** Near Internal Dump and CT Road of Basundhara/GopalpurAll values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
01-Jun-20	28	84	147	13.19	23.66
02-Jun-20	32	91	138	12.15	26.24
08-Jun-20	40	76	129	11.8	26.24
09-Jun-20	23	83	120	10.76	19.78
16-Jun-20	28	84	99	10.29	11.49
17-Jun-20	21	86	133	10.4	12.55
22-Jun-20	38	95	142	10.4	12.55
23-Jun-20	32	81	111	10.08	11.74
30-Jun-20	31	78	94	13.18	17.63
01-Jul-20	23	55	85	7.66	14.68
07-Jul-20	25	66	90	7.13	15.37
08-Jul-20	29	78	116	10.13	15.89
14-Jul-20	22	55	90	7.76	12.75
15-Jul-20	26	43	78	12.97	17.9
21-Jul-20	30	91	130	10.79	32.34
22-Jul-20	21	77	105	11.49	21.35
27-Jul-20	23	88	119	7.98	17.05
28-Jul-20	20	71	96	8.76	15.15
03-Aug-20	19	71	113	8.6	16.33
04-Aug-20	23	95	138	10.41	15.71
10-Aug-20	29	72	109	9.81	13.93
11-Aug-20	22	75	118	8.17	19.84
18-Aug-20	28	86	127	12.05	20.07
19-Aug-20	29	78	106	7.21	19.13
25-Aug-20	33	91	133	11.74	16.01
26-Aug-20	27	70	113	8.48	15.38
02-Sep-20	32	90	142	9.51	18.64
03-Sep-20	24	72	113	11.76	25.4
07-Sep-20	38	88	136	9.44	16.44
08-Sep-20	44	93	132	7.72	16.43
15-Sep-20	26	80	113	10.98	17.76
16-Sep-20	21	58	91	8.22	23.06
21-Sep-20	25	62	96	10.84	18.03
22-Sep-20	28	88	118	9.68	16.05
29-Sep-20	28	92	133	7.02	22.92
30-Sep-20	30	90	126	11.36	14.32
06-Oct-20	30	88	121	11.05	18.86
07-Oct-20	28	82	134	12.57	15.9
14-Oct-20	23	78	118	14.21	18.4
15-Oct-20	28	91	148	11.28	16.05
19-Oct-20	24	65	102	8.32	16.8
20-Oct-20	31	70	118	11.99	14.88

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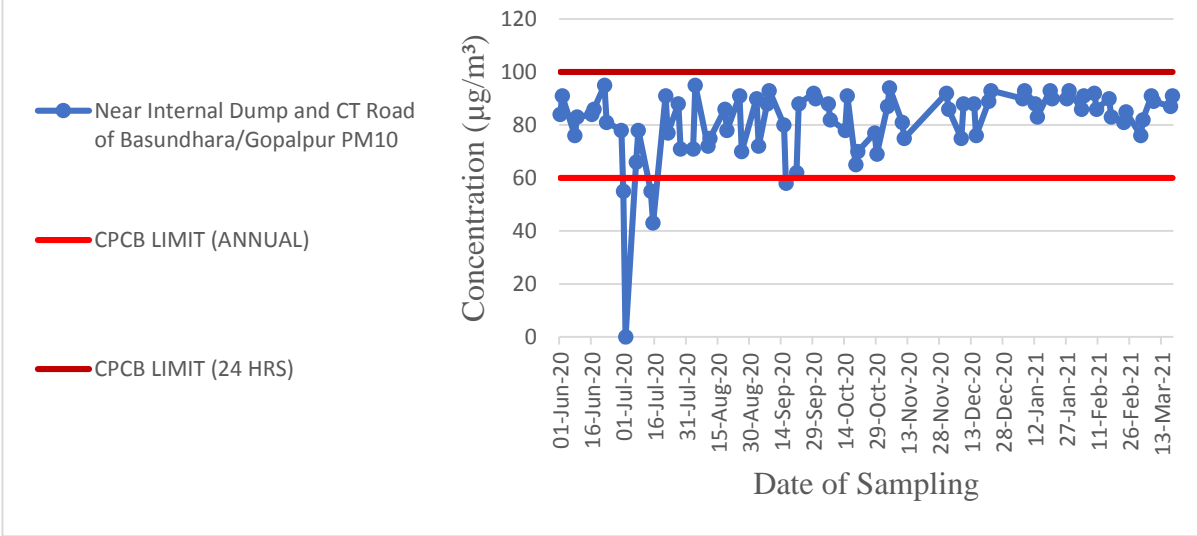
JOB NO.750001

28-Oct-20	27	77	122	10.95	18.7
29-Oct-20	22	69	110	7.03	16.95
03-Nov-20	46	87	179	12.53	19.54
04-Nov-20	51	94	174	10.1	24.43
10-Nov-20	48	81	155	9.14	22.44
11-Nov-20	41	75	160	9.04	27.35
01-Dec-20	53	92	168	15.42	20.91
02-Dec-20	48	86	154	11.97	23.89
08-Dec-20	39	75	144	12.71	25.61
09-Dec-20	54	88	174	13.65	23.46
14-Dec-20	50	88	144	14.1	24.9
15-Dec-20	45	76	133	16.35	25.79
21-Dec-20	51	89	148	13.36	34.9
22-Dec-20	54	93	165	13.97	36.27
29-Dec-20	43	93	159	17.62	38.46
30-Dec-20	46	87	147	14.09	23.06
06-Jan-21	52	90	169	17.33	30.26
07-Jan-21	55	93	187	18.03	25.45
12-Jan-21	52	88	208	20.52	31.92
13-Jan-21	48	83	213	28.16	34.42
19-Jan-21	53	93	206	22	21.51
20-Jan-21	50	90	227	17.52	25.27
27-Jan-21	50	90	167	18.64	40.72
28-Jan-21	48	93	196	22.34	35.08
03-Feb-21	51	86	173	20.4	22.59
04-Feb-21	52	91	170	22.6	24.84
09-Feb-21	53	92	212	17.45	28.56
10-Feb-21	49	86	227	12.98	37.55
16-Feb-21	43	90	205	14.88	40.73
17-Feb-21	50	83	216	22.26	35.89
23-Feb-21	48	81	187	14.34	37.22
24-Feb-21	50	85	175	16.08	29.26
03-Mar-21	48	76	189	13.99	22.5
04-Mar-21	49	82	169	17.12	25.32
08-Mar-21	50	91	188	15.67	20.59
09-Mar-21	52	89	197	11.92	31.68
17-Mar-21	52	87	176	17.17	24.33
18-Mar-21	51	91	210	12.62	27.51
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	55	95	227	28.16	40.73
Minimum	19	43	78	7.02	11.49
Average	37.33	82.34	145.29	12.82	22.63
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

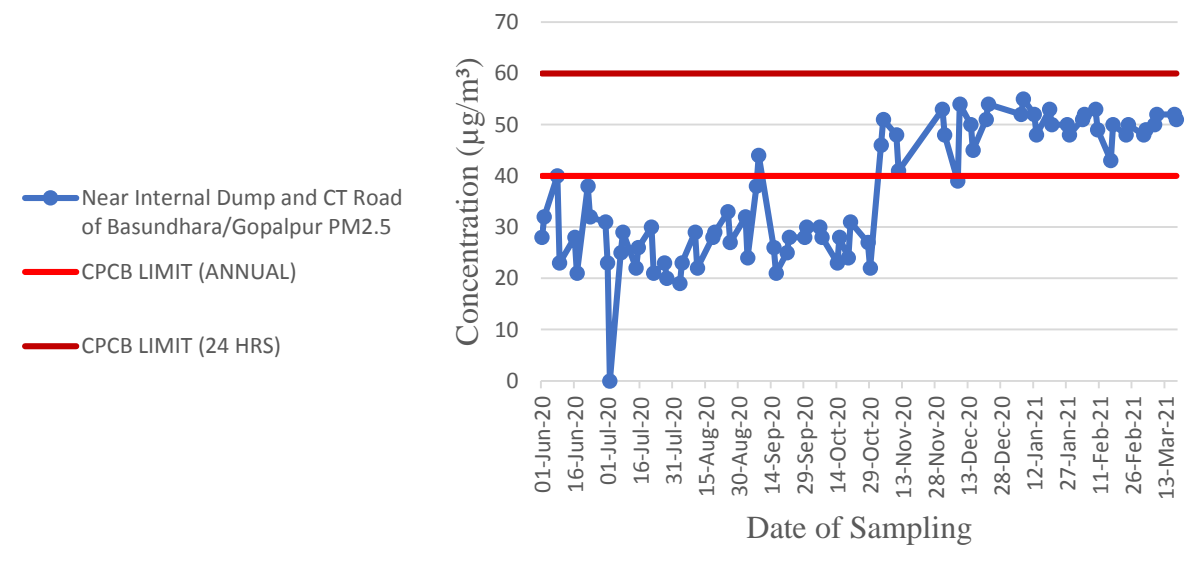
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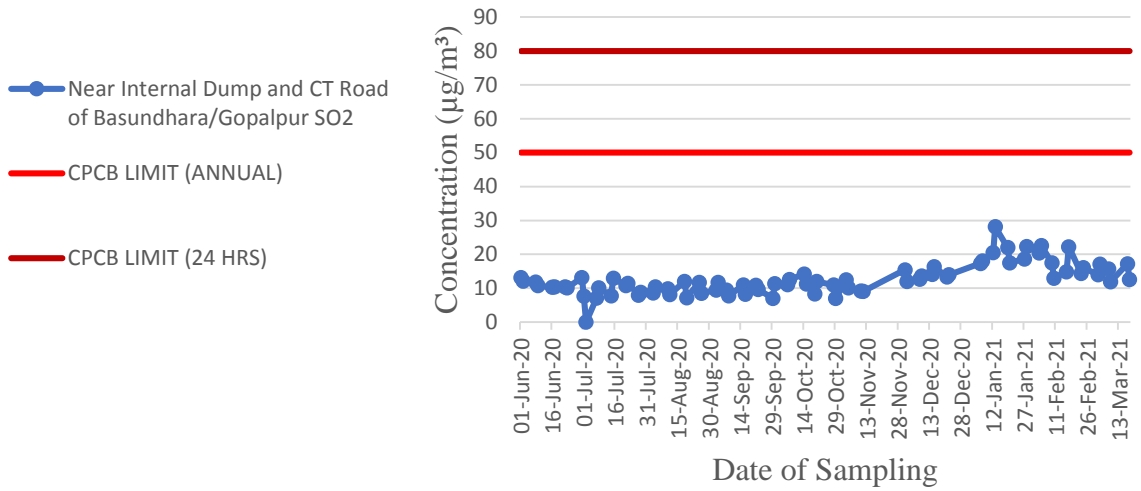
Graph Showing PM₁₀ for Basundhara OCP



Graph Showing PM_{2.5} for Basundhara OCP



Graph Showing SOx for Basundhara OCP



Graph Showing NOx for Basundhara OCP

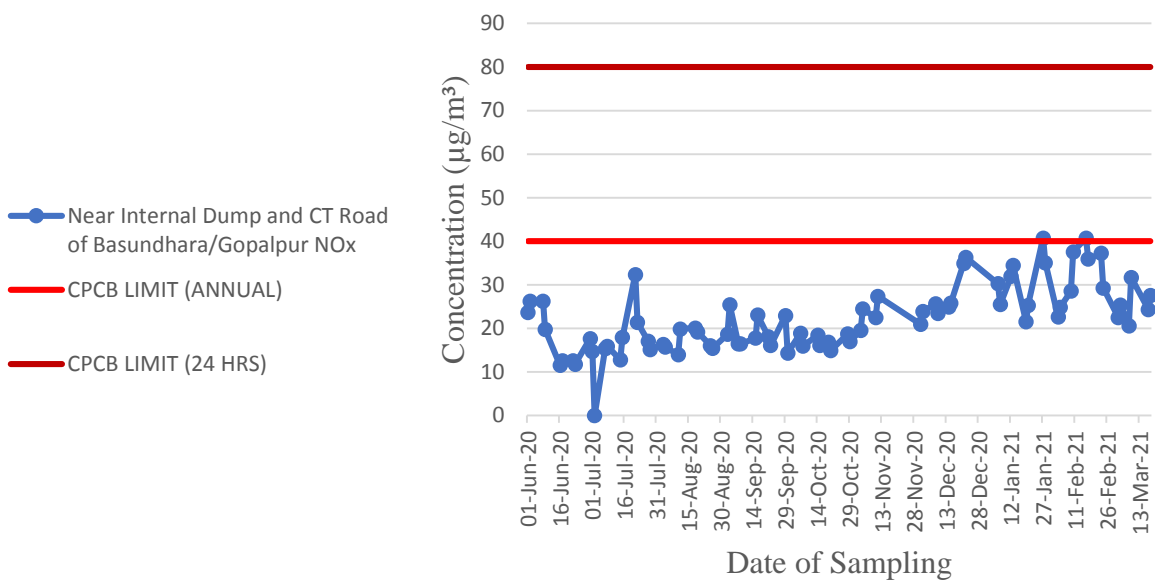


Table:38

Area: Basundhara

Project: Garjanbahal OCP

Monitoring Station: Near Coal Sampling Lab

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
10-Jun-20	327	258	31	12.3	24.63
24-Jun-20	73	55	35	8.41	11.01
09-Jul-20	106	66	22	10.35	17.85
23-Jul-20	82	53	16	10.72	15.21
11-Aug-20	105	61	24	5.59	18.02
27-Aug-20	109	74	20	10.03	23.48
08-Sep-20	242	181	30	9.19	16.01
25-Sep-20	256	178	25	7.8	26.31
25-Sep-20	256	178	25	7.8	26.31
12-Oct-20	244	172	35	12.64	24.27
27-Oct-20	136	89	38	9.03	21.19
09-Nov-20	182	110	46	10.23	17.71
23-Nov-20	178	124	48	13.88	23.94
07-Dec-20	273	175	68	8.49	31.03
19-Dec-20	217	133	56	15.24	32.24
05-Jan-21	219	147	57	22.28	27.46
18-Jan-21	275	165	46	16.94	26.62
02-Feb-21	225	135	42	18.81	30.87
15-Feb-21	255	144	47	15.31	29.15
02-Mar-21	291	185	56	34.63	24.28
12-Mar-21	298	182	50	28.61	23.13
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	298	185	68	34.63	32.24
Minimum	82	53	16	5.59	15.21
Average	207.84	134.32	39.53	14.08	23.95
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:39

Area: Basundhara

Project: Garjanbahal OCP

Monitoring Station: North West of Coalface (Camp Office)

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
10-Jun-20	244	187	58	10.44	25.93
24-Jun-20	96	68	31	12.3	15.3
09-Jul-20	140	65	27	10.01	13.81
23-Jul-20	95	61	19	8.46	19.45
10-Aug-20	233	176	25	6.81	15.76
27-Aug-20	159	85	24	9.01	21.59
11-Sep-20	212	133	25	8.67	19.21
25-Sep-20	119	81	24	9.13	24.65
25-Sep-20	119	81	24	9.13	24.65
12-Oct-20	193	134	29	9.16	18.49
27-Oct-20	112	74	29	11.83	18.75
09-Nov-20	137	209	72	11.26	19.35
23-Nov-20	341	205	76	11.26	19.35
07-Dec-20	282	172	85	11.8	29.43
19-Dec-20	312	199	78	11.78	36.17
05-Jan-21	179	95	46	16.56	34.97
18-Jan-21	218	129	52	21.06	40.86
02-Feb-21	219	134	59	16.12	26.29
15-Feb-21	231	146	51	19.37	30.98
02-Mar-21	274	163	54	21.8	20.3
12-Mar-21	245	148	58	21.09	13.52
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	341	209	85	21.8	40.86
Minimum	95	61	19	6.81	13.52
Average	201.05	131.05	45.11	12.86	23.56
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:40

Area: Basundhara

Project: Garjanbahal OCP

Monitoring Station: 220 kV Substation

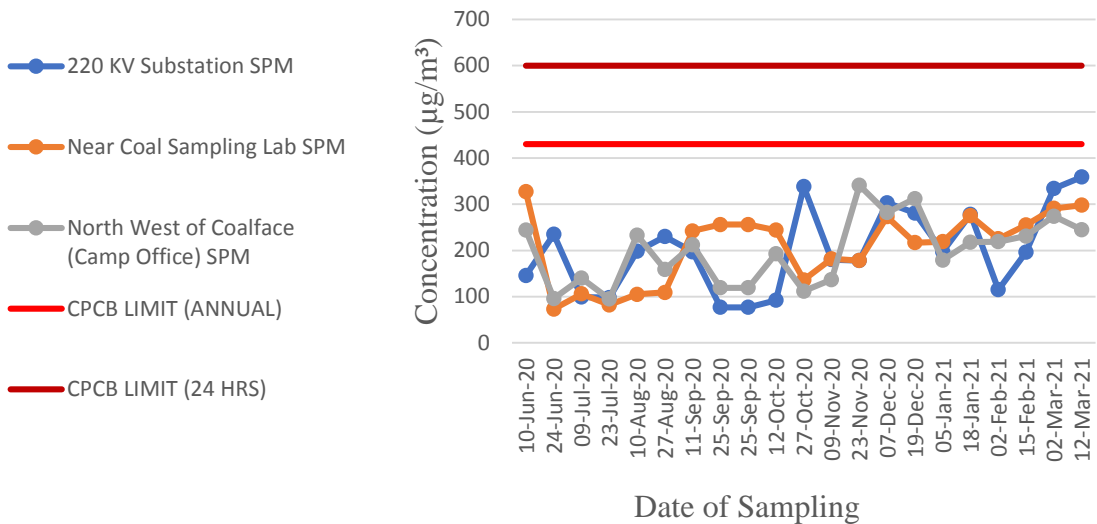
All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
10-Jun-20	146	100	19	11.08	25.43
24-Jun-20	235	196	28	11.19	11.7
09-Jul-20	99	67	21	8.3	16.84
23-Jul-20	98	77	18	5.9	15.76
10-Aug-20	198	139	19	8.07	14.01
27-Aug-20	230	165	34	6.62	20.28
11-Sep-20	197	139	23	6.44	17.16
25-Sep-20	77	52	18	6.23	15.91
25-Sep-20	77	52	18	6.23	15.91
12-Oct-20	92	68	18	8.62	12.87
27-Oct-20	338	214	27	9.46	21.12
09-Nov-20	180	106	44	10.4	20.39
23-Nov-20	178	124	48	13.88	23.94
07-Dec-20	303	185	73	9.33	20.23
19-Dec-20	281	167	63	13.94	35.4
05-Jan-21	197	126	50	13.45	21.47
18-Jan-21	278	184	68	14.12	25.34
02-Feb-21	115	66	30	19.93	20.97
15-Feb-21	196	137	44	17.05	29.35
02-Mar-21	334	215	56	25.64	15.08
12-Mar-21	359	239	50	24.92	14.65
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	359	239	73	25.64	35.4
Minimum	77	52	18	5.9	12.87
Average	201.42	132.74	38.00	12.03	19.83
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

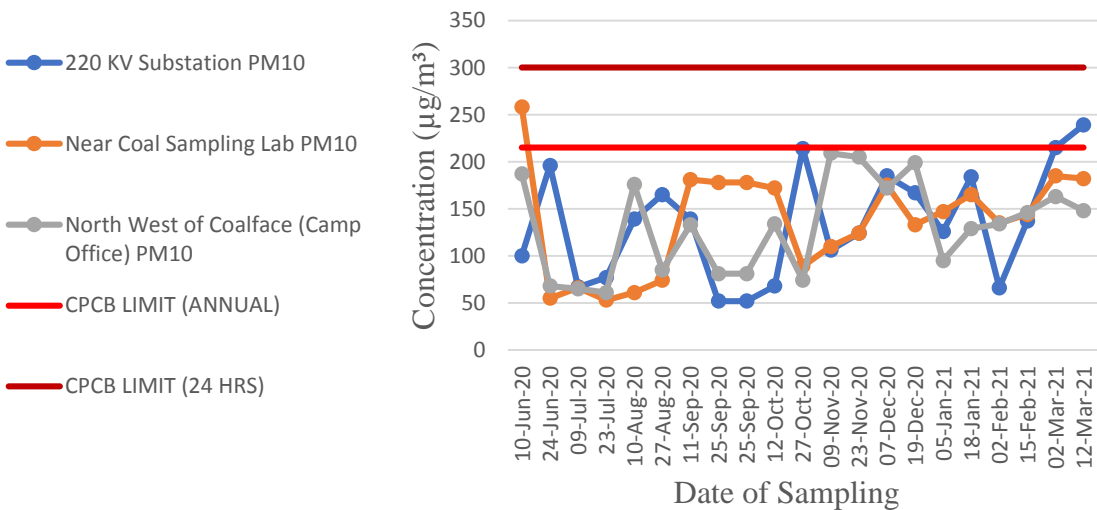
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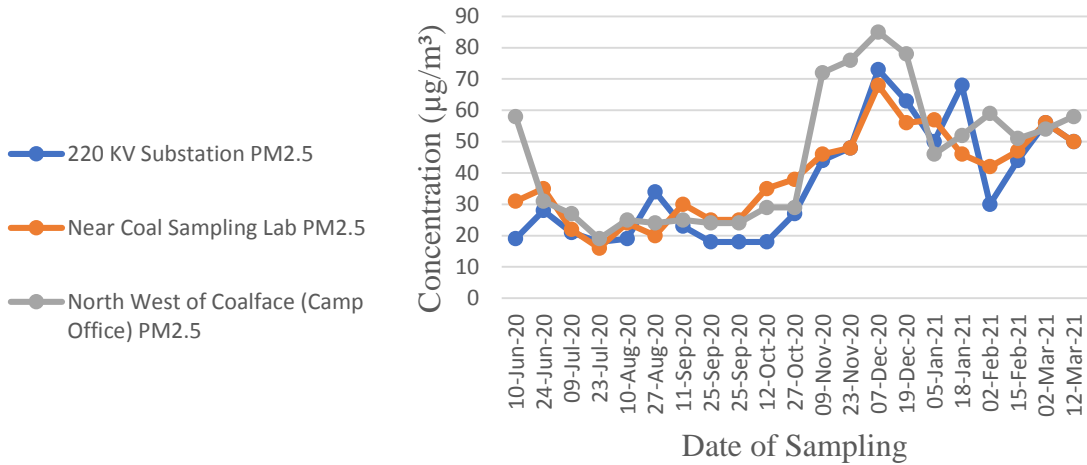
Graph Showing SPM for Garjanbahal OCP



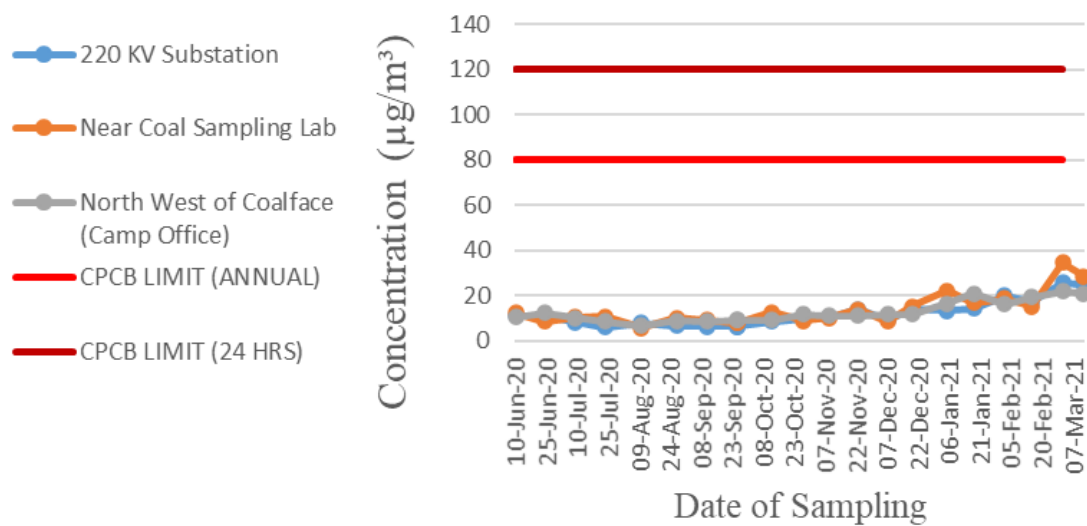
Graph Showing PM₁₀ for Garjanbahal OCP



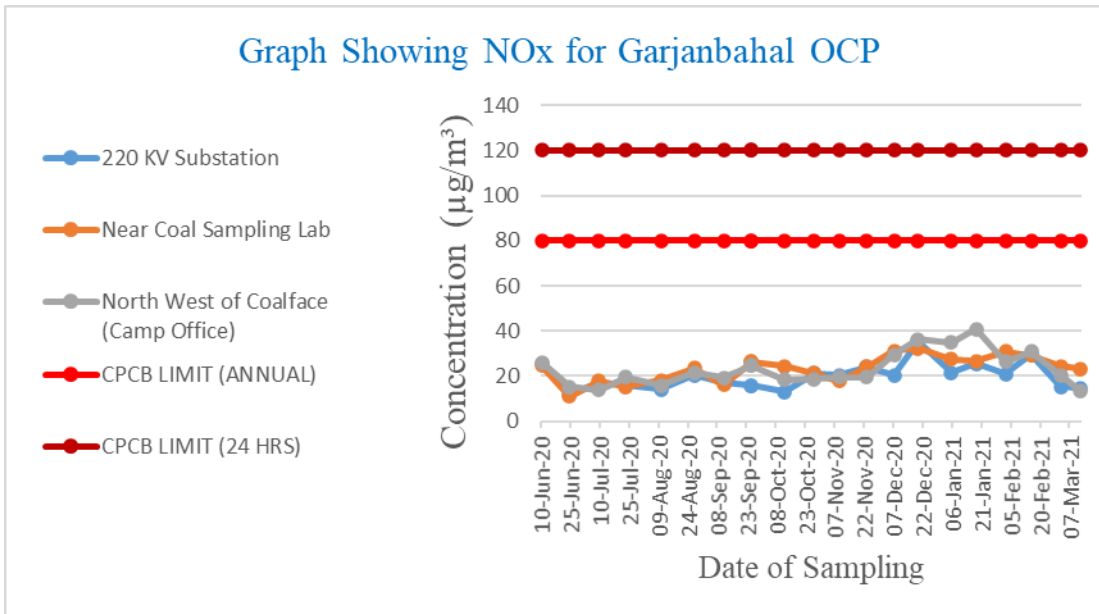
Graph Showing PM_{2.5} for Garjanbahal OCP



Graph Showing SO_x for Garjanbahal OCP



Graph Showing NOx for Garjanbahal OCP



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JOB NO.750001

Table:41

Area: Basundhara

Project: Garjanbahal OCP

Monitoring Station: Kushra Village

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
01-Jun-20	22	87	118	10.22	29.52
02-Jun-20	21	90	158	12.29	22.11
08-Jun-20	43	62	94	10.23	31.03
09-Jun-20	37	86	148	12.06	22.8
16-Jun-20	29	82	128	15.04	18.08
17-Jun-20	27	69	95	15.04	18.08
22-Jun-20	25	43	61	9.84	16.56
23-Jun-20	34	49	64	11.81	19.87
30-Jun-20	21	44	55	10.05	16.91
01-Jul-20	26	57	132	9.23	17.7
07-Jul-20	21	74	127	9.73	16.79
08-Jul-20	20	82	138	11.9	17.85
14-Jul-20	21	64	99	11.37	17.83
15-Jul-20	22	59	82	12.62	16.74
21-Jul-20	23	70	110	14.16	21.32
22-Jul-20	21	56	91	8.96	19.13
27-Jul-20	35	86	126	10.38	23.24
28-Jul-20	36	74	117	11.15	25.63
03-Aug-20	22	62	103	10.6	22.99
04-Aug-20	26	50	92	11.11	17.67
10-Aug-20	21	78	127	7.68	23.69
11-Aug-20	25	56	113	7.74	19.44
18-Aug-20	27	60	106	12.04	20.9
19-Aug-20	18	83	134	8.44	18.5
25-Aug-20	26	77	110	8.67	19.48
26-Aug-20	28	61	92	12.75	23.13
02-Sep-20	28	89	128	10.27	21.13
03-Sep-20	19	71	117	8.78	20.12
07-Sep-20	30	95	158	7.81	18.7
08-Sep-20	24	74	133	9.86	25.75
15-Sep-20	18	68	92	8.98	27.37
16-Sep-20	19	54	76	10.25	23.8
21-Sep-20	21	74	98	16.64	15.99
22-Sep-20	23	69	94	9.61	14.23
29-Sep-20	17	58	81	8.77	10.69
30-Sep-20	25	82	139	8.27	20.3
06-Oct-20	20	64	98	10.8	15.6
07-Oct-20	29	76	114	11.74	19.32
14-Oct-20	29	89	128	12.09	11.67
15-Oct-20	27	76	112	13.56	23.15

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20-Oct-20	25	76	128	12.41	18.36
21-Oct-20	22	65	113	8.37	18.05
29-Oct-20	20	61	106	9.82	22.21
30-Oct-20	23	69	119	9.17	16.53
04-Nov-20	39	75	131	10.37	21.55
05-Nov-20	49	85	153	9.88	20.76
11-Nov-20	37	62	134	12.74	24.58
12-Nov-20	45	73	138	13.03	23.12
02-Dec-20	46	88	155	12.51	25.78
03-Dec-20	48	82	166	14.55	31.96
09-Dec-20	47	81	178	12.54	23.08
10-Dec-20	51	84	162	13.83	26.52
15-Dec-20	49	92	176	16.89	39.49
16-Dec-20	52	89	168	18.11	37.14
22-Dec-20	47	84	154	14.98	29.3
23-Dec-20	44	80	164	14.24	28.05
30-Dec-20	44	70	133	17.28	32
01-Jan-21	47	84	159	12.36	22.35
07-Jan-21	45	80	157	13.07	30.97
08-Jan-21	50	76	143	15.6	22.69
13-Jan-21	43	79	183	23.7	27.59
14-Jan-21	46	75	169	21.13	31.98
20-Jan-21	45	72	193	16	39.1
21-Jan-21	49	72	163	17.27	43.3
28-Jan-21	46	79	148	23.78	27.92
02-Feb-21	48	72	138	25.2	34.17
04-Feb-21	51	85	169	18.55	25.92
05-Feb-21	42	68	145	22.84	30.33
10-Feb-21	51	88	167	14.04	22.76
11-Feb-21	49	80	187	23.33	30.85
17-Feb-21	43	73	145	25.74	26.98
18-Feb-21	41	66	128	21.97	44.07
24-Feb-21	50	94	206	17.5	47.62
25-Feb-21	49	85	204	24.32	33.41
04-Mar-21	46	80	163	20.8	27.85
05-Mar-21	43	80	188	22.42	47.67
09-Mar-21	48	69	150	19.51	38.13
10-Mar-21	45	78	163	15.78	28.34
18-Mar-21	53	93	182	20.41	38.66
19-Mar-21	47	77	202	17.26	23.06
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	95	206	25.74	47.67
Minimum	17	43	55	7.68	10.69
Average	34.64	74.01	133.98	13.82	24.86
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

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Table:42

Area: Basundhara

Project: Garjanbahal OCP

Monitoring Station: Siarmal Village

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
01-Jun-20	42	90	152	10.68	32.8
02-Jun-20	31	92	124	12.42	21.03
08-Jun-20	25	89	179	12.08	17.64
09-Jun-20	23	92	171	11.89	20.53
16-Jun-20	20	38	56	7.08	17.87
17-Jun-20	33	75	117	15.17	17.55
22-Jun-20	29	57	75	8.42	14.18
23-Jun-20	21	49	62	7.48	13.38
30-Jun-20	38	58	95	8.02	15.29
01-Jul-20	24	70	109	10.69	17.56
07-Jul-20	29	41	83	9.01	17.27
08-Jul-20	20	60	91	10.4	17.94
14-Jul-20	21	49	78	10.28	15.42
15-Jul-20	30	48	87	12.89	20.22
27-Jul-20	22	43	74	10.9	20.46
28-Jul-20	19	46	68	10.47	16.45
03-Aug-20	20	58	103	10.45	22.26
04-Aug-20	22	52	111	14.15	20.78
10-Aug-20	24	61	112	11.69	21.17
11-Aug-20	22	56	98	12.46	26.13
18-Aug-20	20	50	88	10.53	23.6
19-Aug-20	23	74	105	10.16	24.12
25-Aug-20	23	58	91	8.31	20.92
26-Aug-20	21	65	102	11.18	17.9
02-Sep-20	28	83	132	11.35	23.36
03-Sep-20	23	69	118	8.89	16.88
07-Sep-20	32	90	140	7.56	20.47
08-Sep-20	30	66	109	9.22	18.46
15-Sep-20	19	63	89	12.6	14.63
16-Sep-20	23	74	104	8.83	12.31
21-Sep-20	24	66	93	8.27	15.3
22-Sep-20	20	63	96	11.05	14.43
29-Sep-20	26	86	131	7.95	16.03
30-Sep-20	23	92	129	9.6	21.3
06-Oct-20	22	68	98	12.15	17.04
07-Oct-20	26	64	90	8.76	17.94
14-Oct-20	19	58	92	10.85	12.82
15-Oct-20	24	69	112	13.56	23.15
20-Oct-20	40	84	139	8.31	22.87
21-Oct-20	31	79	132	7.88	18.59

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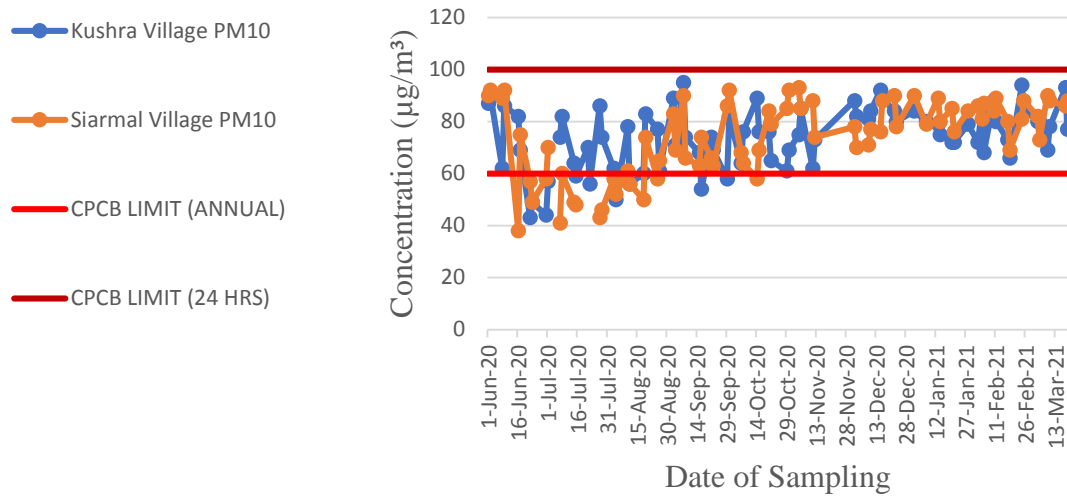
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29-Oct-20	35	85	144	8.66	19.71
30-Oct-20	37	92	137	10.99	20.33
04-Nov-20	51	93	167	12.82	25.13
05-Nov-20	48	85	149	11.29	24.55
11-Nov-20	53	88	166	10.08	21.33
12-Nov-20	44	74	155	10.59	20.75
02-Dec-20	40	78	147	11.31	24.06
03-Dec-20	35	70	138	10.28	29.72
09-Dec-20	39	71	137	12.54	29.78
10-Dec-20	44	77	153	10.03	20.85
15-Dec-20	38	76	138	12.22	28.9
16-Dec-20	46	88	162	14.56	25.87
22-Dec-20	51	90	155	15.98	39.85
23-Dec-20	51	78	152	21.26	31.58
30-Dec-20	47	77	151	13.77	37.67
01-Jan-21	50	90	171	16.26	27.6
07-Jan-21	49	79	148	17.21	31.87
08-Jan-21	53	89	180	19.11	28.24
13-Jan-21	42	80	186	17.81	29.45
14-Jan-21	46	85	183	24.58	34.7
20-Jan-21	44	76	178	18.01	41.92
21-Jan-21	49	84	198	21.39	36.48
29-Jan-21	50	86	206	15.79	25.73
04-Feb-21	48	81	180	18.68	34.06
05-Feb-21	52	87	199	15.14	33.86
10-Feb-21	48	84	153	18.8	31.54
11-Feb-21	50	89	157	22.91	29
17-Feb-21	48	80	165	20.98	37.6
18-Feb-21	42	69	133	22.59	28.8
24-Feb-21	48	81	193	20.82	32.58
25-Feb-21	53	88	201	19.16	27.93
04-Mar-21	52	82	176	22.05	36.09
05-Mar-21	50	73	183	17.22	36.27
09-Mar-21	53	90	181	16.49	27.34
10-Mar-21	51	88	189	21.69	20.8
18-Mar-21	49	86	187	16.62	25.45
19-Mar-21	50	88	196	21.01	28.29
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	93	206	24.58	41.92
Minimum	19	38	56	7.08	12.31
Average	35.69	74.05	135.44	13.30	23.94
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

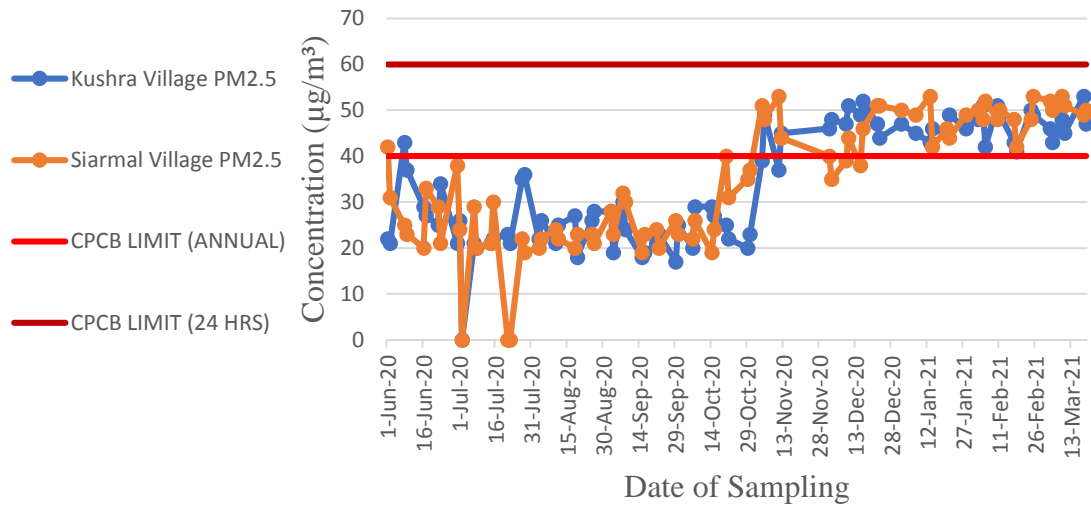
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Graph Showing PM₁₀ for Garjanbahal OCP



Graph Showing PM_{2.5} for Garjanbahal OCP



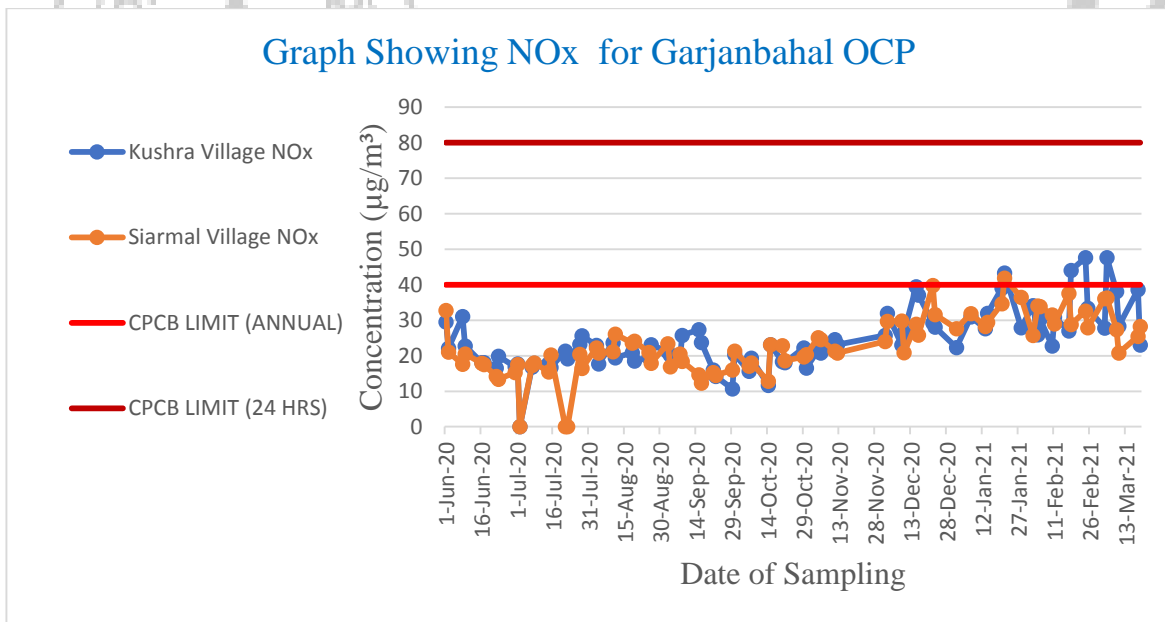
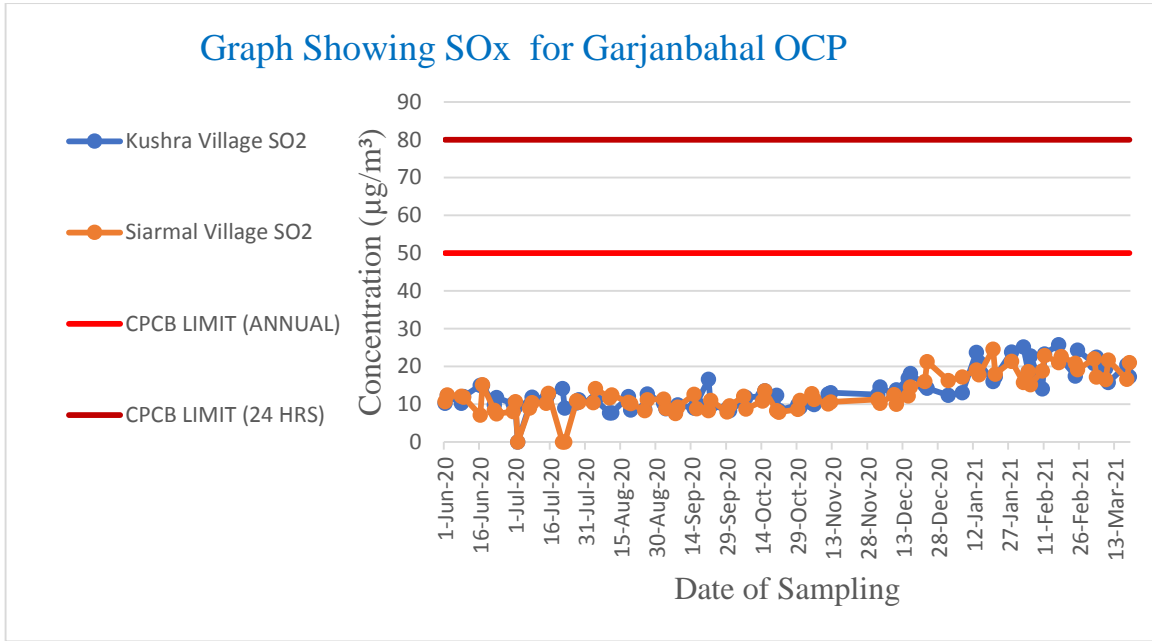


Table:43

Area: Basundhara**Project:** Kulda OCP**Monitoring Station:** External CT RoadAll values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
04-Jun-20	169	121	25	13.43	16.92
17-Jun-20	144	126	32	15.34	19.85
02-Jul-20	169	71	21	12.8	20.08
16-Jul-20	75	48	24	12.17	26.36
03-Aug-20	170	77	27	10.29	24.44
17-Aug-20	115	69	26	10.11	26.31
01-Sep-20	124	83	22	10.34	26.11
17-Sep-20	124	77	38	8.84	23.09
17-Sep-20	124	77	38	8.84	23.09
05-Oct-20	144	98	22	9.72	22.12
19-Oct-20	172	118	28	9.32	27.05
03-Nov-20	89	63	34	13.36	25.4
17-Nov-20	109	72	29	11.02	16.8
01-Dec-20	247	152	65	13.22	28.25
14-Dec-20	213	124	58	11.36	36.19
12-Jan-21	298	182	52	23.28	31.7
27-Jan-21	205	108	53	25.16	34.61
09-Feb-21	237	149	58	19.15	29.88
23-Feb-21	274	129	51	34.4	22.58
08-Mar-21	234	114	49	24.63	11.68
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	298	182	65	34.4	36.19
Minimum	75	48	21	8.84	11.68
Average	171.95	101.95	38.26	14.91	25.03
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:44

Area: Basundhara

Project: Kulda OCP

Monitoring Station: North of CHP

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
03-Jun-20	158	99	47	12.44	31.73
18-Jun-20	95	55	27	8.79	15.11
02-Jul-20	128	77	30	13.75	31.62
16-Jul-20	93	61	20	10.23	18.49
03-Aug-20	97	41	23	9.2	19.96
17-Aug-20	123	73	23	8.59	23.11
01-Sep-20	123	78	18	8.19	21.03
17-Sep-20	196	142	26	17.33	20.82
17-Sep-20	196	142	26	17.33	20.82
05-Oct-20	150	103	27	12.58	20.58
19-Oct-20	96	68	22	12.4	24.56
03-Nov-20	134	87	43	10.87	20.25
17-Nov-20	118	82	36	9.91	19.12
01-Dec-20	290	179	70	8.41	30.92
14-Dec-20	368	240	81	15.09	34.05
12-Jan-21	229	157	49	20.09	34.18
27-Jan-21	271	153	49	16.64	36.21
09-Feb-21	285	167	51	17.97	35.69
23-Feb-21	211	109	54	35.42	12.49
08-Mar-21	232	131	52	27.48	7.4
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	368	240	81	35.42	36.21
Minimum	93	41	18	8.19	7.4
Average	180.79	112.89	38.26	14.75	23.50
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:45

Area: Basundhara

Project: Kulda OCP

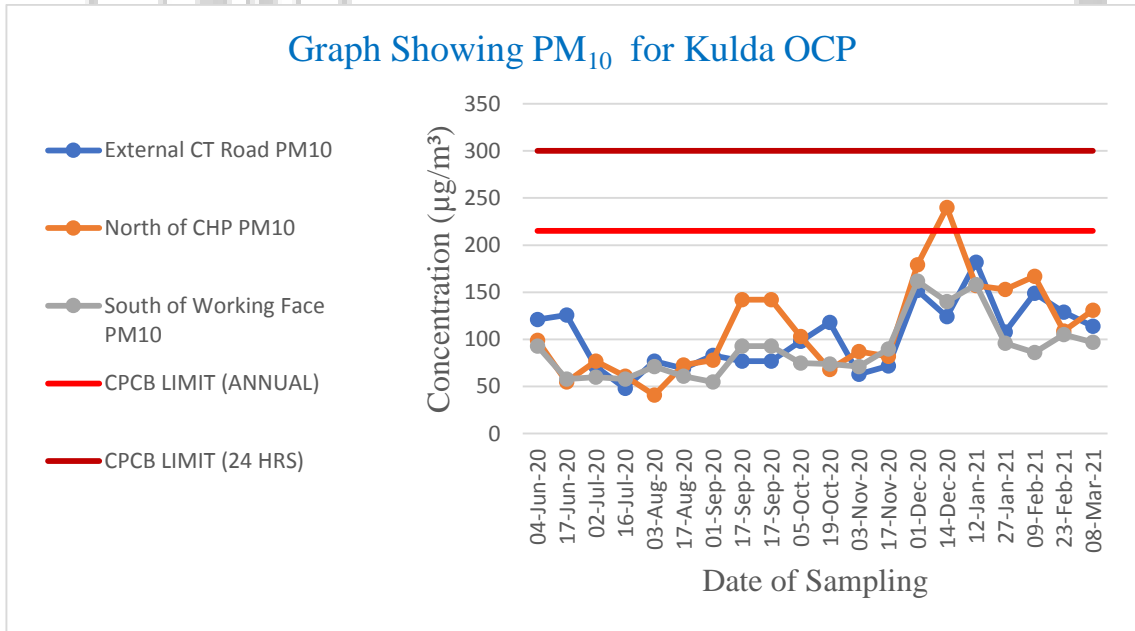
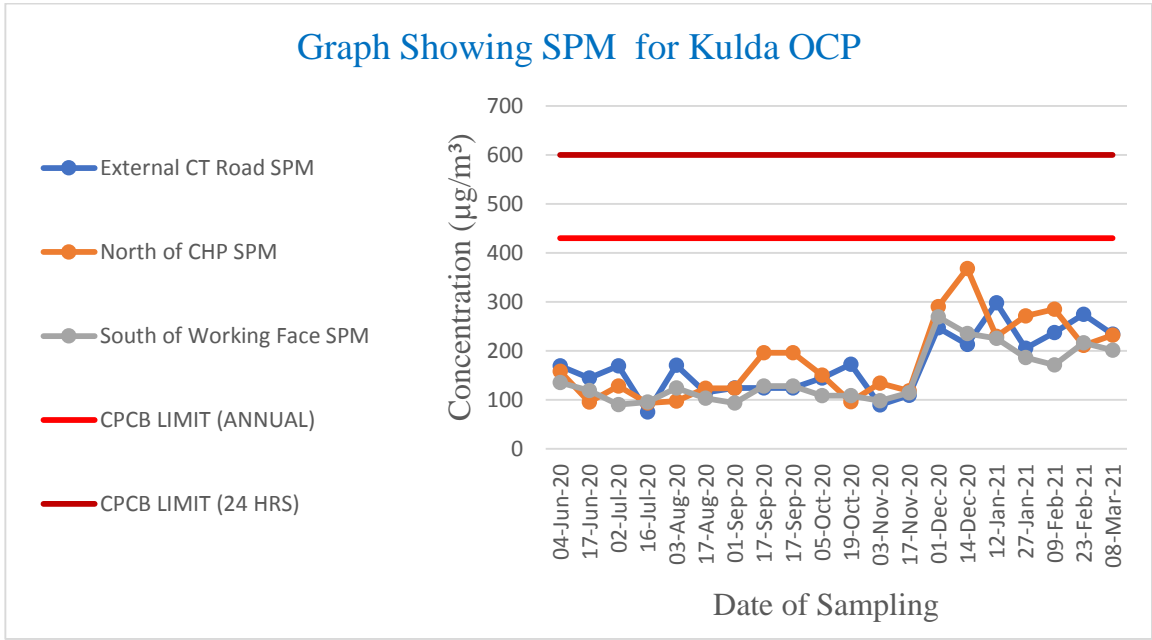
Monitoring Station: South of Working Face

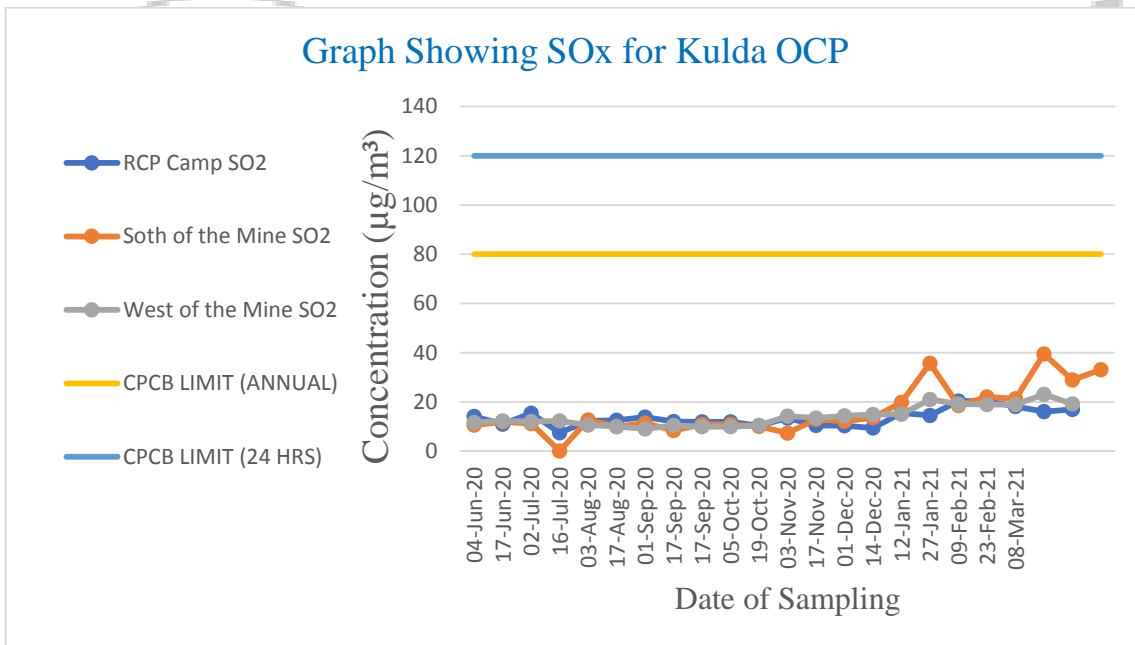
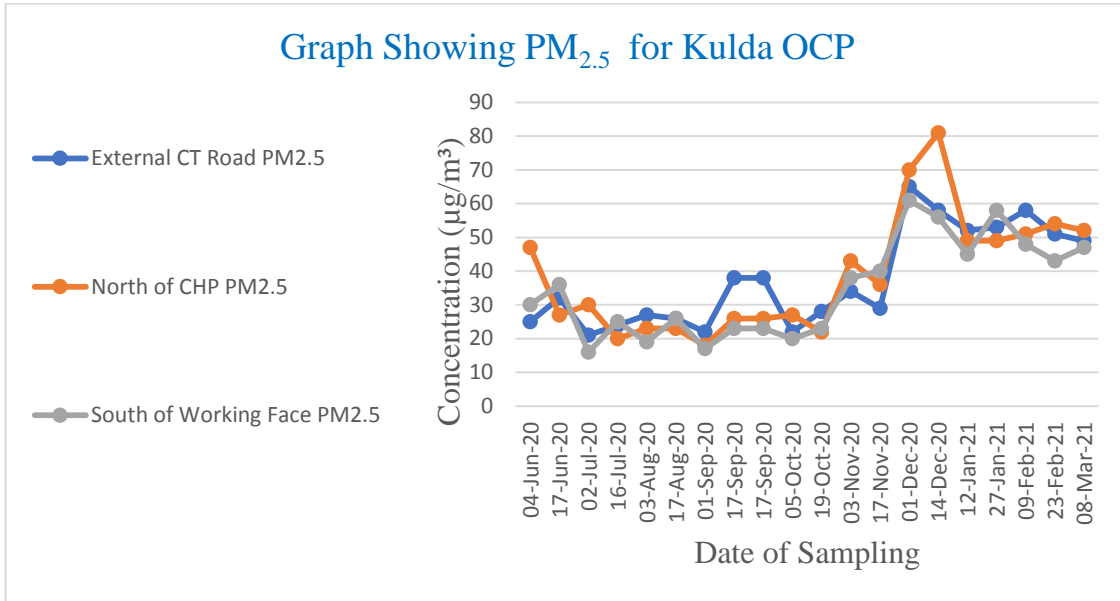
All values are in $\mu\text{g}/\text{m}^3$

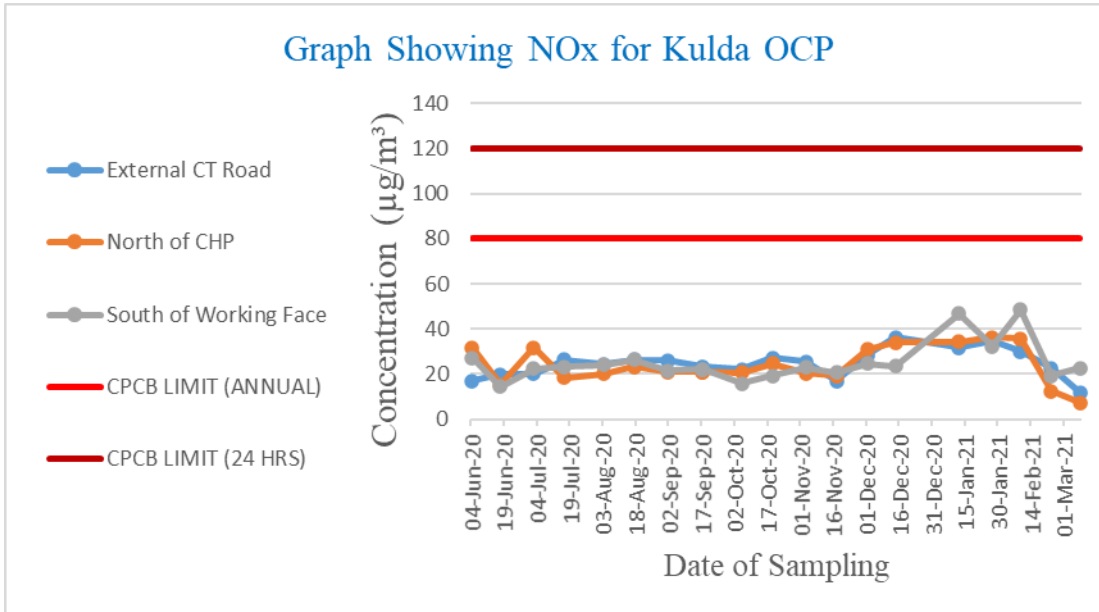
Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
03-Jun-20	135	93	30	13.96	27.25
18-Jun-20	119	58	36	9.43	14.41
02-Jul-20	90	60	16	14.32	22.45
16-Jul-20	95	58	25	11.21	23.27
04-Aug-20	124	71	19	10.66	24.12
17-Aug-20	103	61	26	14.06	26.21
01-Sep-20	93	55	17	9.85	21.44
17-Sep-20	128	93	23	9.45	21.94
17-Sep-20	128	93	23	9.45	21.94
05-Oct-20	108	75	20	9.64	15.74
19-Oct-20	108	74	23	8.9	19.2
03-Nov-20	98	71	38	12.28	22.97
17-Nov-20	114	90	40	13.28	20.57
01-Dec-20	269	162	61	11.63	24.6
14-Dec-20	235	140	56	10.1	23.5
12-Jan-21	225	158	45	15.04	46.69
27-Jan-21	186	96	58	19.28	32.34
09-Feb-21	171	86	48	25.67	48.45
23-Feb-21	216	105	43	31.13	19.26
08-Mar-21	201	97	47	29.35	22.57
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	269	162	61	31.13	48.45
Minimum	90	55	16	8.9	14.41
Average	147.95	89.63	34.95	14.46	24.82
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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Table:46

Area: Basundhara

Project: Kulda OCP

Monitoring Station: West of Working Face

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
01-Jun-20	38	82	133	13.96	19.29
02-Jun-20	32	71	124	13.48	22.28
08-Jun-20	30	79	98	12.91	16.72
09-Jun-20	24	41	59	10.86	25.43
16-Jun-20	34	55	92	9.41	11.11
17-Jun-20	30	41	49	15.31	16.58
22-Jun-20	38	53	95	11.53	15.11
23-Jun-20	28	86	111	14.16	13.78
30-Jun-20	36	57	73	11.52	12.48
01-Jul-20	20	67	107	18.4	27.6
07-Jul-20	24	77	117	16.82	23.21
08-Jul-20	25	64	109	11.5	19.85
14-Jul-20	21	62	104	10.65	20.41
15-Jul-20	44	86	154	12.72	21.94
21-Jul-20	24	67	108	9.25	17.74
22-Jul-20	20	54	91	12.07	23.63
27-Jul-20	23	48	71	11.06	19.99
28-Jul-20	24	62	94	8.77	21.61
03-Aug-20	23	45	68	11.1	19.5
04-Aug-20	19	67	99	11.98	22.68
10-Aug-20	27	40	61	13.12	17.51
11-Aug-20	22	44	75	12.78	27.6
18-Aug-20	21	55	85	9.86	24.15
19-Aug-20	27	68	119	12.19	22.9
25-Aug-20	23	54	103	11.92	19.74
26-Aug-20	26	78	124	11.63	21.06
02-Sep-20	20	64	97	11.53	19.17
03-Sep-20	27	85	122	12.06	15.13
07-Sep-20	41	90	145	8.81	18.41
08-Sep-20	37	95	153	8.39	20.29
15-Sep-20	18	53	91	9.81	29.91
16-Sep-20	20	56	87	14.63	19.37
21-Sep-20	23	64	93	8.29	24.31
22-Sep-20	22	53	84	12.82	26.98
29-Sep-20	26	70	104	11.69	24.61
30-Sep-20	19	48	80	10.49	28.9
06-Oct-20	24	78	109	11.63	19.85
07-Oct-20	22	65	120	14.79	21.04
14-Oct-20	28	86	128	12.63	17.97
15-Oct-20	21	76	110	14.68	22.37
20-Oct-20	29	72	123	9.29	18.14

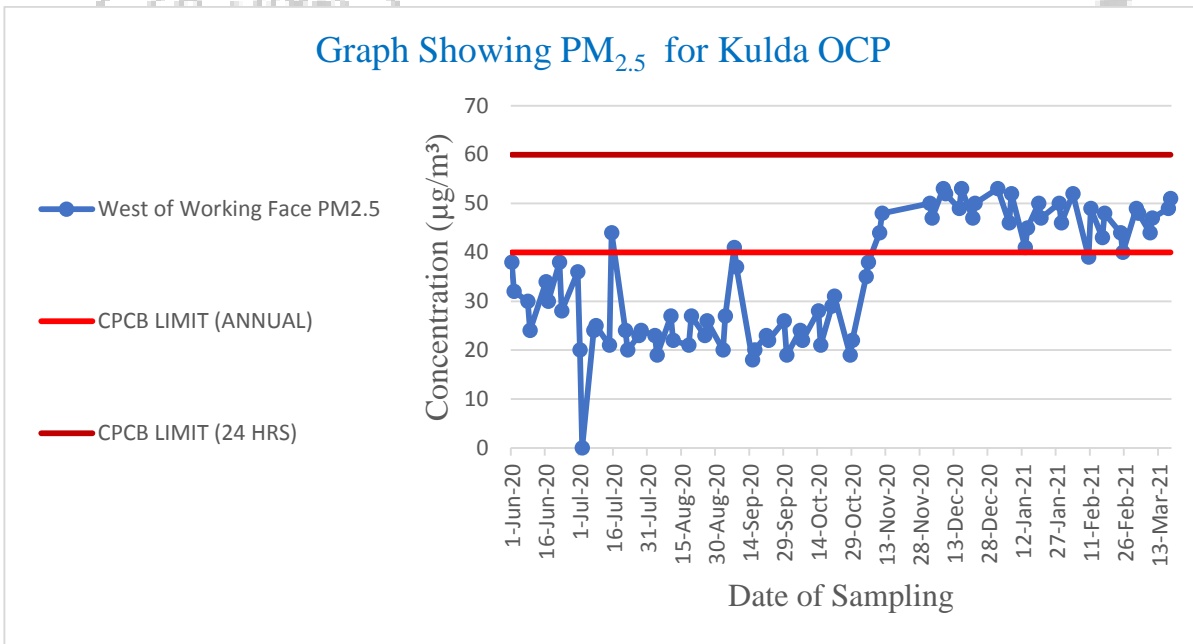
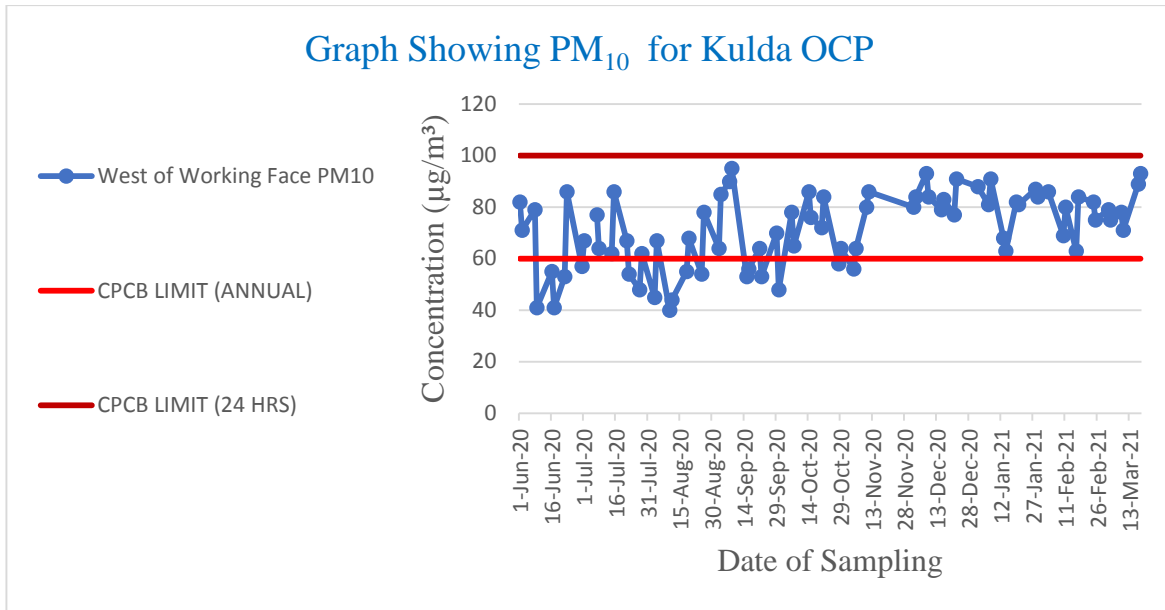
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21-Oct-20	31	84	137	11.85	19.38
28-Oct-20	19	58	100	13.82	26.12
29-Oct-20	22	64	98	9.26	25.31
04-Nov-20	35	56	97	10.83	18.87
05-Nov-20	38	64	116	9.06	23.01
10-Nov-20	44	80	133	12.56	20.89
11-Nov-20	48	86	148	8.69	24.91
02-Dec-20	50	80	148	14.63	20.58
03-Dec-20	47	84	160	10.5	27.76
08-Dec-20	53	93	179	13.68	24.48
09-Dec-20	52	84	156	9.58	30.26
15-Dec-20	49	79	136	12.05	29.68
16-Dec-20	53	83	151	15.43	32.73
21-Dec-20	47	77	144	17.73	33.05
22-Dec-20	50	91	163	13.97	41.48
30-Dec-20	43	80	148	12.63	20.46
01-Jan-21	53	88	172	14.79	37.86
06-Jan-21	46	81	176	19.04	30.47
07-Jan-21	52	91	189	18.76	25
13-Jan-21	41	68	156	18.72	54.46
14-Jan-21	45	63	140	24.47	41.02
19-Jan-21	50	82	169	20.23	32.74
20-Jan-21	47	81	177	17.8	37.11
28-Jan-21	50	87	153	25.29	39.39
29-Jan-21	46	84	164	24.18	38.17
03-Feb-21	52	86	180	16.28	24.96
10-Feb-21	39	69	147	18.94	46.13
11-Feb-21	49	80	153	19.92	30.23
16-Feb-21	43	63	123	23.43	39.3
17-Feb-21	48	84	161	24.39	45.27
24-Feb-21	44	82	159	12.01	35.23
25-Feb-21	40	75	170	21.27	39.88
03-Mar-21	49	79	183	13.18	23.81
04-Mar-21	48	75	150	18.27	29.6
09-Mar-21	44	78	190	12.59	29.98
10-Mar-21	47	71	183	16.33	32.27
17-Mar-21	49	89	216	12.3	20.92
18-Mar-21	51	93	213	16.62	28.98
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	95	216	25.29	54.46
Minimum	18	40	49	8.29	11.11
Average	35.37	71.52	127.94	13.87	25.72
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

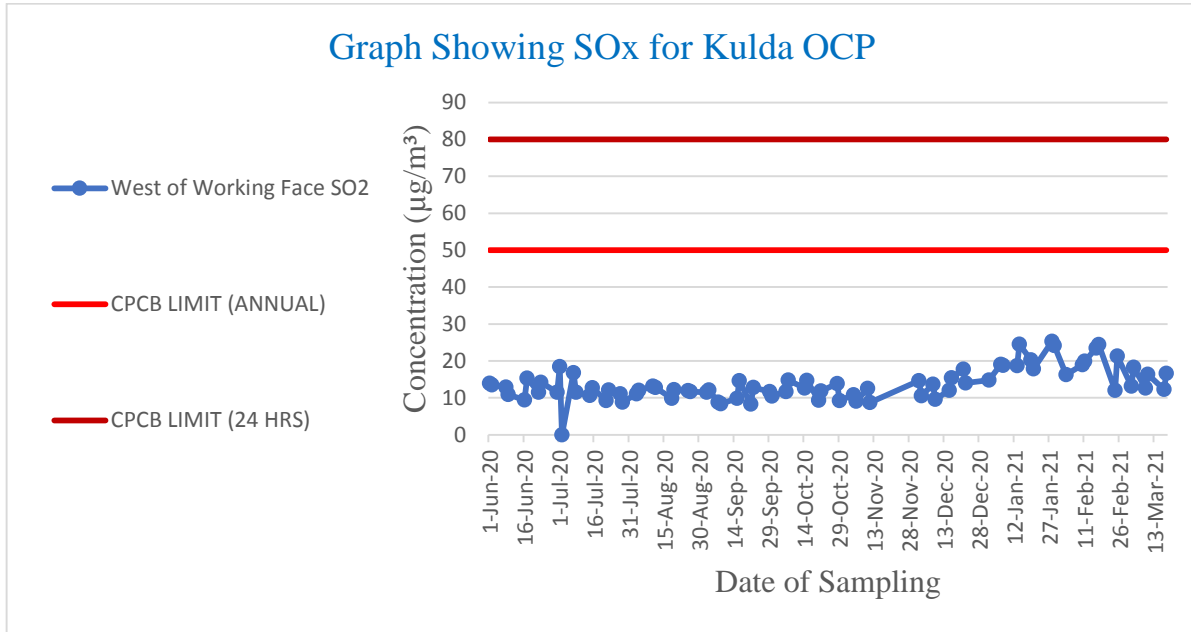
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Table:47

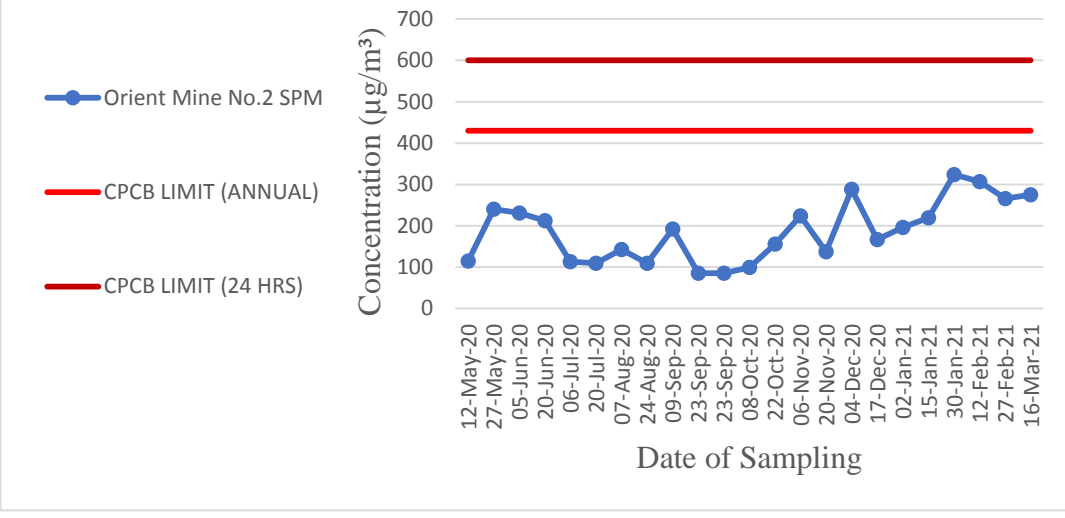
Area: Orient**Project:** Orient Mine No.1 & 2**Monitoring Station:** Orient Mine No.2All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
12-May-20	115	57	23	8.33	21.88
27-May-20	240	173	29	8.61	13.56
05-Jun-20	231	194	22	11.98	15.05
20-Jun-20	212	136	41	8.54	14.37
06-Jul-20	113	67	25	9.15	15.79
20-Jul-20	109	66	26	8.29	22.69
07-Aug-20	143	83	21	7.92	13.75
24-Aug-20	109	64	22	7.93	21.74
09-Sep-20	192	131	27	7.35	21.76
23-Sep-20	85	57	17	8.29	16.51
23-Sep-20	85	57	17	8.29	16.51
08-Oct-20	99	69	23	8.63	14.12
22-Oct-20	156	109	30	9.68	18.98
06-Nov-20	224	136	67	8.9	17.89
20-Nov-20	137	156	69	9.99	15.1
04-Dec-20	288	195	55	12.98	28.28
17-Dec-20	167	105	52	12.36	33.4
02-Jan-21	196	125	58	16.74	29.88
15-Jan-21	219	147	53	18.16	45.62
30-Jan-21	324	197	64	16.38	37.95
12-Feb-21	307	171	57	16.46	26.95
27-Feb-21	266	152	54	22.26	27.8
16-Mar-21	275	133	50	18.1	27.76
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	324	197	69	22.26	45.62
Minimum	85	57	17	7.35	13.75
Average	187.48	121.43	40.48	11.83	22.95
Standard 24 hr	600	300		120	120
Standard Annual	430	215		80	80

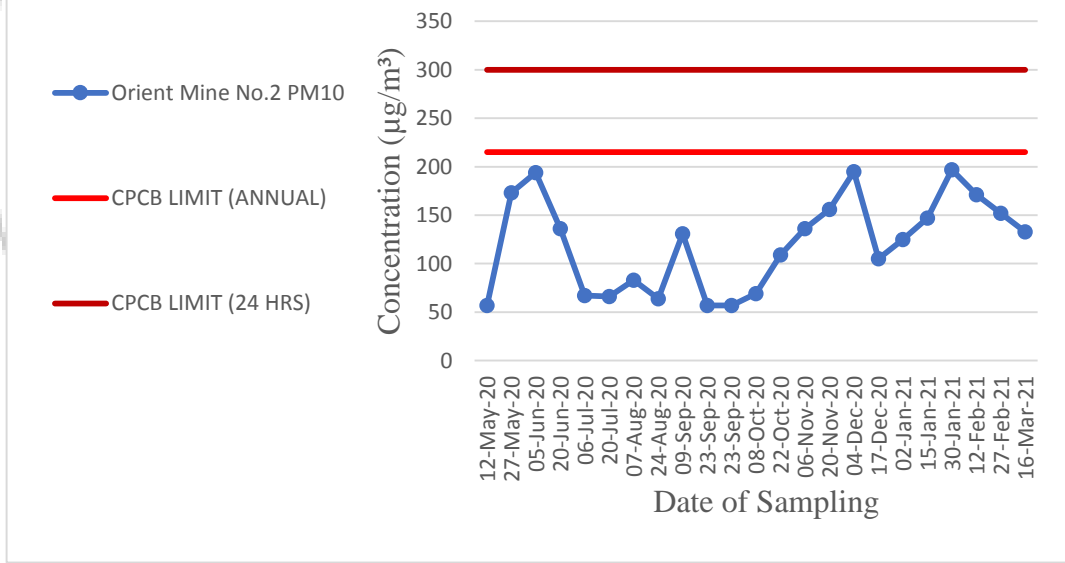
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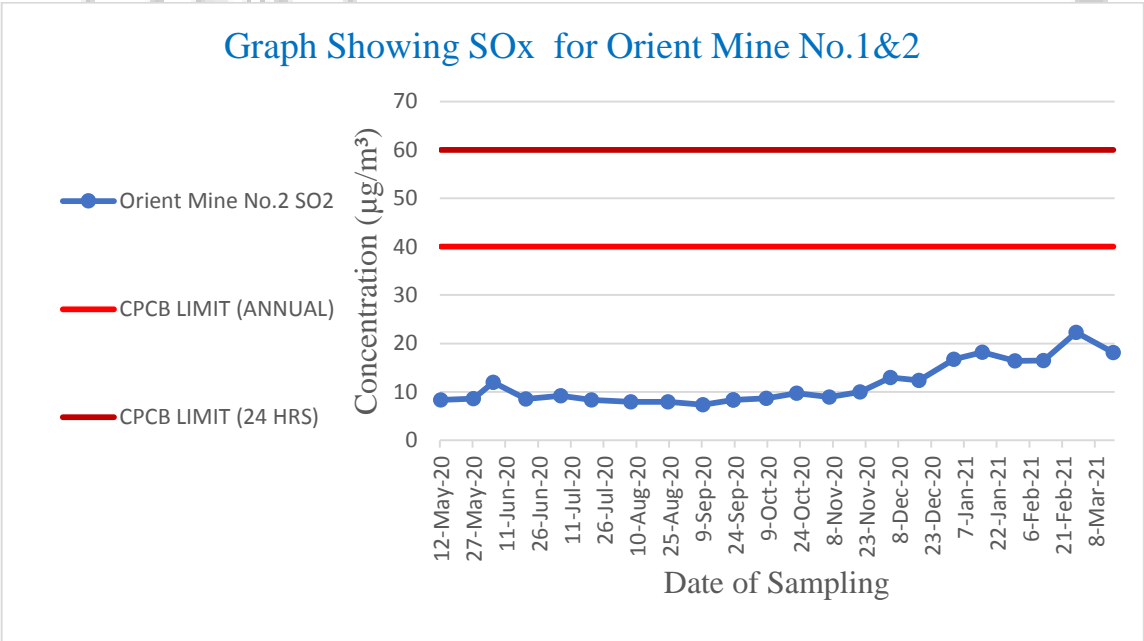
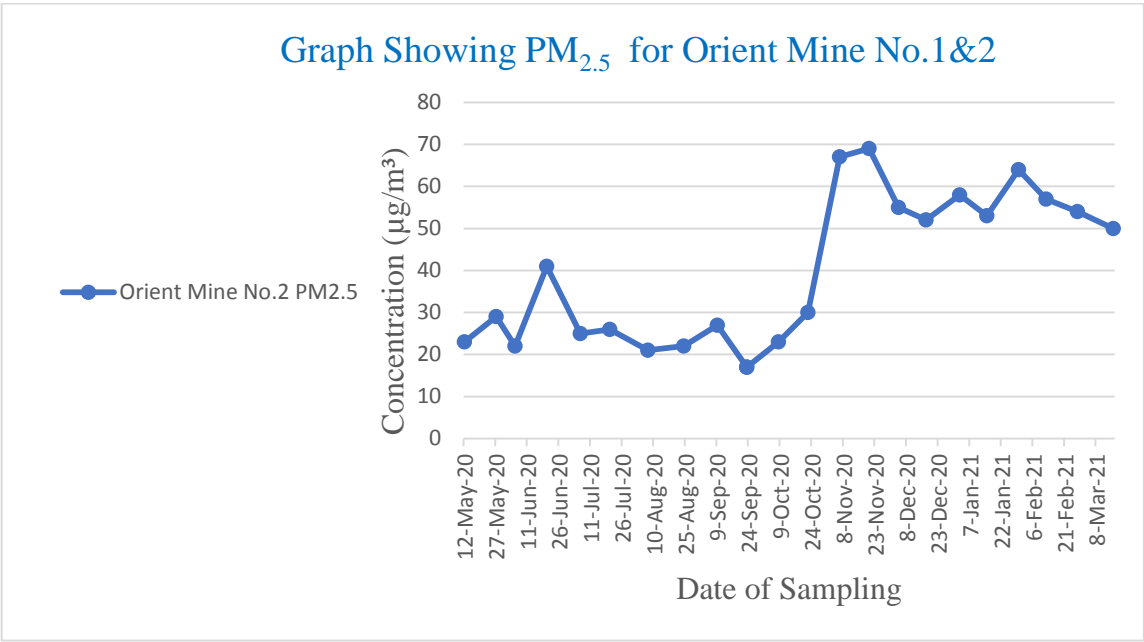
JOB NO.750001

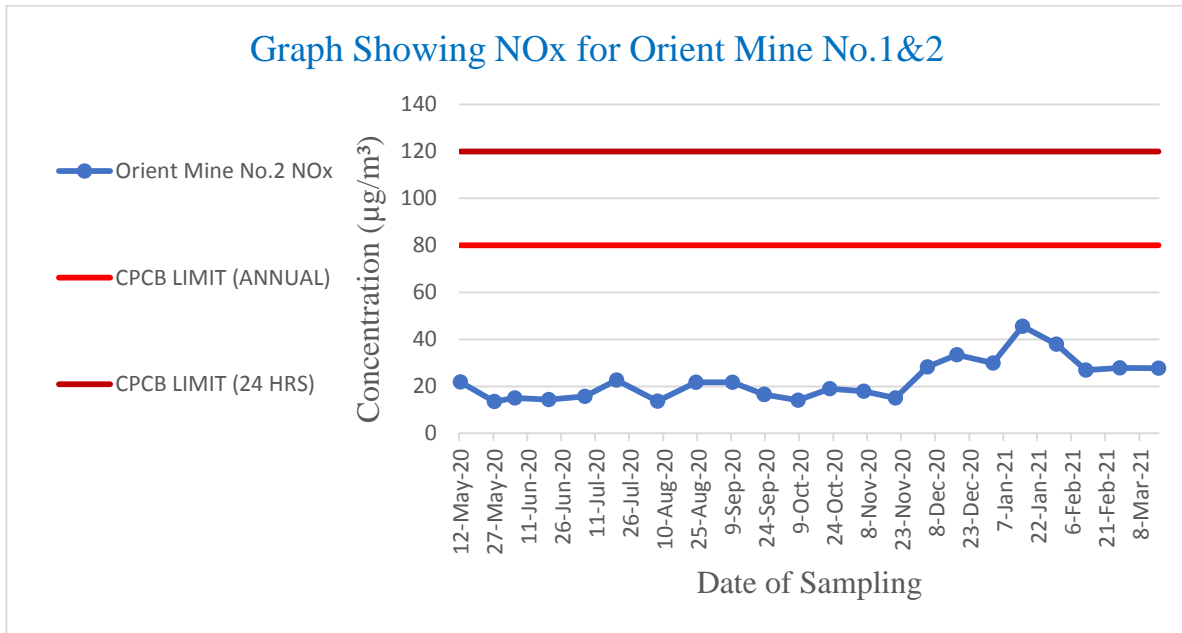
Graph Showing SPM for Orient Mine No.1&2



Graph Showing PM₁₀ for Orient Mine No.1&2







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JOB NO.750001

Table:48

Area: Orient

Project: Orient Mine No.1 & 2

Monitoring Station: VIP Guest House IB Valley

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
05-Jun-20	27	95	123	14.65	10.49
06-Jun-20	22	88	106	12.66	11.91
12-Jun-20	20	79	87	12.86	17.25
13-Jun-20	19	82	134	12.53	11.43
21-Jun-20	41	75	97	7.89	13.27
22-Jun-20	32	60	78	18.73	26.79
26-Jun-20	20	40	50	7.94	9.14
27-Jun-20	26	44	51	9.62	12.59
10-Jul-20	21	92	142	11.8	15.66
11-Jul-20	18	87	131	13.17	16.22
17-Jul-20	17	57	79	9.15	24.06
18-Jul-20	19	46	67	12.17	25.45
24-Jul-20	22	59	80	7.49	15.03
25-Jul-20	24	81	115	9.21	22.3
30-Jul-20	18	93	123	6.64	16.36
31-Jul-20	21	78	108	8.84	15.28
05-Aug-20	19	61	98	11.15	20.83
06-Aug-20	19	47	101	6.96	16.78
12-Aug-20	25	90	135	12.3	20.37
13-Aug-20	24	79	132	8.54	24.69
21-Aug-20	21	71	123	7.59	24.02
22-Aug-20	24	75	109	7.71	16.06
28-Aug-20	29	57	93	10.73	21.72
29-Aug-20	27	71	116	9.01	15.62
03-Sep-20	37	87	158	8.48	19.94
04-Sep-20	18	60	89	8.33	15.2
10-Sep-20	22	71	104	8.92	14.18
11-Sep-20	26	86	125	12.3	26.29
16-Sep-20	19	61	98	11.15	20.83
17-Sep-20	43	89	148	9.48	17.17
24-Sep-20	30	76	122	8.44	17.3
25-Sep-20	23	65	104	12.04	21
01-Oct-20	26	85	122	7.84	14.6
03-Oct-20	26	90	139	10.51	17.22
08-Oct-20	24	61	92	14.07	15.54
09-Oct-20	21	53	102	8.39	14.32
13-Oct-20	24	69	104	11.09	22.08
14-Oct-20	19	62	89	9.95	14.15
20-Oct-20	28	78	114	9.61	15.8
21-Oct-20	31	88	123	8.42	16.17

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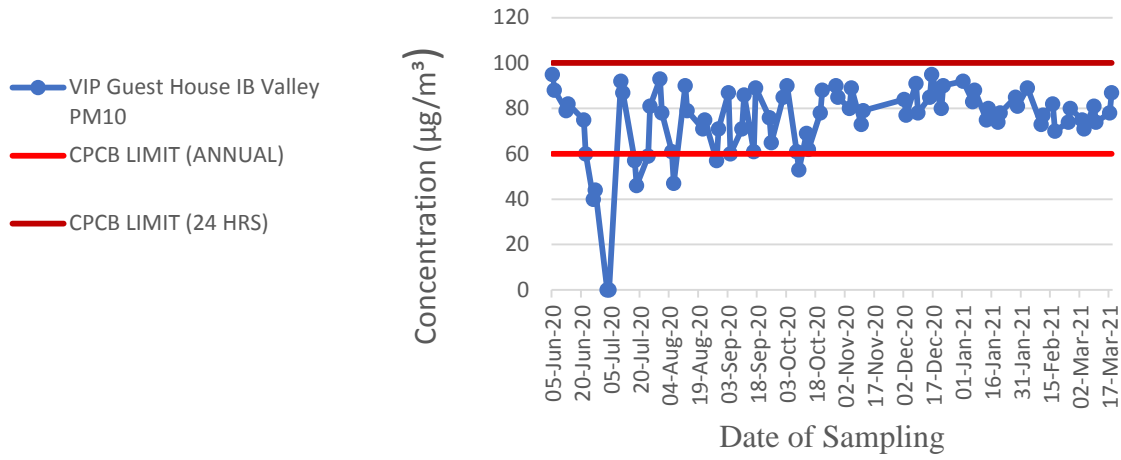
JOB NO.750001

28-Oct-20	33	90	146	11.74	26.21
29-Oct-20	38	85	141	8	22.98
04-Nov-20	50	80	136	11.75	20.85
05-Nov-20	54	89	149	12.43	21.33
10-Nov-20	45	73	161	9.75	24.33
11-Nov-20	48	79	145	12.73	26.48
02-Dec-20	48	84	158	11.44	21.73
03-Dec-20	42	77	143	10.04	23.37
08-Dec-20	39	91	166	10.66	20.26
09-Dec-20	43	78	139	9.27	21.02
15-Dec-20	45	85	161	10.4	25.26
16-Dec-20	49	95	173	13.1	23.29
21-Dec-20	46	80	147	16.88	20.71
22-Dec-20	51	90	165	10.83	23.78
30-Dec-20	43	85	161	22.22	32.59
01-Jan-21	49	92	189	14.62	23.46
06-Jan-21	49	83	179	21.5	21.45
07-Jan-21	47	88	160	21.09	38.3
13-Jan-21	47	75	164	19.51	40.73
14-Jan-21	44	80	175	19.93	33.41
19-Jan-21	43	74	173	16.76	49.01
20-Jan-21	41	78	187	21.03	35.98
28-Jan-21	48	85	148	23.09	29.05
29-Jan-21	47	81	163	26.13	42.46
03-Feb-21	51	89	178	25.74	26.06
10-Feb-21	43	73	137	19.99	39.4
11-Feb-21	49	77	152	27.11	27.28
16-Feb-21	47	82	163	19.9	32.7
17-Feb-21	39	70	146	16.99	35.28
24-Feb-21	47	74	164	19.57	32.04
25-Feb-21	44	80	157	23.7	35.19
03-Mar-21	48	75	183	20.68	37.69
04-Mar-21	42	71	153	19.4	26.02
09-Mar-21	51	81	140	19.74	30.53
10-Mar-21	46	74	156	20.84	25.67
17-Mar-21	49	78	142	12.76	35.73
18-Mar-21	53	87	168	15.12	33.07
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	54	95	189	27.11	49.01
Minimum	17	40	50	6.64	9.14
Average	34.68	76.57	132.19	13.44	23.24
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

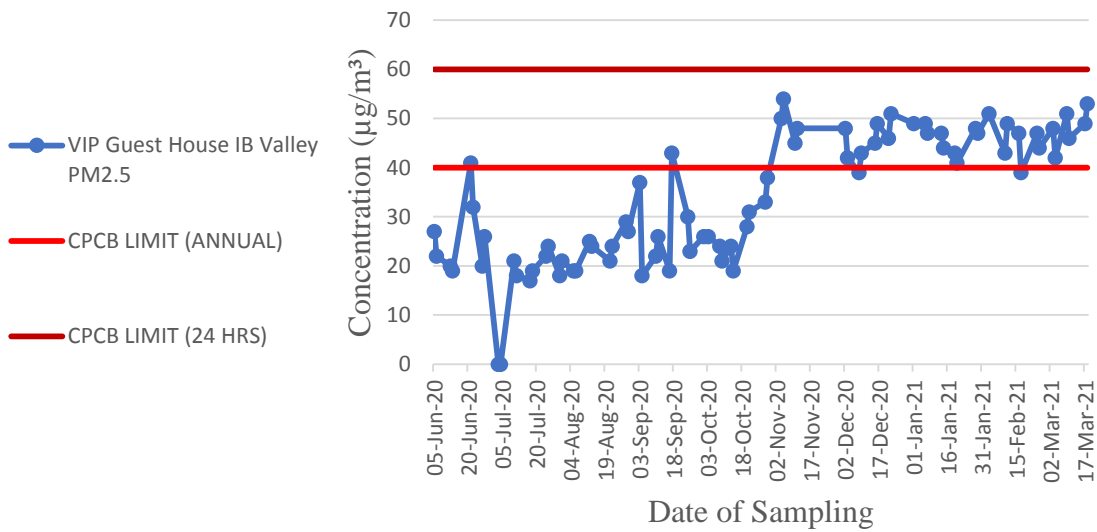
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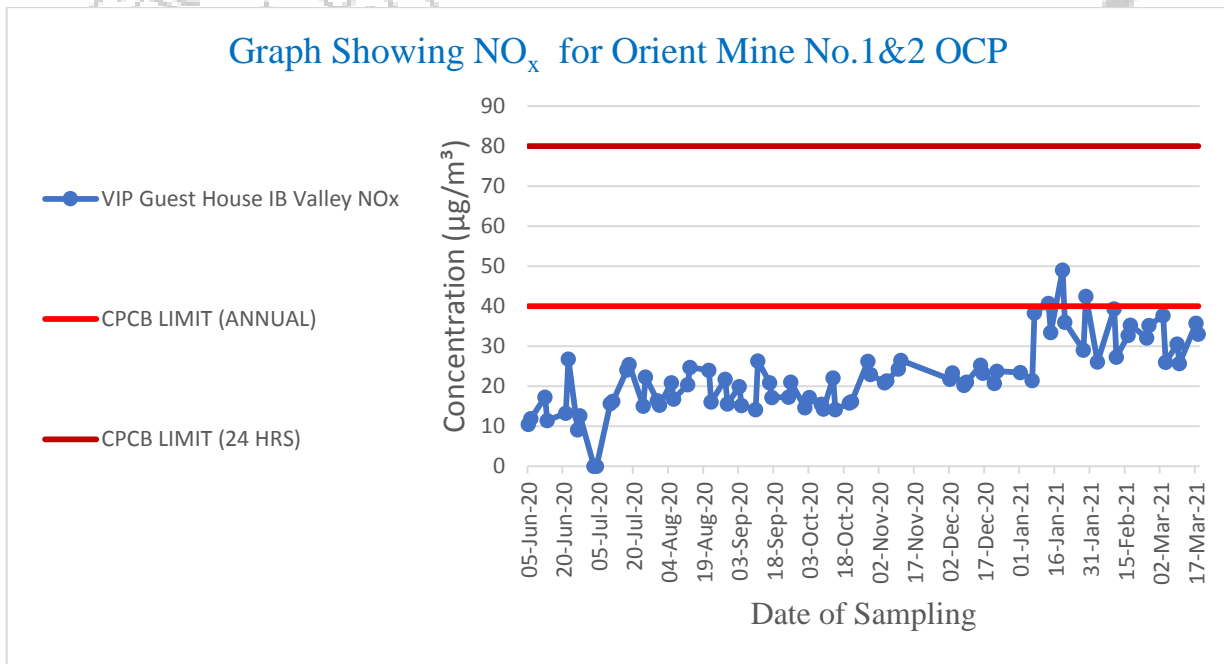
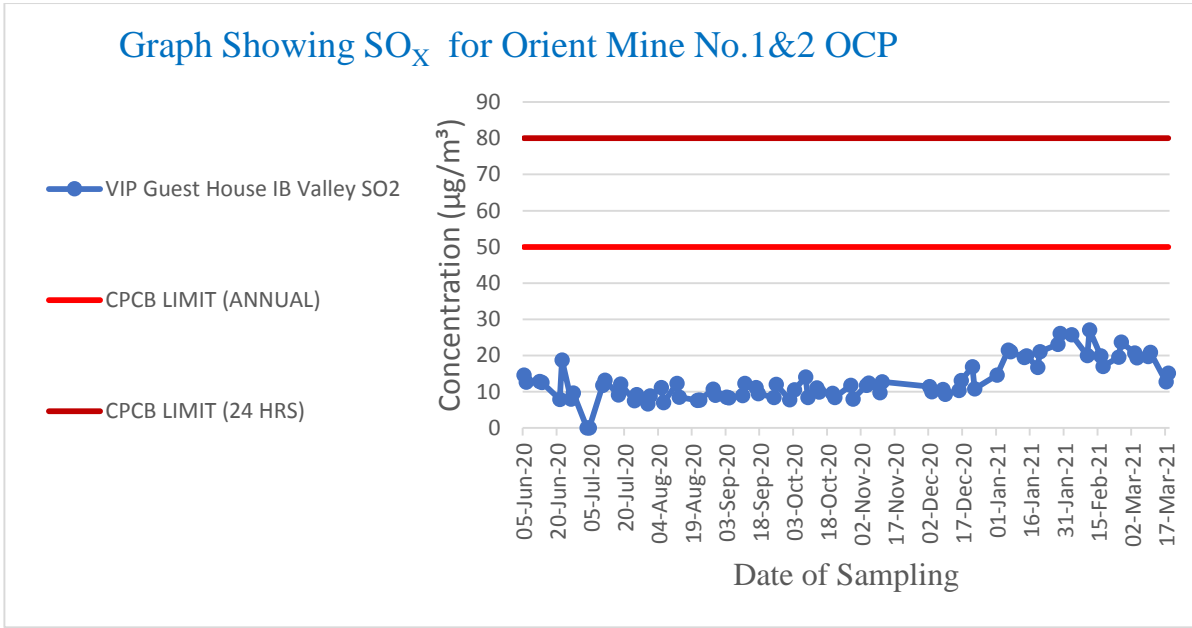
JOB NO.750001

Graph Showing PM₁₀ for Orient Mine No.1&2 OCP



Graph Showing PM_{2.5} for Orient Mine No.1&2 OCP





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JOB NO.750001

Table:49

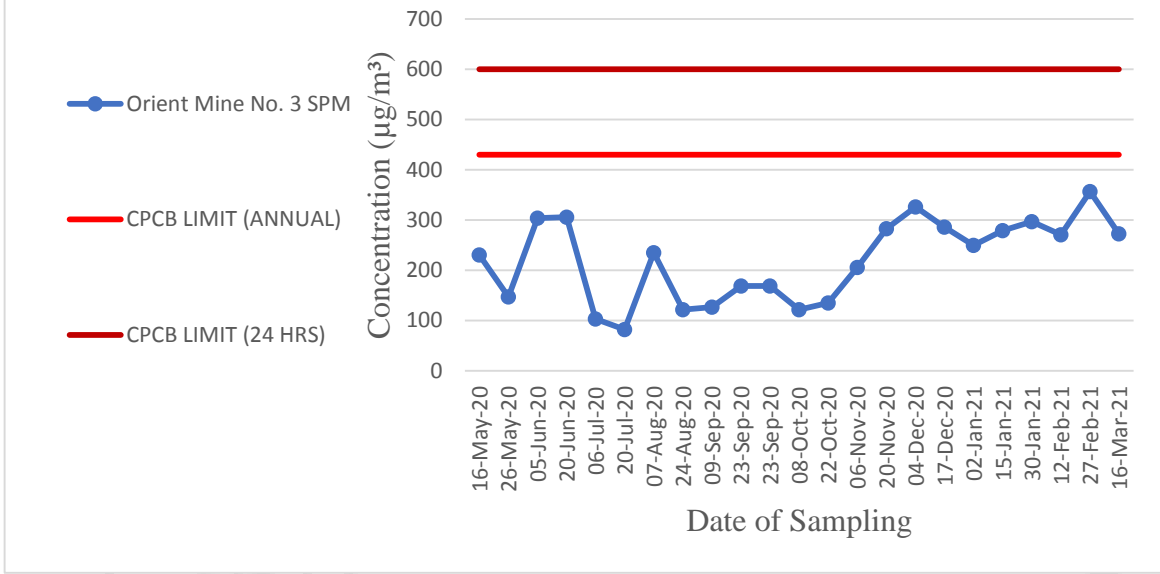
Area: Orient**Project:** Orient Mine No. 3**Monitoring Station:** Orient Mine No. 3All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
16-May-20	231	158	30	9.63	15.33
26-May-20	147	94	34	10.45	15.24
05-Jun-20	304	255	22	12.36	14.66
20-Jun-20	306	252	23	7.6	15.64
06-Jul-20	103	41	19	8.19	16.52
20-Jul-20	82	48	19	8.58	19.23
07-Aug-20	235	165	33	8.44	15.97
24-Aug-20	122	72	17	7.28	13.3
09-Sep-20	127	93	21	7.56	15.14
23-Sep-20	169	117	25	8.43	17.4
23-Sep-20	169	117	25	8.43	17.4
08-Oct-20	122	84	21	8.57	16.55
22-Oct-20	135	89	28	10.29	21.08
06-Nov-20	206	131	63	10.19	17.62
20-Nov-20	283	197	70	11.82	20.36
04-Dec-20	326	193	63	11.37	20.92
17-Dec-20	286	174	57	17.45	26.99
02-Jan-21	250	160	55	19.32	21.47
15-Jan-21	279	159	61	23.21	39.06
30-Jan-21	297	168	68	19.1	25.13
12-Feb-21	271	189	60	20.37	26.16
27-Feb-21	357	240	61	18.05	36.46
16-Mar-21	273	189	56	16.67	33.88
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	357	255	70	23.21	39.06
Minimum	82	41	17	7.28	13.3
Average	223.90	149.19	41.29	12.54	21.47
Standard 24 hr	600	300		120	120
Standard Annual	430	215		80	80

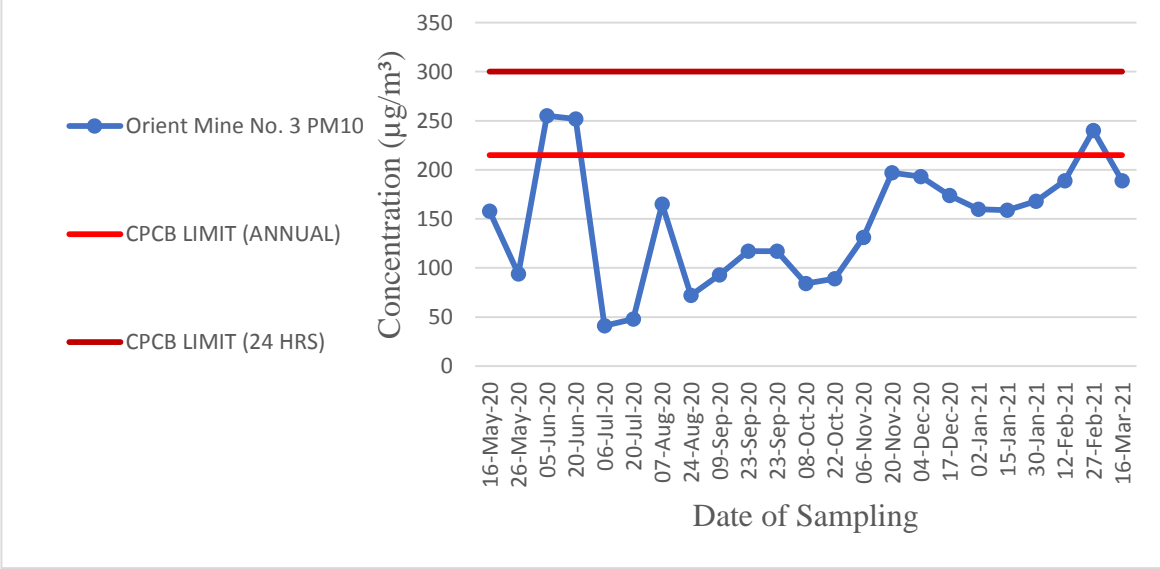
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JOB NO.750001

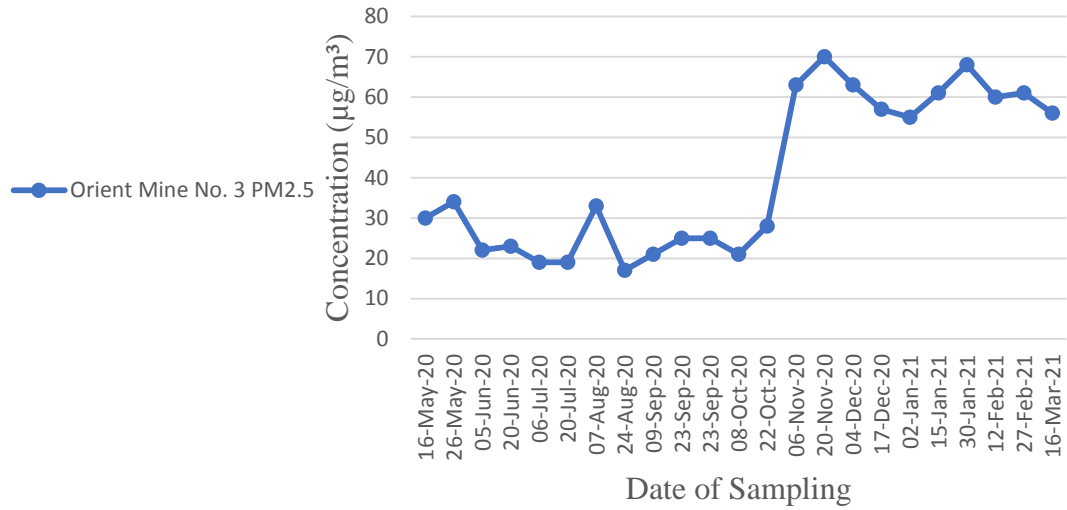
Graph Showing SPM for Orient Mine No.3



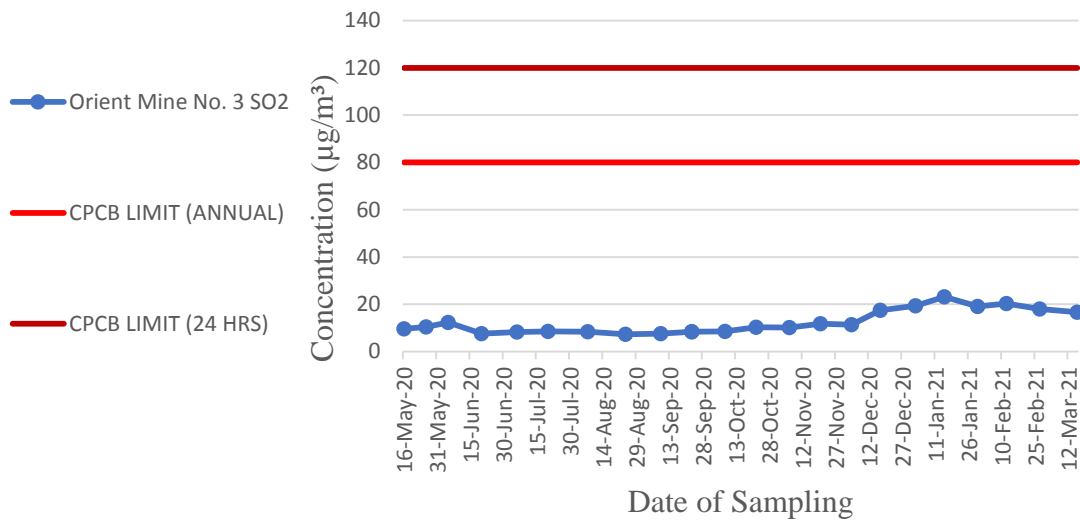
Graph Showing PM₁₀ for Orient Mine No.3

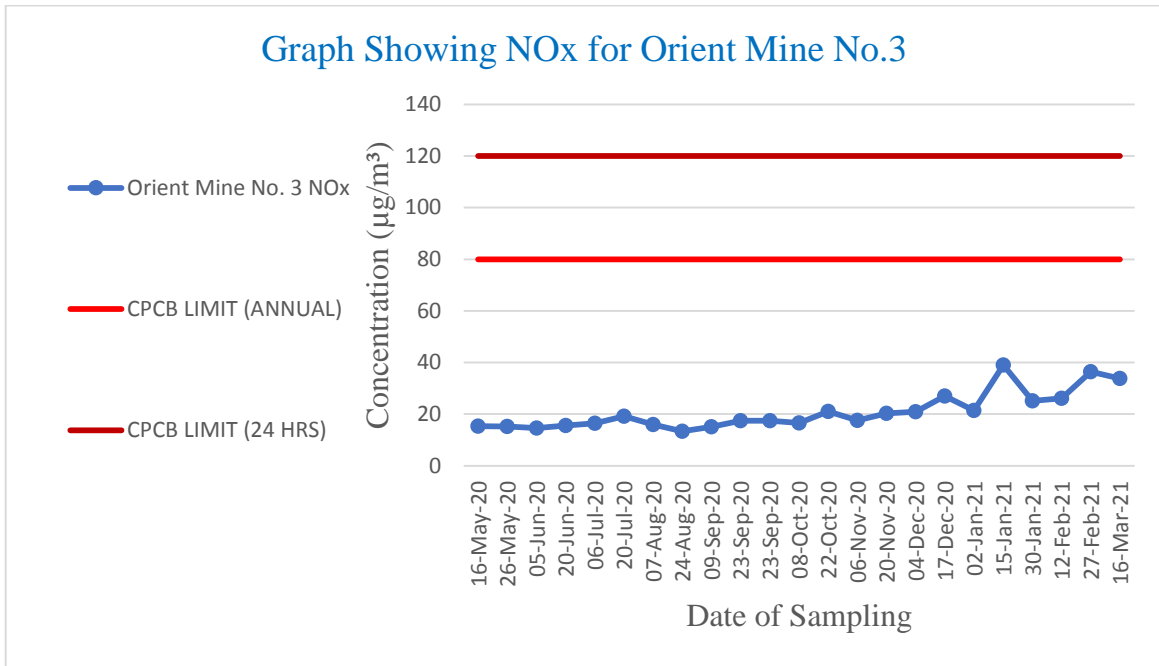


Graph Showing PM_{2.5} for Orient Mine No.3



Graph Showing SO_x for Orient Mine No.3





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Table:50

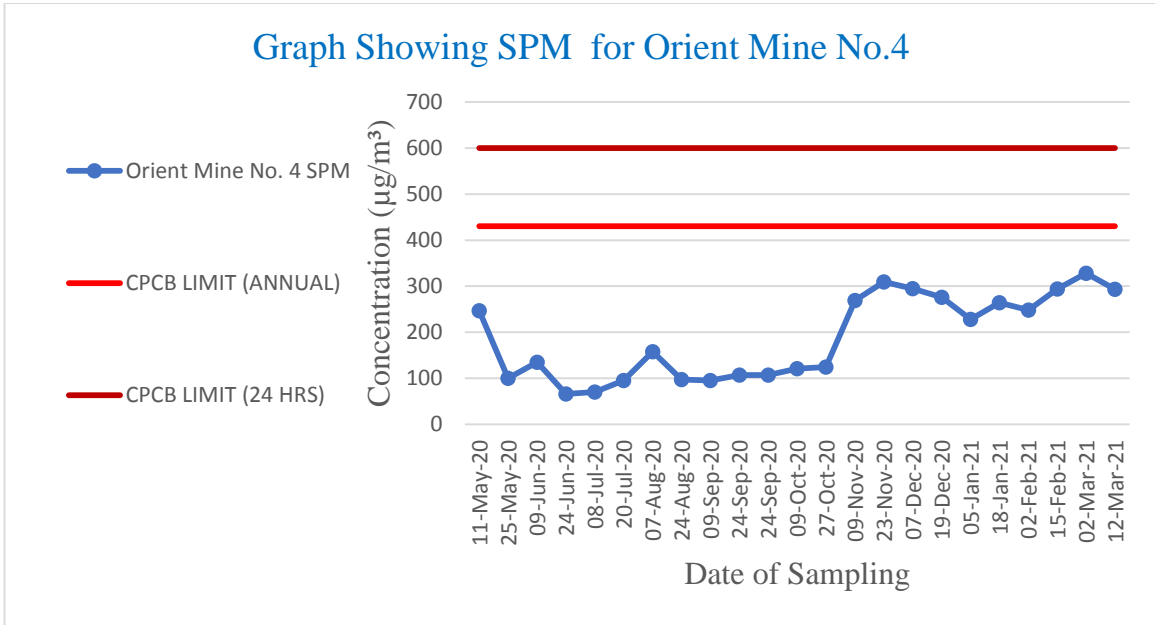
Area: Orient**Project:** Orient Mine No. 4**Monitoring Station:** Orient Mine No. 4All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
11-May-20	247	175	34	14.72	19.33
25-May-20	100	59	26	10.13	17.73
09-Jun-20	135	76	29	13.58	15.47
24-Jun-20	66	54	27	9.53	10.94
08-Jul-20	70	46	18	9.77	13.96
20-Jul-20	95	67	35	9.92	22.63
07-Aug-20	158	106	41	8.49	19.16
24-Aug-20	97	57	20	5.85	15.23
09-Sep-20	95	62	20	6.88	18.92
24-Sep-20	107	75	23	7.95	14.5
24-Sep-20	107	75	23	7.95	14.5
09-Oct-20	121	87	18	10.87	13.56
27-Oct-20	124	80	27	9.6	17.03
09-Nov-20	269	160	73	10.13	22.2
23-Nov-20	309	214	76	9.03	17.64
07-Dec-20	295	169	54	9.69	23.85
19-Dec-20	276	133	50	10.1	28.41
05-Jan-21	228	113	47	12.66	26.52
18-Jan-21	264	148	54	27.54	35.68
02-Feb-21	248	113	60	17.65	29.61
15-Feb-21	294	199	57	20.04	24.2
02-Mar-21	328	206	58	20.18	29.75
12-Mar-21	293	166	59	15.27	24.12
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	328	214	76	27.54	35.68
Minimum	66	46	18	5.85	10.94
Average	189.48	114.57	41.38	12.03	20.85
Standard 24 hr	600	300		120	120
Standard Annual	430	215		80	80

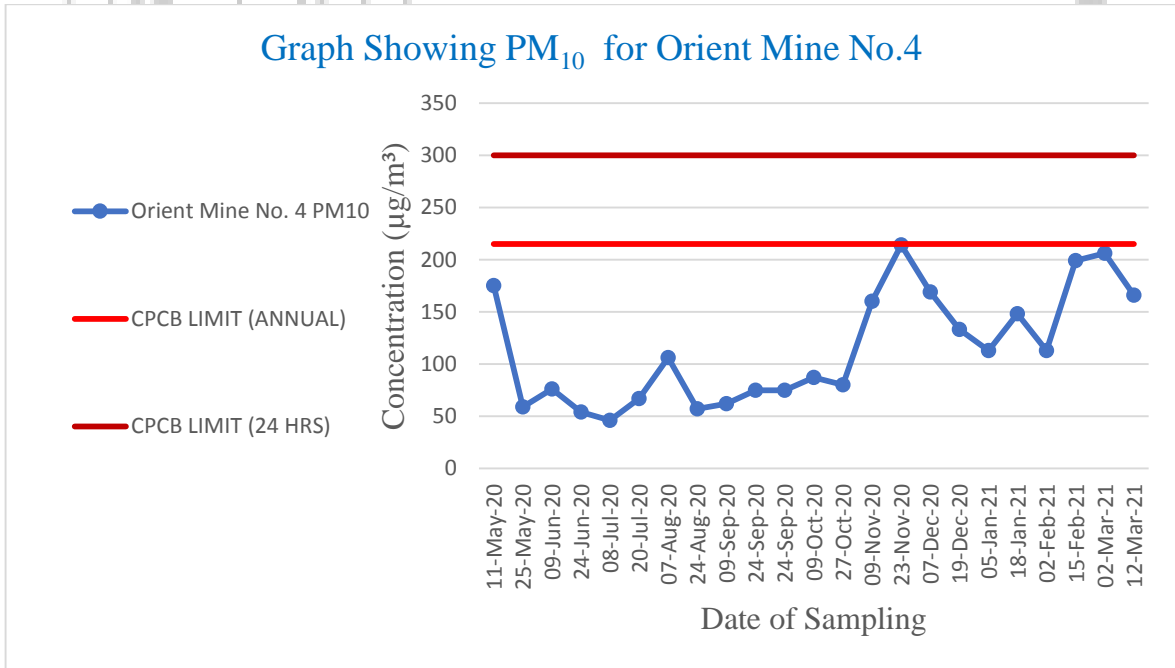
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JOB NO.750001

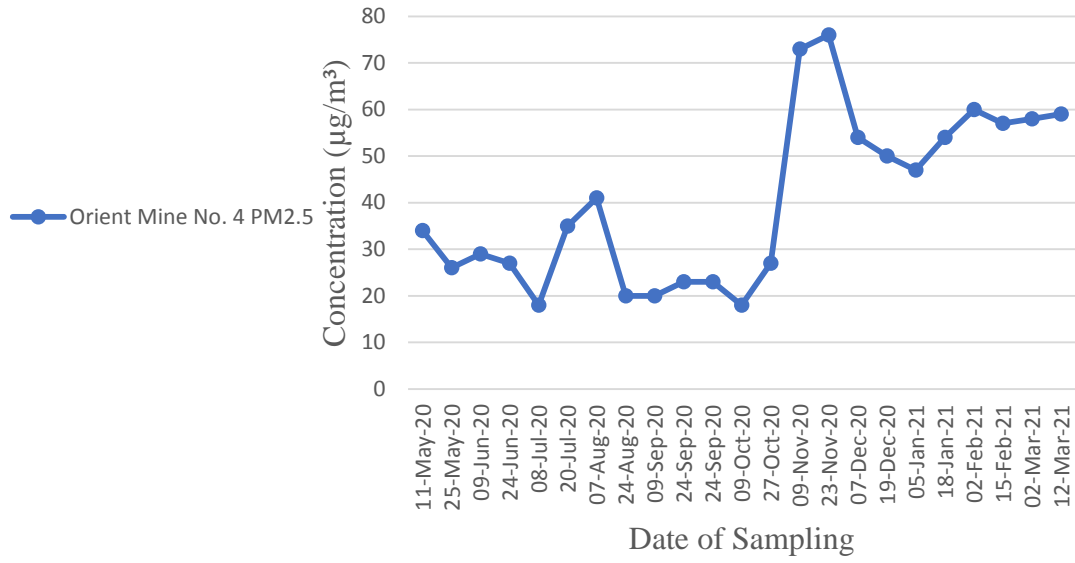
Graph Showing SPM for Orient Mine No.4



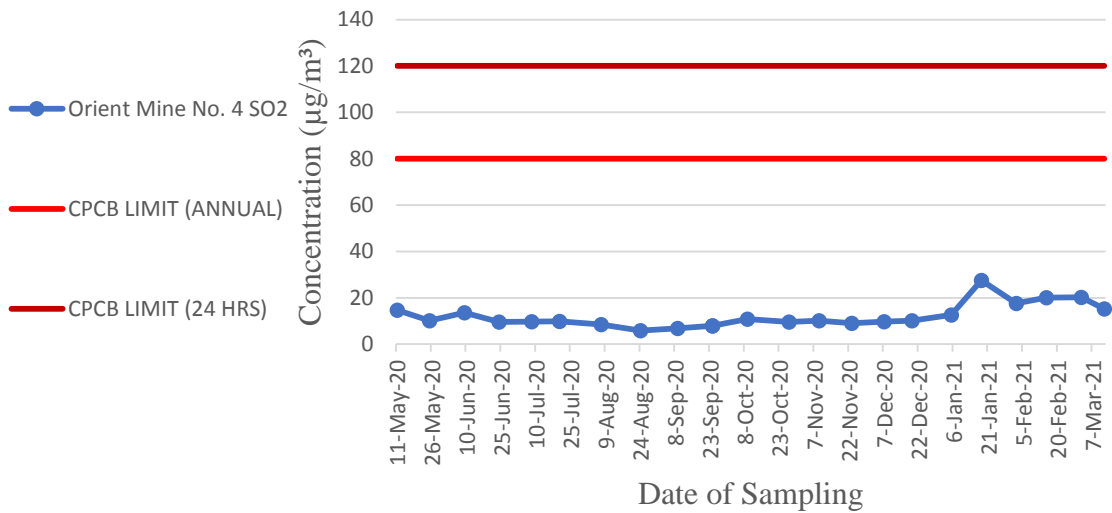
Graph Showing PM₁₀ for Orient Mine No.4

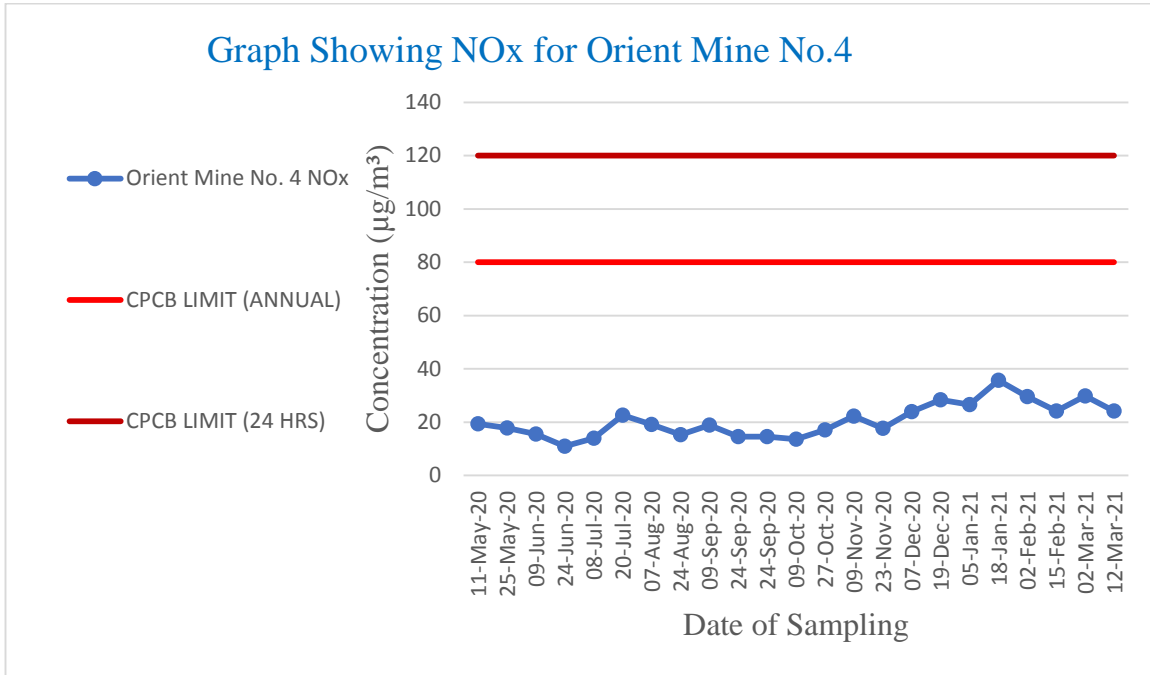


Graph Showing PM_{2.5} for Orient Mine No.4



Graph Showing SO_x for Orient Mine No.4





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JOB NO.750001

Table:51

Area: Orient

Project: Hirakand Bundia Mine (HBM)

Monitoring Station: Bundia Colony Pump House

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
22-May-20	273	207	38	7	19.91
11-Jun-20	241	146	22	13.86	19.69
25-Jun-20	53	34	27	6.5	10.21
10-Jul-20	97	67	18	12.48	14.35
27-Jul-20	92	60	22	10.02	22.67
08-Aug-20	186	123	29	9.98	13.71
21-Aug-20	99	65	23	9.1	20.1
09-Sep-20	98	64	20	9.12	21.4
23-Sep-20	73	46	18	8.43	14.7
23-Sep-20	73	46	18	8.43	14.7
08-Oct-20	221	168	30	9.38	14.67
23-Oct-20	359	228	35	10.8	20.89
07-Nov-20	242	156	53	10.79	21.4
21-Nov-20	192	144	48	11.24	21.47
05-Dec-20	196	111	45	8.49	21.86
18-Dec-20	223	142	49	15.52	29.12
04-Jan-21	167	89	46	28.37	16.71
16-Jan-21	153	94	49	40.08	20.31
01-Feb-21	209	137	46	33.6	19.21
13-Feb-21	293	169	50	34.78	17.91
01-Mar-21	290	178	55	29.24	19.06
12-Mar-21	293	185	47	27.35	17.95
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	359	228	55	40.08	29.12
Minimum	73	46	18	8.43	13.71
Average	187.16	119.58	36.89	17.22	19.06
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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JOB NO.750001

Table:52

Area: Orient

Project: Hirakand Bundia Mine (HBM)

Monitoring Station: HBI Mine

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

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
21-May-20	272	218	34	7.44	21.16
12-Jun-20	264	219	23	10.62	13.01
25-Jun-20	170	138	20	7.36	10.2
10-Jul-20	187	139	24	13.52	16.85
24-Jul-20	192	130	27	9.99	16.41
12-Aug-20	104	55	23	8.07	17.81
28-Aug-20	86	54	18	7.92	22.14
14-Sep-20	91	57	18	9.73	16.94
28-Sep-20	138	99	20	9.42	16.4
28-Sep-20	138	99	20	9.42	16.4
10-Oct-20	104	70	29	11.37	13.66
16-Oct-20	90	40	19	10.63	18.8
02-Nov-20	240	146	65	9.67	22.98
16-Nov-20	328	210	68	12.36	18.19
12-Dec-20	356	234	65	14.84	23.18
28-Dec-20	253	150	64	13.17	20.91
30-Dec-20	411	270	76	15.14	22.44
11-Jan-21	279	186	71	18.75	32.74
25-Jan-21	279	164	66	14.7	34.24
08-Feb-21	349	223	67	21.52	29.15
22-Feb-21	349	237	66	25.66	26.05
06-Mar-21	367	214	70	23.65	26.81
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	411	270	76	25.66	34.24
Minimum	86	40	18	7.92	13.66
Average	228.47	146.16	46.11	13.66	21.69
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

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JOB NO.750001

Table:53

Area: Orient

Project: Hirakand Bundia Mine (HBM)

Monitoring Station: Rampur Officers Guest House

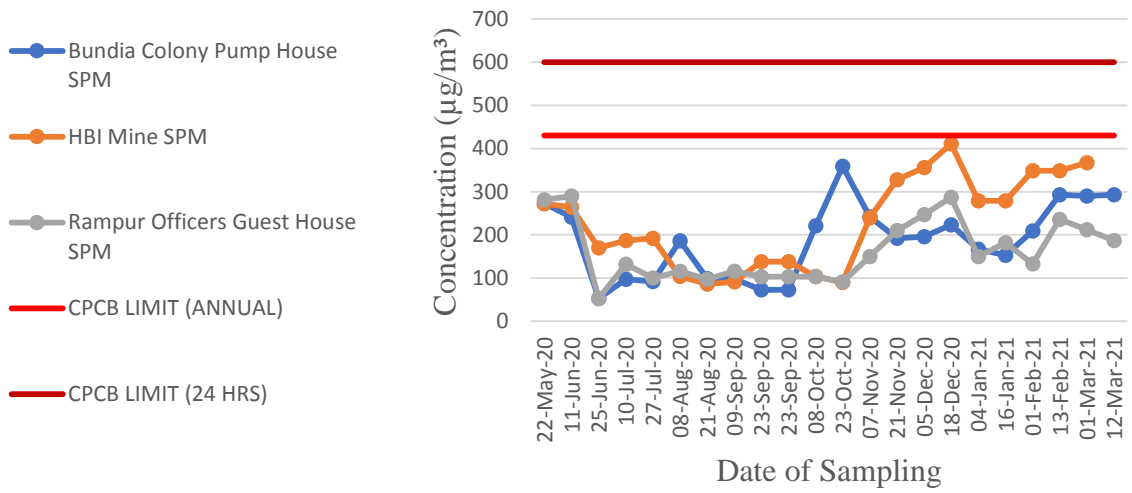
All values are in $\mu\text{g}/\text{m}^3$

Date of Sampling	SPM	PM ₁₀	PM _{2.5}	SO ₂	NO _x
23-May-20	281	223	35	9.91	23.14
11-Jun-20	290	216	26	13.92	11.07
25-Jun-20	53	35	29	9.71	14.85
10-Jul-20	132	63	17	17.67	27.09
27-Jul-20	100	67	28	12.3	14.96
12-Aug-20	116	65	23	9.75	24.42
27-Aug-20	97	67	25	9.13	17.51
14-Sep-20	116	86	23	12.26	22.25
28-Sep-20	103	77	21	11.32	18
28-Sep-20	103	77	21	11.32	18
12-Oct-20	103	67	20	12.05	19.78
28-Oct-20	91	56	19	9.85	21.63
10-Nov-20	150	85	40	11.41	16.94
24-Nov-20	210	127	43	12.22	23.95
08-Dec-20	247	146	47	12.7	24.63
21-Dec-20	287	199	56	14.23	26.81
06-Jan-21	150	81	46	17.79	26.62
19-Jan-21	182	106	44	16.93	43.61
03-Feb-21	133	78	43	27.51	32.62
16-Feb-21	236	163	46	19.57	25.3
03-Mar-21	212	127	44	18.11	36.4
17-Mar-21	187	98	41	14.13	31.83
Basic Stats	SPM	PM₁₀	PM_{2.5}	SO₂	NO_x
Maximum	287	199	56	27.51	43.61
Minimum	91	56	17	9.13	14.96
Average	155.53	96.58	34.05	14.22	24.86
Standard 24 hr	500	250		120	120
Standard Annual	430	215		80	80

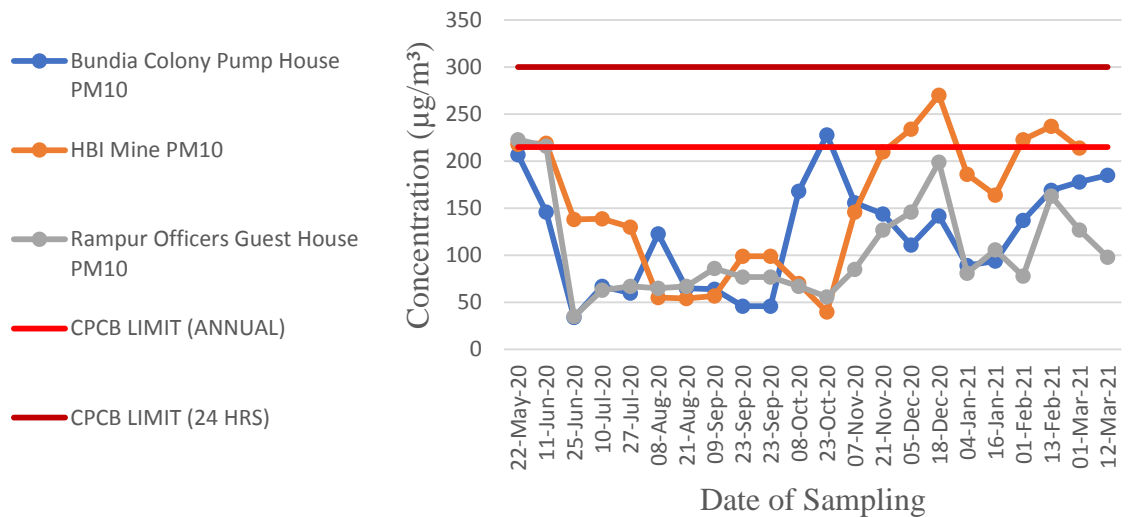
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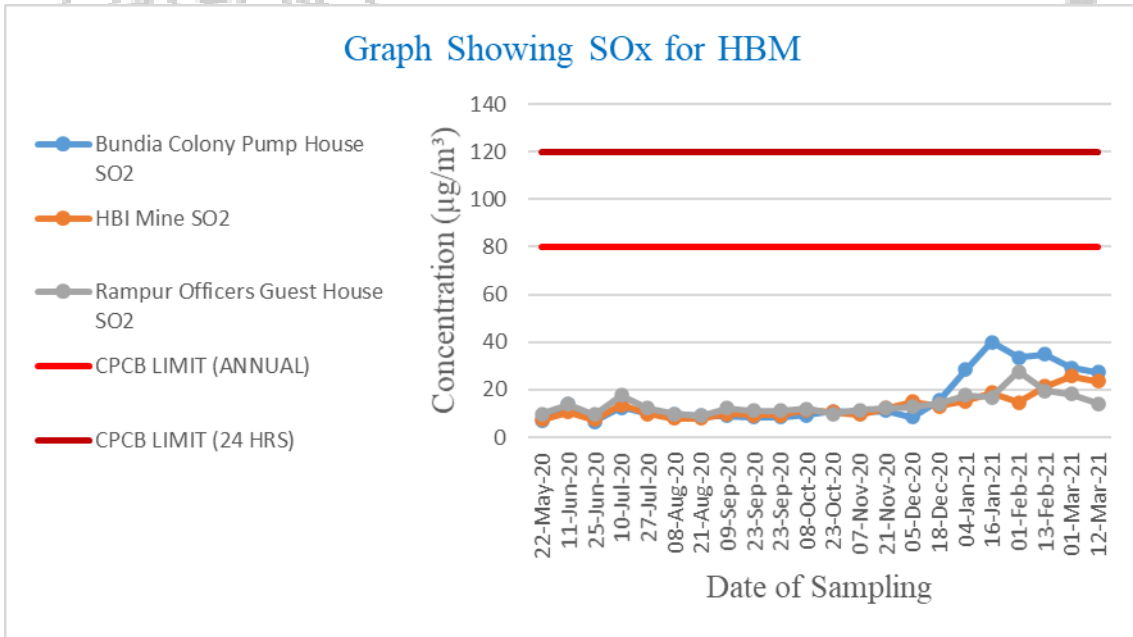
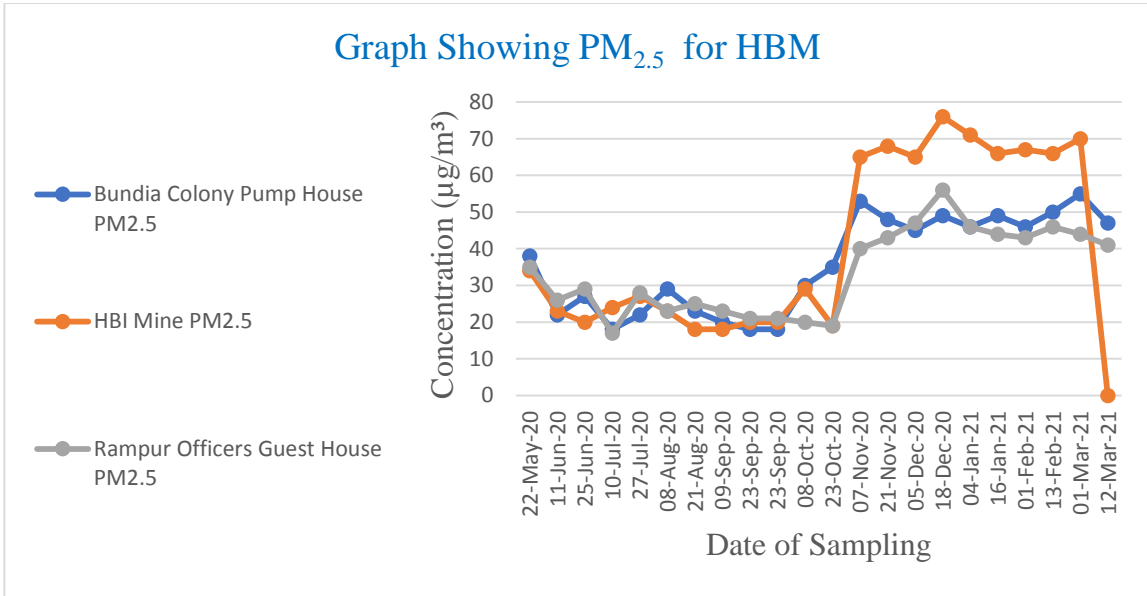
JOB NO.750001

Graph Showing SPM for HBM

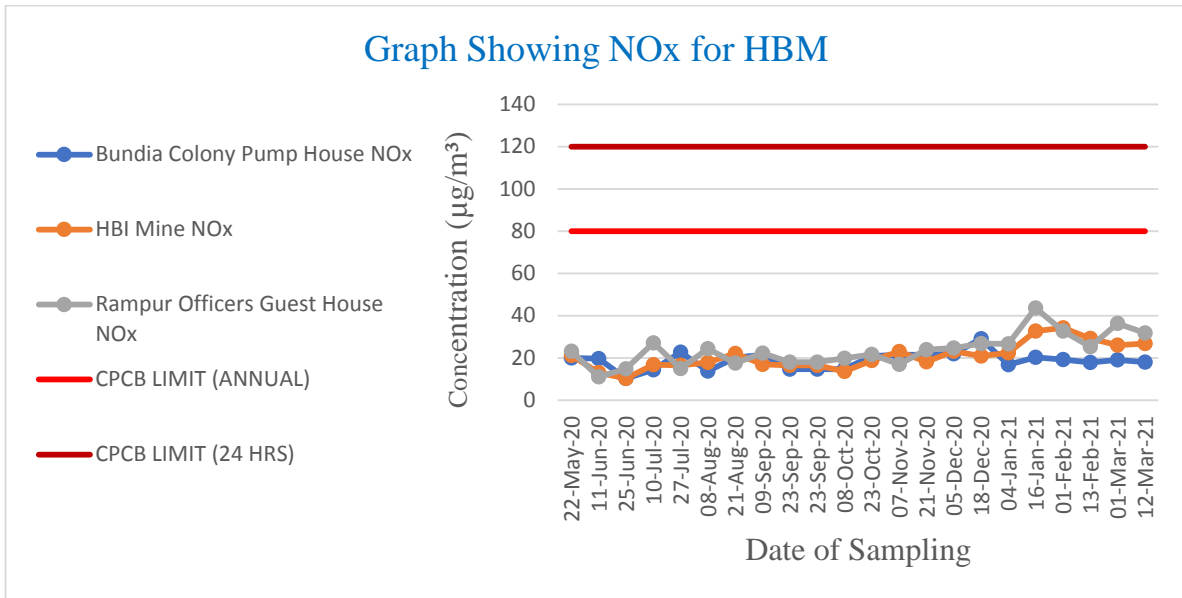


Graph Showing PM₁₀ for HBM





Graph Showing NOx for HBM



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Table:54

Area: Orient

Project: Hirakand Bundia Mine (HBM)

Monitoring Station: Rampur Sub Area (Reported Only)

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

Date of Sampling	PM _{2.5}	PM ₁₀	SPM	SO ₂	NO _x
04-Jun-20	27	89	147	12.54	17.56
05-Jun-20	25	81	147	17.16	14.36
11-Jun-20	30	87	153	12.01	13.25
12-Jun-20	21	96	116	12.17	16.89
19-Jun-20	20	89	119	15.36	15.65
20-Jun-20	26	83	120	11.21	15.34
25-Jun-20	27	46	110	10.86	15.21
26-Jun-20	27	43	73	10.6	14.4
10-Jul-20	24	89	125	9.23	15.93
11-Jul-20	16	91	132	7.49	14.36
17-Jul-20	21	57	82	14.69	16.89
18-Jul-20	17	51	79	9.92	18.12
24-Jul-20	19	60	86	9.2	22.68
25-Jul-20	21	70	91	8.66	21.35
30-Jul-20	30	47	71	13.36	15.36
31-Jul-20	19	70	96	10.07	15.8
05-Aug-20	26	65	140	9.95	16.48
06-Aug-20	22	77	151	7.51	15.21
12-Aug-20	19	80	133	8.82	17
13-Aug-20	21	90	135	8.6	22.37
20-Aug-20	29	76	115	12	17.1
21-Aug-20	33	87	106	12.35	15.64
27-Aug-20	25	67	111	5.87	16.01
28-Aug-20	22	50	98	8.32	25.67
03-Sep-20	22	55	88	9.65	18.34
04-Sep-20	28	69	106	10.29	21.26
10-Sep-20	34	88	124	9.13	17.5
11-Sep-20	29	71	115	12.36	23.25
17-Sep-20	19	67	98	7.93	18.64
18-Sep-20	18	58	85	11.06	20.87
22-Sep-20	24	76	112	7.94	18.43
23-Sep-20	26	84	120	9.02	20.95
01-Oct-20	18	52	83	9.66	16.5
03-Oct-20	23	63	96	12.01	20.5
08-Oct-20	21	67	92	9.13	15.59
09-Oct-20	24	55	95	13.2	18.03
16-Oct-20	21	65	91	13.8	16.42
17-Oct-20	19	56	80	7.87	16.64
21-Oct-20	30	82	118	10.68	19.54
22-Oct-20	25	64	98	8.67	21.53
30-Oct-20	23	61	106	8.63	19.9
31-Oct-20	28	88	133	11.74	19.3
05-Nov-20	36	69	146	7.81	19.79

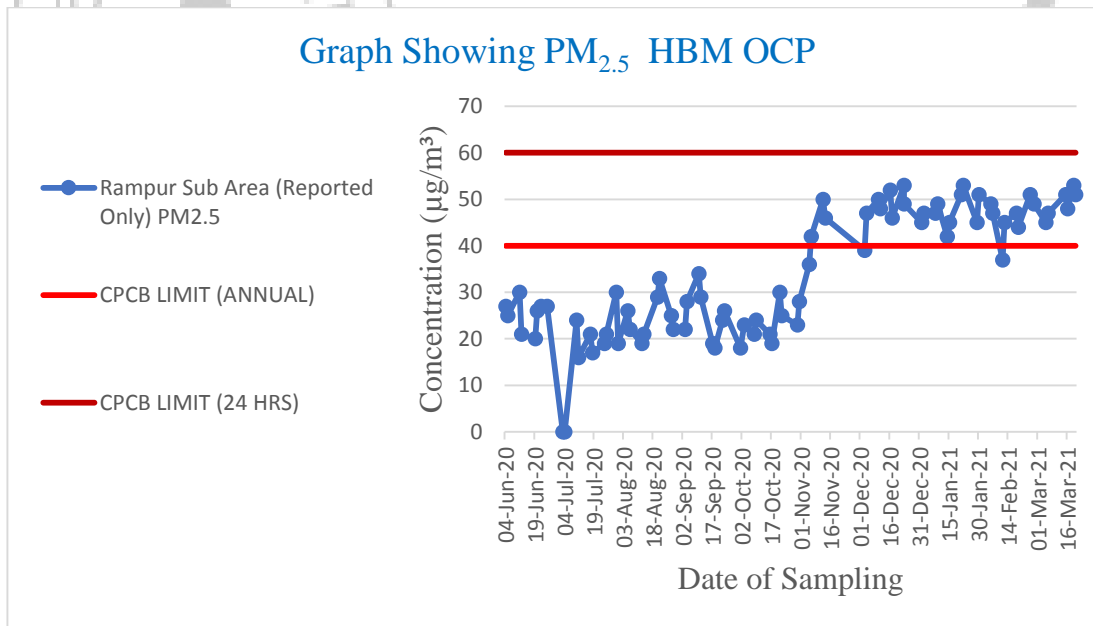
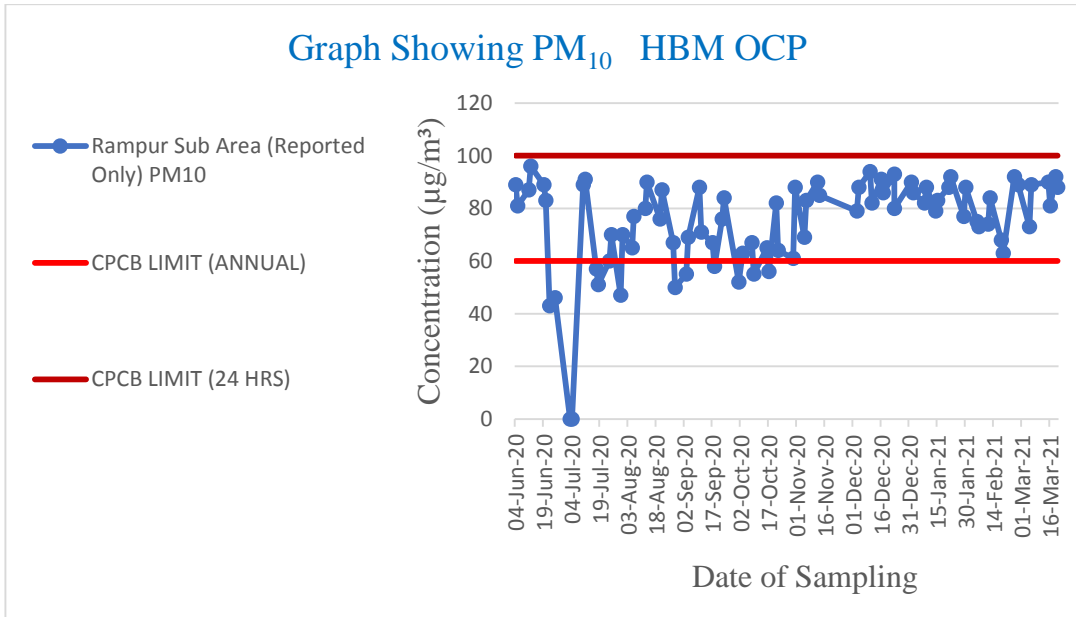
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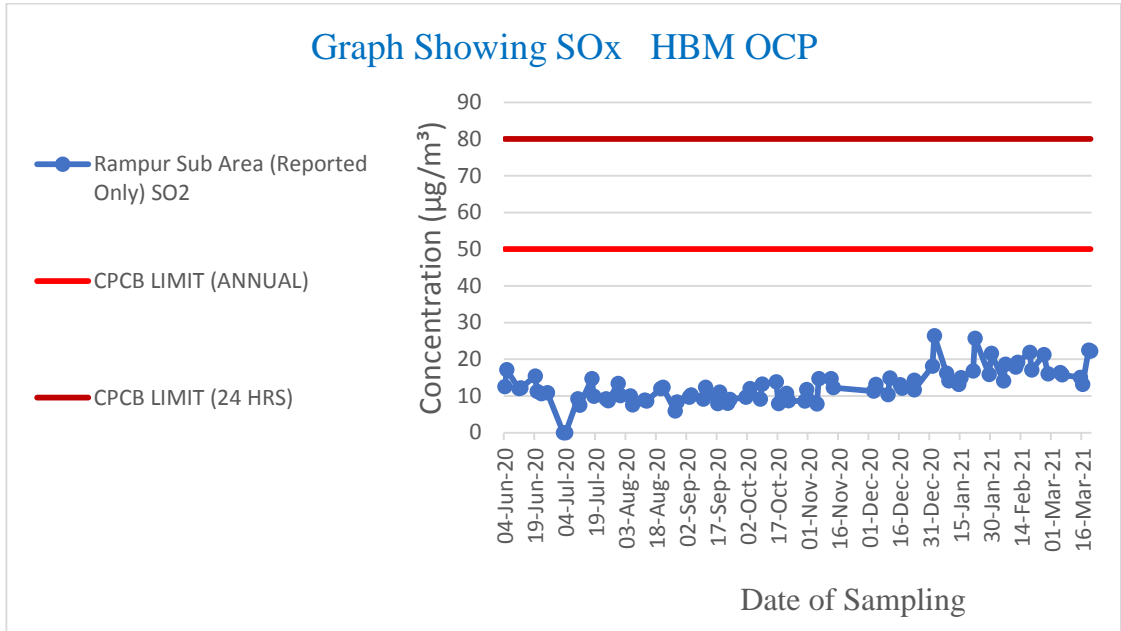
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06-Nov-20	42	83	143	14.68	26.85
12-Nov-20	50	90	156	14.74	26.04
13-Nov-20	46	85	158	12.22	23.24
03-Dec-20	39	79	135	11.33	24.89
04-Dec-20	47	88	157	13.14	27.73
10-Dec-20	50	94	158	10.3	20.09
11-Dec-20	48	82	172	14.85	47.84
16-Dec-20	52	91	176	13.02	24.34
17-Dec-20	46	86	163	12.09	22.34
23-Dec-20	49	80	151	11.66	28.72
23-Dec-20	53	93	169	14.28	23
01-Jan-21	45	90	189	18.09	26.96
02-Jan-21	47	86	175	26.41	35.05
08-Jan-21	47	82	162	16.17	24.4
09-Jan-21	49	88	178	14.05	40.65
14-Jan-21	42	79	145	13.09	35.62
15-Jan-21	45	83	172	14.93	20.06
21-Jan-21	51	88	223	16.82	33.76
22-Jan-21	53	92	208	25.69	26.63
29-Jan-21	45	77	154	15.81	34.86
30-Jan-21	51	88	161	21.61	43.8
05-Feb-21	49	75	169	14.11	34.17
06-Feb-21	47	73	178	18.62	38.55
11-Feb-21	37	74	151	17.87	25.21
12-Feb-21	45	84	187	19.19	43.17
18-Feb-21	47	68	145	21.84	30.53
19-Feb-21	44	63	129	17.07	27.95
25-Feb-21	51	92	209	21.21	43
27-Feb-21	49	89	171	15.98	34.84
05-Mar-21	45	73	180	16.38	25.32
06-Mar-21	47	89	191	15.76	31.9
15-Mar-21	51	90	195	15.03	17.25
16-Mar-21	48	81	186	13.1	15.28
19-Mar-21	53	92	206	22.48	25.28
20-Mar-21	51	88	215	22.16	22.22
Basic Stats	PM_{2.5}	PM₁₀	SPM	SO₂	NO_x
Maximum	53	96	223	26.41	47.84
Minimum	16	43	71	5.87	13.25
Average	34.56	76.49	137.68	13.13	23.12
Standard 24 hr	60	100		80	80
Standard Annual	40	60		50	40

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3.2 TABLES FOR NOISE LEVEL MONITORING DATA

Table:55

Area: Ib Valley Area

Project: Lajkura OCP

Monitoring Station: Khokelmal

DATE	DAY	NIGHT	Leq DN (dB)
24-Apr-20	65.9	61.7	64.3
09-May-20	62.7	58.4	61.1
23-May-20	65.1	59.3	63.1
08-Jun-20	64.9	60.5	63.2
22-Jun-20	66.3	60.7	64.3
06-Jul-20	63.8	58.2	61.8
22-Jul-20	64.7	60.9	63.2
08-Aug-20	62.4	58.2	60.8
22-Aug-20	63.7	58.4	61.8
08-Sep-20	63.4	58.7	61.7
22-Sep-20	61.5	58.2	60.2
07-Oct-20	62.1	57.6	60.4
21-Oct-20	64.8	59.2	62.8
10-Nov-20	66.7	61.9	64.9
23-Nov-20	63.8	60.9	62.6
08-Dec-20	62.7	58.6	61.1
21-Dec-20	63.7	61.6	62.8
04-Jan-21	63.9	59.8	62.3
18-Jan-21	62.7	57.7	60.9
04-Feb-21	64.9	59.7	63.0
20-Feb-21	64.6	62.1	63.5
03-Mar-21	63.6	57.2	61.5
16-Mar-21	64.6	57.2	62.3
Brief Statistic	DAY	NIGHT	Leq DN
Minimum	61.5	57.2	60.2
Maximum	66.7	62.1	64.9
Mean	64.0	59.4	62.3
Noise Standard	75	70	

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Table:56
Area: Ib Valley Area
Project: Lajkura OCP
Monitoring Station: Near Project Office

DATE	DAY	NIGHT	Leq DN(dB)
24-Apr-20	67.4	64.1	66.1
09-May-20	68.9	65.2	67.4
23-May-20	68.1	64.7	66.7
08-Jun-20	71.6	68.8	70.4
22-Jun-20	68.2	64.8	66.8
06-Jul-20	68.7	63.4	66.8
22-Jul-20	67.4	64.6	66.2
08-Aug-20	63.2	59.4	61.7
22-Aug-20	66.9	63.7	65.6
08-Sep-20	65.9	62.7	64.6
22-Sep-20	66.8	62.6	65.2
07-Oct-20	67.9	62.5	66.0
21-Oct-20	66.3	62.1	64.7
10-Nov-20	66.7	63.9	65.5
23-Nov-20	64.7	62.2	63.6
08-Dec-20	66.9	63.2	65.4
21-Dec-20	66.9	64.3	65.8
04-Jan-21	66.8	63.2	65.4
18-Jan-21	66.8	62.1	65.1
04-Feb-21	66.3	62.5	64.8
20-Feb-21	66.7	64.2	65.6
03-Mar-21	65.8	62.7	64.5
16-Mar-21	66.8	63.2	65.4
Brief Statistic	DAY	NIGHT	Leq DN
Minimum	63.2	59.4	61.7
Maximum	71.6	68.8	70.4
Mean	67.0	63.5	65.6
Noise Standard	75	70	

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Table:57
Area: Ib Valley Area
Project: Lajkura OCP
Monitoring Station: Near South Coal Stock

DATE	DAY	NIGHT	Leq DN(dB)
24-Apr-20	68.8	66.5	67.8
09-May-20	70	67.6	69.0
23-May-20	71.3	68.6	70.2
08-Jun-20	69.5	66.3	68.2
22-Jun-20	66.5	62.7	65.0
06-Jul-20	65.9	62.7	64.6
22-Jul-20	64.9	61.3	63.5
08-Aug-20	64.6	62.9	63.8
22-Aug-20	64.2	59.7	62.5
08-Sep-20	64.7	61.4	63.4
22-Sep-20	67.9	64.9	66.7
07-Oct-20	62.1	57.4	60.4
21-Oct-20	64.4	62.7	63.6
10-Nov-20	64.3	62.1	63.3
23-Nov-20	62.9	55.9	60.7
08-Dec-20	69.7	64.9	67.9
21-Dec-20	64.2	62.7	63.5
04-Jan-21	67.9	64.5	66.5
18-Jan-21	63.2	57.6	61.2
04-Feb-21	67.4	64.6	66.2
20-Feb-21	64.3	61.7	63.2
03-Mar-21	66.2	61.5	64.5
16-Mar-21	64.4	61.7	63.3
Brief Statistic	DAY	NIGHT	Leq DN
Minimum	62.1	55.9	60.4
Maximum	71.3	68.6	70.2
Mean	66.1	62.7	64.7
Noise Standard	75	70	

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Table:58
Area: Ib Valley Area
Project: Lajkura OCP
Monitoring Station: VIP Guest House, IB Valley

DATE	DAY	NIGHT	Leq DN(dB)
24-Apr-20	64.2	60.5	62.7
09-May-20	64.5	61.2	63.2
23-May-20	66.7	62.9	65.2
08-Jun-20	65.4	62.7	64.3
22-Jun-20	64.9	61.9	63.7
06-Jul-20	66.6	64.2	65.6
22-Jul-20	65.2	62.7	64.1
08-Aug-20	63.5	60.2	62.2
22-Aug-20	64.8	62.7	63.9
08-Sep-20	66.9	62.5	65.2
22-Sep-20	63.7	60.6	62.4
07-Oct-20	64.6	63.3	64.0
21-Oct-20	66.9	63.7	65.6
10-Nov-20	64.9	62.7	63.9
23-Nov-20	66.7	62.6	65.1
08-Dec-20	63.2	60.6	62.1
21-Dec-20	67.9	64.3	66.5
04-Jan-21	64.5	63.2	63.9
18-Jan-21	64.9	62.7	63.9
04-Feb-21	63.6	58.8	61.8
20-Feb-21	63.7	59.8	62.2
03-Mar-21	64.3	58.8	62.4
16-Mar-21	67.8	64.8	66.6
Brief Statistic	Day	Night	Leq DN
Minimum	63.2	58.8	61.8
Maximum	67.9	64.8	66.6
Mean	65.2	62.1	63.9
Noise Standard	75	70	

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Table:59
Area: Ib Valley Area
Project: Samaleswari OCP
Monitoring Station: West of the Mine

DATE	DAY	NIGHT	Leq DN(dB)
16-Mar-21	63.3	57.6	61.3
03-Mar-21	63.6	57.6	61.6
20-Feb-21	67.8	63.2	66.1
04-Feb-21	62.7	57.6	60.9
18-Jan-21	62.4	57.7	60.7
04-Jan-21	64.3	62.1	63.3
21-Dec-20	63.2	61.7	62.5
08-Dec-20	66.7	63.2	65.3
23-Nov-20	62.6	58.7	61.1
10-Nov-20	64.3	62.1	63.3
21-Oct-20	62.4	57.8	60.7
07-Oct-20	63.2	57.6	61.2
22-Sep-20	63.7	56.2	61.4
08-Sep-20	62.6	57.8	60.8
22-Aug-20	62.1	57.4	60.4
08-Aug-20	64.7	62.1	63.6
22-Jul-20	66.4	62.1	64.8
06-Jul-20	64.7	61.9	63.5
22-Jun-20	66.7	64.2	65.6
08-Jun-20	68.4	65.9	67.3
23-May-20	67.3	62.6	65.6
09-May-20	64.1	61.6	63.0
24-Apr-20	66.5	63.8	65.4
Brief Statistic	Day	Night	Leq DN
Minimum	62.1	56.2	60.4
Maximum	68.4	65.9	67.3
Mean	64.5	60.5	63.0
Noise Standard	75	70	

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Table:60
Area: Ib Valley Area
Project: Samaleswari OCP
Monitoring Station: Rampur Sub Area

DATE	DAY	NIGHT	Leq DN(dB)
16-Mar-21	63.7	59.4	62.1
03-Mar-21	66.4	63.2	65.1
20-Feb-21	64.3	62.1	63.3
04-Feb-21	65.6	62.9	64.5
18-Jan-21	67.5	64.4	66.2
04-Jan-21	62.7	59.6	61.4
21-Dec-20	64.2	62.5	63.4
08-Dec-20	64.4	61.6	63.2
23-Nov-20	62.1	57.6	60.4
10-Nov-20	63.4	61.9	62.7
21-Oct-20	64.9	57.2	62.6
07-Oct-20	64.3	60.7	62.9
22-Sep-20	62.1	57.4	60.4
08-Sep-20	66.7	64.8	65.9
22-Aug-20	67.5	65.8	66.7
08-Aug-20	65.8	63.2	64.7
22-Jul-20	66.5	63.2	65.2
06-Jul-20	66.3	60.1	64.2
22-Jun-20	67.9	63.6	66.3
08-Jun-20	67.7	64.1	66.3
23-May-20	64.7	59	62.7
09-May-20	64.3	60.4	62.8
24-Apr-20	65.8	62.6	64.5
Brief Statistic	Day	Night	Leq DN
Minimum	62.1	57.2	60.4
Maximum	67.9	65.8	66.7
Mean	65.2	61.6	63.8
Noise Standard	75	70	

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Table61
Area: Ib Valley Area
Project: Samaleswari OCP
Monitoring Station: RCP Camp

DATE	DAY	NIGHT	Leq DN(dB)
16-Mar-21	67.6	64.8	66.4
03-Mar-21	64.8	61.6	63.5
20-Feb-21	66.7	64.6	65.8
04-Feb-21	66.3	64.7	65.6
18-Jan-21	64.9	63.8	64.4
04-Jan-21	64.3	62.1	63.3
21-Dec-20	66.7	64.9	65.9
08-Dec-20	66.3	64.7	65.6
23-Nov-20	64.9	61.9	63.7
10-Nov-20	68.7	66.2	67.6
21-Oct-20	66.7	63.2	65.3
07-Oct-20	67.7	64.9	66.5
22-Sep-20	66.5	61.3	64.6
08-Sep-20	64.9	62.1	63.7
22-Aug-20	66.8	63.9	65.6
08-Aug-20	66.7	64.3	65.7
22-Jul-20	64.9	62.7	63.9
06-Jul-20	68.1	66.5	67.4
22-Jun-20	70.5	68.1	69.5
08-Jun-20	69.5	65.3	67.9
23-May-20	70.9	65.2	68.9
09-May-20	66.8	63.5	65.5
24-Apr-20	68.5	65.9	67.4
Brief Statistic	Day	Night	Leq DN
Minimum	64.3	61.3	63.3
Maximum	70.9	68.1	69.5
Mean	66.9	64.2	65.8
Noise Standard	75	70	

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Table:62
Area: Ib Valley Area
Project: Samaleswari OCP
Monitoring Station: South of the Mine

DATE	DAY	NIGHT	Leq DN(dB)
16-Mar-21	66.9	62.1	65.1
03-Mar-21	66.4	63.2	65.1
20-Feb-21	64.3	62.2	63.4
04-Feb-21	64.9	61.6	63.6
18-Jan-21	66.6	60.3	64.5
04-Jan-21	66.7	64.9	65.9
21-Dec-20	65.4	63.3	64.5
08-Dec-20	64.9	61.5	63.5
23-Nov-20	66.7	62.2	65.0
10-Nov-20	66.2	64.7	65.5
21-Oct-20	64.9	59.6	63.0
07-Oct-20	65.9	62.1	64.4
22-Sep-20	67.9	59.8	65.5
08-Sep-20	65.7	63.2	64.6
22-Aug-20	64.7	62.9	63.9
08-Aug-20	63.4	61.9	62.7
22-Jul-20	63.7	60.9	62.5
06-Jul-20	66.9	64.2	65.8
22-Jun-20	69.3	66.5	68.1
08-Jun-20	70	67.2	68.8
23-May-20	64.5	60.3	62.9
09-May-20	60.4	59.7	60.1
24-Apr-20	64.4	60.7	62.9
Brief Statistic	Day	Night	Night
Minimum	60.4	59.6	60.1
Maximum	70	67.2	68.8
Mean	65.7	62.4	64.4
Noise Standard	75	70	

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Table:63
Area: Lakhanpur Area
Project: Lakhanpur OCP
Monitoring Station: Near Lilari Nallah Pump House

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	65.9	62.7	64.6
13-May-20	64.2	61.5	63.1
27-May-20	65.2	60.1	63.4
10-Jun-20	66.4	62.7	64.9
24-Jun-20	65.4	62	64.0
11-Jul-20	65.6	62.7	64.4
29-Jul-20	65.4	63.2	64.4
11-Aug-20	61.3	58.2	60.0
26-Aug-20	66.5	63.2	65.2
12-Sep-20	64.9	62.6	63.9
26-Sep-20	65.9	62.1	64.4
10-Oct-20	64.6	62.7	63.8
29-Oct-20	65.9	62.8	64.6
13-Nov-20	62.9	57.1	60.9
27-Nov-20	63.9	60.6	62.6
10-Dec-20	67.7	63.2	66.0
23-Dec-20	64.6	62.9	63.8
05-Jan-21	64.5	62.8	63.7
19-Jan-21	66.9	62.4	65.2
05-Feb-21	64.8	62.1	63.7
18-Feb-21	64.7	62.1	63.6
03-Mar-21	67.3	63.2	65.7
18-Mar-21	66.7	62.5	65.1
Brief Statistic	Day	Night	Leq DN
Minimum	61.3	57.1	60.0
Maximum	67.7	63.2	66.0
Mean	65.3	62.0	64.0
Noise Standard	75	70	

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JOB NO.750001

Table:64
Area: Lakhanpur Area
Project: Lakhanpur OCP
Monitoring Station: Near Quarry 3

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	68.6	64.3	67.0
13-May-20	66.3	62.8	64.9
27-May-20	60.4	58.1	59.4
10-Jun-20	62.4	61.7	62.1
24-Jun-20	61.5	58.2	60.2
11-Jul-20	65.8	61.2	64.1
29-Jul-20	64.9	62.5	63.9
11-Aug-20	66.2	63.7	65.1
26-Aug-20	62.3	59.9	61.3
12-Sep-20	64.9	61.3	63.5
26-Sep-20	62.9	57.2	60.9
10-Oct-20	66.3	62.8	64.9
29-Oct-20	66.2	59.2	64.0
13-Nov-20	67.8	63.2	66.1
27-Nov-20	62.7	60.3	61.7
10-Dec-20	64.6	61.9	63.5
23-Dec-20	64.7	60.3	63.0
05-Jan-21	66.3	58.6	64.0
19-Jan-21	64.8	60.5	63.2
05-Feb-21	63.6	57.6	61.6
18-Feb-21	66.9	63.2	65.4
03-Mar-21	66.3	64.8	65.6
18-Mar-21	63.9	58.4	62.0
Brief Statistic	Day	Night	Leq DN
Minimum	60.4	57.2	59.4
Maximum	68.6	64.8	67.0
Mean	64.8	60.9	63.3
Noise Standard	75	70	

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JOB NO.750001

Table:65
Area: Lakhanpur Area
Project: Lakhanpur OCP
Monitoring Station: South West of Quarry 6

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	66.2	63.6	65.1
13-May-20	68.1	65.4	67.0
27-May-20	66.9	62.7	65.3
10-Jun-20	65.9	59.2	63.7
24-Jun-20	64.7	61.8	63.5
11-Jul-20	64.7	62.8	63.9
29-Jul-20	62.6	59.8	61.4
11-Aug-20	64.9	62.1	63.7
26-Aug-20	64.7	61.8	63.5
12-Sep-20	65.5	62.1	64.1
26-Sep-20	64.5	61.9	63.4
10-Oct-20	64.9	62.1	63.7
29-Oct-20	64.3	59.6	62.6
13-Nov-20	64.9	62.2	63.8
27-Nov-20	66.9	62.7	65.3
10-Dec-20	67.3	64.2	66.0
23-Dec-20	66.1	62.5	64.7
05-Jan-21	67.8	64.3	66.4
19-Jan-21	62.5	58.8	61.0
05-Feb-21	62.1	59.4	61.0
18-Feb-21	68.5	63.2	66.6
03-Mar-21	64.8	59.3	62.9
18-Mar-21	66.2	62.7	64.8
Brief Statistic	Day	Night	Leq DN
Minimum	62.1	58.8	61.0
Maximum	68.5	65.4	67.0
Mean	65.4	61.9	64.1
Noise Standard	75	70	

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JOB NO.750001

Table:66
Area: Lakhanpur Area
Project: Lakhanpur OCP
Monitoring Station: West of Quarry 3

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	62.4	58.1	60.8
13-May-20	67.6	64.9	66.5
27-May-20	64.7	61.3	63.3
10-Jun-20	65.1	60.5	63.4
24-Jun-20	66.7	63.9	65.5
11-Jul-20	67.3	63.5	65.8
29-Jul-20	66.2	61.7	64.5
11-Aug-20	63.7	60.8	62.5
26-Aug-20	64.2	60.7	62.8
12-Sep-20	62.7	59.4	61.4
26-Sep-20	64.7	61.8	63.5
10-Oct-20	63.5	60.2	62.2
29-Oct-20	64.7	57.3	62.4
13-Nov-20	66.9	63.9	65.7
27-Nov-20	60.6	56.3	57.6
10-Dec-20	64.6	61.9	63.5
23-Dec-20	62.9	57.6	61.0
05-Jan-21	62.4	57.6	60.6
19-Jan-21	62.7	58.3	61.0
05-Feb-21	65.7	64.9	65.3
18-Feb-21	63.6	57.8	61.6
03-Mar-21	64.5	62.7	63.7
18-Mar-21	64.3	61.6	63.2
Brief Statistic	Day	Night	Leq DN
Minimum	60.6	56.3	57.6
Maximum	67.6	64.9	66.5
Mean	64.4	60.7	62.9
Noise Standard	75	70	

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JOB NO.750001

Table:67
Area: Lakhanpur Area
Project: Belpahar OCP
Monitoring Station: East of the Mine

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	66.8	61.5	64.9
13-May-20	64.8	61.4	63.4
27-May-20	62.5	60.7	61.7
10-Jun-20	64.9	59.7	63.0
24-Jun-20	65.3	61.9	63.9
11-Jul-20	67.5	64.3	66.2
29-Jul-20	64.8	62.5	63.8
11-Aug-20	63.9	57.4	61.8
26-Aug-20	62.2	58.4	60.7
12-Sep-20	63.9	60.4	62.5
26-Sep-20	66.9	63.2	65.4
10-Oct-20	66.7	63.9	65.5
29-Oct-20	66.5	63.9	65.4
13-Nov-20	64.6	63.9	64.3
27-Nov-20	63.5	59.4	61.9
10-Dec-20	64.7	62.1	63.6
23-Dec-20	65.9	63.9	65.0
05-Jan-21	63.2	60.5	62.1
19-Jan-21	65.7	62.3	64.3
05-Feb-21	65.7	62.3	64.3
18-Feb-21	63.2	58.6	61.5
03-Mar-21	65.9	62.7	64.6
18-Mar-21	66.5	63.2	65.2
Brief Statistic	Day	Night	Leq DN
Minimum	62.2	57.4	60.7
Maximum	67.5	64.3	66.2
Mean	65.0	61.7	63.7
Noise Standard	75	70	

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JOB NO.750001

Table:68
Area: Lakhanpur Area
Project: Belpahar OCP
Monitoring Station: Near Central Workshop

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	68.7	65.8	67.5
13-May-20	68.9	66.7	67.9
27-May-20	70.8	65.4	68.9
10-Jun-20	70.2	68.4	69.4
24-Jun-20	68.7	63.4	66.8
11-Jul-20	66.2	61.7	64.5
29-Jul-20	66.6	62.4	65.0
11-Aug-20	65.3	62.7	64.2
26-Aug-20	64.9	61.7	63.6
12-Sep-20	66.8	63.2	65.4
26-Sep-20	65.8	62.1	64.3
10-Oct-20	68.3	63.4	66.5
29-Oct-20	67.8	63.4	66.1
13-Nov-20	67.4	62.8	65.7
27-Nov-20	66.7	63.9	65.5
10-Dec-20	65.3	63.2	64.4
23-Dec-20	67.8	64.2	66.4
05-Jan-21	64.6	62.1	63.5
19-Jan-21	67.6	63.6	66.0
05-Feb-21	64.6	63.9	64.3
18-Feb-21	66.8	63.5	65.5
03-Mar-21	68.3	65.7	67.2
18-Mar-21	64.8	61.8	63.6
Brief Statistic	Day	Night	Leq DN
Minimum	64.6	61.7	63.5
Maximum	70.8	68.4	69.4
Mean	67.1	63.7	65.7
Noise Standard	75	70	

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JOB NO.750001

Table:69
Area: Lakhapur Area
Project: Belpahar OCP
Monitoring Station: Near Magazine House

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	67.4	64.9	66.3
13-May-20	63.7	60.2	62.3
27-May-20	64.4	60.1	62.8
10-Jun-20	65.7	60.4	63.8
24-Jun-20	65.9	60.2	63.9
11-Jul-20	66.8	64.5	65.8
29-Jul-20	64.2	61.7	63.1
11-Aug-20	60.4	57.1	59.1
26-Aug-20	62.1	59.1	60.9
12-Sep-20	63.8	58.3	61.9
26-Sep-20	62.9	58.3	61.2
10-Oct-20	62.5	60.2	61.5
29-Oct-20	65.7	62.1	64.3
13-Nov-20	66.7	63.9	65.5
27-Nov-20	64.2	61.5	63.1
10-Dec-20	63.6	59.4	62.0
23-Dec-20	64.9	62.7	63.9
05-Jan-21	66.9	63.2	65.4
19-Jan-21	66.9	62.3	65.2
05-Feb-21	66.6	64.7	65.8
18-Feb-21	64.6	62.9	63.8
03-Mar-21	66.3	64.8	65.6
18-Mar-21	68.3	64.6	66.8
Brief Statistic	Day	Night	Leq DN
Minimum	60.4	57.1	59.1
Maximum	68.3	64.9	66.8
Mean	65.0	61.6	63.6
Noise Standard	75	70	

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JOB NO.750001

Table:70
Area: Lakhanpur Area
Project: Belpahar OCP
Monitoring Station: South of the Mine

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	65.7	63.4	64.7
13-May-20	66.2	64.5	65.4
27-May-20	66.7	59.3	64.4
10-Jun-20	62.5	58.1	60.8
24-Jun-20	61.8	58.6	60.5
11-Jul-20	63.2	60.7	62.1
29-Jul-20	65.5	63.2	64.5
11-Aug-20	62.7	60.3	61.7
26-Aug-20	64.9	62.5	63.9
12-Sep-20	66.7	64.5	65.7
26-Sep-20	64.6	60.1	62.9
10-Oct-20	64.6	62.3	63.6
29-Oct-20	64.9	61.4	63.5
13-Nov-20	68.6	62.2	66.5
27-Nov-20	65.8	63.2	64.7
10-Dec-20	66.6	64.9	65.8
23-Dec-20	63.8	62.1	63.0
05-Jan-21	64.9	63.2	64.1
19-Jan-21	63.2	61.2	62.3
05-Feb-21	63.2	60.5	62.1
18-Feb-21	66.9	64.7	65.9
03-Mar-21	67.8	63.2	66.1
18-Mar-21	64.7	62.1	63.6
Brief Statistic	Day	Night	Leq DN
Minimum	61.8	58.1	60.5
Maximum	68.6	64.9	66.5
Mean	65.0	62.0	63.8
Noise Standard	75	70	

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Table:71
Area: Lakhapur Area
Project: Lilari OCP
Monitoring Station: Near Lilari Magazine House

DATE	DAY	NIGHT	LeqDN(dB)
25-Apr-20	67.8	64.2	66.4
13-May-20	68.9	66.3	67.8
27-May-20	69.7	65.4	68.1
10-Jun-20	68.6	64.8	67.1
24-Jun-20	69.5	66.2	68.2
11-Jul-20	67.1	64.8	66.1
29-Jul-20	66.9	64.3	65.8
11-Aug-20	64.7	56.3	62.3
26-Aug-20	64.9	57.5	62.6
12-Sep-20	62.7	56.4	60.6
26-Sep-20	63.7	60.9	62.5
10-Oct-20	62.7	59.3	61.3
29-Oct-20	63.5	57.4	61.4
13-Nov-20	63.7	60.9	62.5
27-Nov-20	61.7	57.6	60.1
10-Dec-20	64.9	59.3	62.9
23-Dec-20	66.5	64.2	65.5
05-Jan-21	66.8	64.3	65.7
19-Jan-21	64.3	60.6	62.8
05-Feb-21	66.6	64.3	65.6
18-Feb-21	66.7	64.7	65.8
03-Mar-21	66.8	64.7	65.9
18-Mar-21	68.3	64.7	66.9
Brief Statistic	Day	Night	Leq DN
Minimum	61.7	56.3	60.1
Maximum	69.7	66.3	68.2
Mean	66.0	62.1	64.5
Noise Standard	75	70	

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Table:72
Area: Basundhara OCP
Project: Garjanbahal OCP
Monitoring Station: 200 KV Substation

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	69	66.3	67.8
06-May-20	72	68.6	70.6
20-May-20	71	67.5	69.5
02-Jun-20	71	68.9	69.9
17-Jun-20	70	68.7	69.5
01-Jul-20	68	64.7	66.6
16-Jul-20	69	66.3	67.8
04-Aug-20	65	61.6	63.5
19-Aug-20	66	62.7	64.9
02-Sep-20	67	61.6	65.3
16-Sep-20	67	62.4	65.1
03-Oct-20	68	63.2	66.2
17-Oct-20	68	64.2	66.2
05-Nov-20	68	63.2	66.2
19-Nov-20	67	61.6	65.0
12-Dec-20	68	64.2	66.2
22-Dec-20	66	62.9	65.0
06-Jan-21	66	64.9	65.7
20-Jan-21	66	62.7	64.5
08-Feb-21	66	64.8	65.6
10-Feb-21	67	63.2	65.3
06-Mar-21	65	62.1	63.6
17-Mar-21	67	64.3	65.8
Brief Statistic	Day	Night	Leq DN
Minimum	65	61.6	63.5
Maximum	72	68.9	70.6
Mean	67.6	64.4	66.3
Noise Standard	75	70	

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JOB NO.750001

Table:73
Area: Basundhara OCP
Project: Garjanbahal OCP
Monitoring Station: North West of Coalface (Camp office)

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	65	62.8	64.0
06-May-20	68	66.9	67.7
20-May-20	66	63.2	65.1
02-Jun-20	68	66.1	67.4
17-Jun-20	64	61.9	63.3
01-Jul-20	67	62.3	65.0
16-Jul-20	64	61.7	63.1
04-Aug-20	67	63.2	65.3
19-Aug-20	67	62.4	65.5
02-Sep-20	67	62.7	65.3
16-Sep-20	69	61.2	66.4
03-Oct-20	65	62.6	63.8
17-Oct-20	66	62.7	64.6
05-Nov-20	65	62.7	63.9
19-Nov-20	64	59.9	62.1
12-Dec-20	65	62.5	63.7
22-Dec-20	65	63.4	64.1
06-Jan-21	65	62.5	63.9
20-Jan-21	64	60.8	62.5
08-Feb-21	65	61.5	63.4
10-Feb-21	69	62.6	66.6
06-Mar-21	66	63.6	64.8
17-Mar-21	65	60.6	63.2
Brief Statistic	Day	Night	Leq DN
Minimum	64	59.9	62.1
Maximum	69	66.9	67.7
Mean	65.8	62.6	64.5
Noise Standard	75	70	

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JOB NO.750001

Table:74
Area: Basundhara OCP
Project: Kulda OCP
Monitoring Station: External CT Road

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	66	61.7	64.0
06-May-20	64	60.6	62.7
20-May-20	67	62.5	65.2
02-Jun-20	65	62.6	64.2
17-Jun-20	66	61.5	64.5
01-Jul-20	65	63.7	64.5
16-Jul-20	64	60.9	62.5
04-Aug-20	62	59.6	61.2
19-Aug-20	61	57.9	60.0
02-Sep-20	65	58.2	62.6
16-Sep-20	65	60.2	63.2
03-Oct-20	65	61.9	63.5
17-Oct-20	64	60.7	62.8
05-Nov-20	65	61.9	63.5
19-Nov-20	63	57.6	61.0
12-Dec-20	63	56.4	60.5
22-Dec-20	62	57.6	60.0
06-Jan-21	63	62.1	62.7
20-Jan-21	63	58.9	61.6
08-Feb-21	67	63.5	65.5
10-Feb-21	63	56.7	60.6
06-Mar-21	64	57.2	62.1
17-Mar-21	64	60.6	62.3
Brief Statistic	Day	Night	Leq DN
Minimum	61	56.4	60.0
Maximum	67	63.7	65.5
Mean	64.1	60.2	62.6
Noise Standard	75	70	

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JOB NO.750001

Table:75
Area: Basundhara OCP
Project: Kulda OCP
Monitoring Station: North of CHP

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	64	60.5	62.4
06-May-20	60	58.1	59.4
20-May-20	64	60	62.5
02-Jun-20	64	59.4	62.2
17-Jun-20	64	58.4	62.0
01-Jul-20	64	62.3	63.3
16-Jul-20	65	62.5	63.7
04-Aug-20	61	57.9	59.9
19-Aug-20	63	59.4	61.7
02-Sep-20	63	56.9	60.6
16-Sep-20	62	57.1	60.5
03-Oct-20	63	56.4	61.0
17-Oct-20	64	61.1	62.7
05-Nov-20	64	59.6	62.2
19-Nov-20	64	62.1	63.4
12-Dec-20	65	61.8	63.6
22-Dec-20	64	61.8	63.0
06-Jan-21	65	63.7	64.2
20-Jan-21	65	56.3	62.5
08-Feb-21	65	61.6	63.4
10-Feb-21	65	59.4	63.0
06-Mar-21	66	59.6	64.1
17-Mar-21	65	62.1	63.7
Brief Statistic	Day	Night	Leq DN
Minimum	60	56.3	59.4
Maximum	66	63.7	64.2
Mean	63.8	59.9	62.4
Noise Standard	75	70	

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JOB NO.750001

Table:76
Area: Mahalaxmi
Project: Basundhara (W) OCP
Monitoring Station: CHP, CT Road

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	64.3	61.7	63.2
06-May-20	66.7	62.4	65.1
20-May-20	66.5	63.4	65.2
02-Jun-20	65	60.1	63.2
17-Jun-20	64.3	61.7	63.2
01-Jul-20	64.3	60.9	62.9
16-Jul-20	64.7	63.2	64.0
04-Aug-20	63.7	60.4	62.4
19-Aug-20	66.4	63.2	65.1
02-Sep-20	63.7	57.5	61.6
16-Sep-20	63.9	56.2	61.6
03-Oct-20	63.2	59.7	61.8
17-Oct-20	64.7	62.1	63.6
05-Nov-20	66.9	64.2	65.8
19-Nov-20	64.7	62.7	63.8
12-Dec-20	64.6	62.1	63.5
22-Dec-20	66.7	63.2	65.3
06-Jan-21	63.2	56.7	61.1
20-Jan-21	64.7	62.1	63.6
08-Feb-21	64.6	62.3	63.6
10-Feb-21	64.7	62.1	63.6
06-Mar-21	64.3	61.7	63.2
17-Mar-21	63.2	58.4	61.4
Brief Statistic	Day	Night	Leq DN
Minimum	63.2	56.2	61.1
Maximum	66.9	64.2	65.8
Mean	64.7	61.2	63.4
Noise Standard	75	70	

Table:77
Area: Mahalaxmi
Project: Basundhara (W) OCP
Monitoring Station: Near Internal Dump & CT Road of Basundhara (W)
 OCP/Siarmal

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	67.5	64.2	66.2
06-May-20	70.5	67.9	69.4
20-May-20	68.6	65.9	67.5
02-Jun-20	71.9	67.5	70.2
17-Jun-20	67.2	63.6	65.8
01-Jul-20	64.9	60.2	63.2
16-Jul-20	61.3	59.8	60.6
04-Aug-20	61.2	56.9	59.6
19-Aug-20	62.9	56.4	60.8
02-Sep-20	62.1	59.7	61.1
16-Sep-20	62.7	55.4	60.4
03-Oct-20	62.6	57.4	60.7
17-Oct-20	63.7	60.3	62.3
05-Nov-20	63.7	57.9	61.7
19-Nov-20	62.1	59.6	61.0
12-Dec-20	64.6	59.8	62.8
22-Dec-20	64.3	62.1	63.3
06-Jan-21	64.6	63.2	64.0
20-Jan-21	63.2	57.3	61.2
08-Feb-21	63.7	57.4	61.6
10-Feb-21	64.4	58.6	62.4
06-Mar-21	63.2	57.6	61.2
17-Mar-21	63.7	58.6	61.9
Brief Statistic	Day	Night	Leq DN
Minimum	61.2	55.4	59.6
Maximum	71.9	67.9	70.2
Mean	64.5	60.3	63.0
Noise Standard	75	70	

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Table:78
Area: Mahalaxmi
Project: Basundhara (W) OCP
Monitoring Station: North of the Sardega Railway Siding

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	67.7	65.4	66.7
06-May-20	68.9	65	67.4
20-May-20	68.4	64.7	66.9
02-Jun-20	68.9	66.3	67.8
17-Jun-20	66.7	64.3	65.7
01-Jul-20	68.3	68.1	68.2
16-Jul-20	67.9	65.4	66.8
04-Aug-20	61.3	59.4	60.5
19-Aug-20	64.7	62.1	63.6
02-Sep-20	62.4	56.8	60.4
16-Sep-20	62.5	58.9	61.1
03-Oct-20	63.9	57.6	61.8
17-Oct-20	66.9	63.2	65.4
05-Nov-20	66.8	62.1	65.1
19-Nov-20	63.7	60.7	62.5
12-Dec-20	63.2	58.7	61.5
22-Dec-20	63.7	58.6	61.9
06-Jan-21	64.6	62.1	63.5
20-Jan-21	66.6	62.7	65.1
08-Feb-21	64.4	62.5	63.6
10-Feb-21	63.6	59.8	62.1
06-Mar-21	63.7	58.8	61.9
17-Mar-21	64.3	61.7	63.2
Brief Statistic	Day	Night	Leq DN
Minimum	61.3	56.8	60.4
Maximum	68.9	68.1	68.2
Mean	65.4	62.0	64.0
Noise Standard	75	70	

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Table:79
Area: Mahalaxmi
Project: Basundhara (W) OCP
Monitoring Station: Near Internal Dump & CT Road of
 Bhasundhara(W)OCP/Gopalpur

DATE	DAY	NIGHT	LeqDN(dB)
27-Apr-20	66.4	62.9	65.0
06-May-20	68.2	66.1	67.3
20-May-20	70.9	65.3	68.9
02-Jun-20	70.5	67.6	69.3
17-Jun-20	68.6	66.9	67.8
01-Jul-20	67.5	62.3	65.6
16-Jul-20	65.3	62.1	64.0
04-Aug-20	66.9	60.5	64.8
19-Aug-20	65.3	62.9	64.3
02-Sep-20	66.2	60.7	64.3
16-Sep-20	64.9	61.7	63.6
03-Oct-20	65.6	62.1	64.2
17-Oct-20	67.9	65.3	66.8
05-Nov-20	68.7	63.9	66.9
19-Nov-20	62.9	58.9	61.3
12-Dec-20	66.6	64.3	65.6
22-Dec-20	64.2	61.9	63.2
06-Jan-21	66.9	64.3	65.8
20-Jan-21	67.9	63.6	66.3
08-Feb-21	66.8	63.5	65.5
10-Feb-21	67.6	63.2	65.9
06-Mar-21	66.8	60.3	64.7
17-Mar-21	67.6	63.2	65.9
Brief Statistic	Day	Night	Leq DN
Minimum	62.9	58.9	61.3
Maximum	70.9	67.6	69.3
Mean	67.0	63.2	65.5
Noise Standard	75	70	

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

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	67.5	64.3	66.2
09-May-20	67.6	64.2	66.2
23-May-20	69.5	65.7	68.0
08-Jun-20	67.6	64.8	66.4
22-Jun-20	67.6	64.8	66.4
06-Jul-20	67.3	62.5	65.5
22-Jul-20	66.8	63.5	65.5
08-Aug-20	67.3	60.1	65.0
22-Aug-20	66.9	64.5	65.9
08-Sep-20	64.2	57.8	62.1
22-Sep-20	64.7	62.6	63.8
07-Oct-20	65.9	62.4	64.5
21-Oct-20	64.7	61.9	63.5
10-Nov-20	64.8	62.1	63.7
23-Nov-20	66.8	62.4	65.1
10-Dec-20	66.3	64.7	65.6
23-Dec-20	66.9	64.7	65.9
06-Jan-21	66.6	64.3	65.6
20-Jan-21	65.9	63.2	64.8
04-Feb-21	66.8	64.9	66.0
20-Feb-21	66.7	62.1	65.0
06-Mar-21	64.2	62.2	63.3
16-Mar-21	66.7	63.2	65.3
Brief Statistic	Day	Night	Leq DN
Minimum	64.2	57.8	62.1
Maximum	69.5	65.7	68.0
Mean	66.5	63.2	65.2
Noise Standard	75	70	

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

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	64.6	59.7	62.8
09-May-20	62.4	60.7	61.6
23-May-20	64.4	60.9	63.0
08-Jun-20	60.4	58.2	59.4
22-Jun-20	64.9	61.7	63.6
06-Jul-20	64.2	61.7	63.1
22-Jul-20	63.4	60.6	62.2
08-Aug-20	62.7	59.4	61.4
22-Aug-20	67.6	63.2	65.9
08-Sep-20	62.2	59.6	61.1
22-Sep-20	65.9	63.4	64.8
07-Oct-20	62.6	58.3	61.0
21-Oct-20	63.9	62.4	63.2
10-Nov-20	66.9	63.7	65.6
23-Nov-20	63.2	61.7	62.5
10-Dec-20	63.9	58.8	62.1
23-Dec-20	64.8	62.1	63.7
06-Jan-21	63.2	60.3	62.0
20-Jan-21	62.1	57.7	60.4
04-Feb-21	64.8	57.7	62.6
20-Feb-21	64.3	58.7	62.3
06-Mar-21	63.6	56.4	61.3
16-Mar-21	64.9	61.5	63.5
Brief Statistic	Day	Night	Leq DN
Minimum	60.4	56.4	59.4
Maximum	67.6	63.7	65.9
Mean	64.0	60.4	62.6
Noise Standard	75	70	

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

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	68.4	65.2	67.1
09-May-20	68.9	66.6	67.9
23-May-20	70.1	67.5	69.0
08-Jun-20	68.9	64.6	67.3
22-Jun-20	68.3	60.4	65.9
06-Jul-20	66.5	62.3	64.9
22-Jul-20	67.2	62.1	65.4
08-Aug-20	65.8	63.7	64.9
22-Aug-20	65.3	63.5	64.5
08-Sep-20	63.5	57.2	61.4
22-Sep-20	64.8	60.9	63.3
07-Oct-20	64.9	61.7	63.6
21-Oct-20	65.7	63.5	64.7
10-Nov-20	67.6	64.9	66.5
23-Nov-20	67.9	62.5	66.0
10-Dec-20	64.4	62.7	63.6
23-Dec-20	65.3	63.7	64.6
06-Jan-21	64.9	60.6	63.3
20-Jan-21	63.8	61.6	62.8
04-Feb-21	65.4	62.3	64.1
20-Feb-21	67.6	63.2	65.9
06-Mar-21	65.9	62.7	64.6
16-Mar-21	65.8	63.2	64.7
Brief Statistic	Day	Night	Leq DN
Minimum	63.5	57.2	61.4
Maximum	70.1	67.5	69.0
Mean	66.4	62.9	65.0
Noise Standard	75	70	

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Table:83
Area: Orient
Project: HBI Mine
Monitoring Station: HBI Mine

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	66.1	63.6	65.0
09-May-20	67.2	64.1	65.9
23-May-20	68.9	65.3	67.5
08-Jun-20	70.4	68.9	69.7
22-Jun-20	65.1	63.7	64.5
06-Jul-20	67.7	64.2	66.3
22-Jul-20	64.9	60.2	63.2
08-Aug-20	66.3	59.2	64.1
22-Aug-20	66.6	62.9	65.1
08-Sep-20	64.9	62.8	64.0
22-Sep-20	63.9	58.7	62.0
07-Oct-20	66.6	62.9	65.1
21-Oct-20	66.4	60.3	64.3
10-Nov-20	66.5	63.2	65.2
23-Nov-20	65.3	63.2	64.4
10-Dec-20	65.3	62.6	64.2
23-Dec-20	64.9	62.1	63.7
06-Jan-21	63.6	59.8	62.1
21-Jan-21	65.3	63.4	64.5
04-Feb-21	67.6	63.5	66.0
20-Feb-21	64.9	60.8	63.3
06-Mar-21	66.8	64.2	65.7
16-Mar-21	66.7	64.3	65.7
Brief Statistic	Day	Night	Leq DN
Minimum	63.6	58.7	62.0
Maximum	70.4	68.9	69.7
Mean	66.2	62.8	64.8
Noise Standard	75	70	

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Table:84
Area: Orient
Project: HBI Mine
Monitoring Station: Bundia Colony Pump House

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	64.7	60.4	63.1
09-May-20	62.4	60.9	61.7
23-May-20	64.2	59.6	62.5
08-Jun-20	65.8	61.7	64.2
22-Jun-20	64.7	61.3	63.3
06-Jul-20	65.9	62.5	64.5
22-Jul-20	63.7	59.6	62.1
08-Aug-20	62.7	56.4	60.6
22-Aug-20	63.6	58.4	61.7
08-Sep-20	66.8	63.7	65.5
22-Sep-20	62.5	56.3	60.4
07-Oct-20	63.3	62.7	63.0
21-Oct-20	64.9	61.2	63.4
10-Nov-20	67.6	64.3	66.3
23-Nov-20	63.7	60.9	62.5
10-Dec-20	63.6	60.5	62.3
23-Dec-20	65.8	63.2	64.7
06-Jan-21	66.9	62.2	65.2
21-Jan-21	62.7	57.7	60.9
04-Feb-21	64.9	60.2	63.2
20-Feb-21	63.2	59.2	61.6
06-Mar-21	64.6	62.5	63.7
16-Mar-21	68.8	63.2	66.8
Brief Statistic	Day	Night	Leq DN
Minimum	62.4	56.3	60.4
Maximum	68.8	64.3	66.8
Mean	64.7	60.8	63.2
Noise Standard	75	70	

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Table:85
Area: Orient
Project: HBI Mine
Monitoring Station: Rampur Officer's Guest House

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	63.9	59.7	62.3
09-May-20	60.7	59.4	60.1
23-May-20	63.7	58.5	61.8
08-Jun-20	63.9	60.4	62.5
22-Jun-20	61.4	57.9	60.0
06-Jul-20	64.8	62.6	63.8
22-Jul-20	64.3	62.9	63.7
08-Aug-20	63.3	57.2	61.2
22-Aug-20	65.9	62.9	64.7
08-Sep-20	64.3	62.1	63.3
22-Sep-20	64.2	59.6	62.5
07-Oct-20	65.8	61.4	64.1
21-Oct-20	67.3	62.2	65.5
10-Nov-20	63.2	60.9	62.2
23-Nov-20	62.1	60.6	61.4
10-Dec-20	67.7	64.2	66.3
23-Dec-20	64.7	60.8	63.2
06-Jan-21	66.7	63.2	65.3
21-Jan-21	63.9	60.6	62.6
04-Feb-21	63.7	59.2	62.0
20-Feb-21	64.6	61.3	63.3
06-Mar-21	66.7	63.2	65.3
16-Mar-21	64.9	61.7	63.6
Brief Statistic	Day	Night	Leq DN
Minimum	60.7	57.2	60.0
Maximum	67.7	64.2	66.3
Mean	64.4	61.0	63.1
Noise Standard	75	70	

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Table:86
Area: Orient
Project: Orient Mine No.4
Monitoring Station: Orient Mine No.4

DATE	DAY	NIGHT	LeqDN(dB)
29-Apr-20	62.5	60.8	61.7
09-May-20	64.6	60.7	63.1
23-May-20	66.4	62.9	65.0
08-Jun-20	66.2	62.8	64.8
22-Jun-20	67.6	63.2	65.9
06-Jul-20	66.7	63.1	65.3
22-Jul-20	66.9	64.2	65.8
08-Aug-20	62.9	56.7	60.8
22-Aug-20	66.7	61.2	64.8
08-Sep-20	64.7	62.5	63.7
22-Sep-20	61.6	57.8	60.1
07-Oct-20	66.7	61.3	64.8
21-Oct-20	61.2	57.3	59.7
10-Nov-20	66.9	63.2	65.4
23-Nov-20	67.8	62.9	66.0
10-Dec-20	62.1	56.3	60.1
23-Dec-20	63.2	61.7	62.5
06-Jan-21	67.5	64.3	66.2
21-Jan-21	62.6	58.3	61.0
04-Feb-21	66.6	63.7	65.4
20-Feb-21	63.6	58.7	61.8
06-Mar-21	64.8	61.4	63.4
Brief Statistic	Day	Night	Leq DN
Minimum	61.2	56.3	59.7
Maximum	67.8	64.3	66.2
Mean	65.0	61.1	63.5
Noise Standard	75	70	

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Figure 3 Fogging Machine in MCL mine

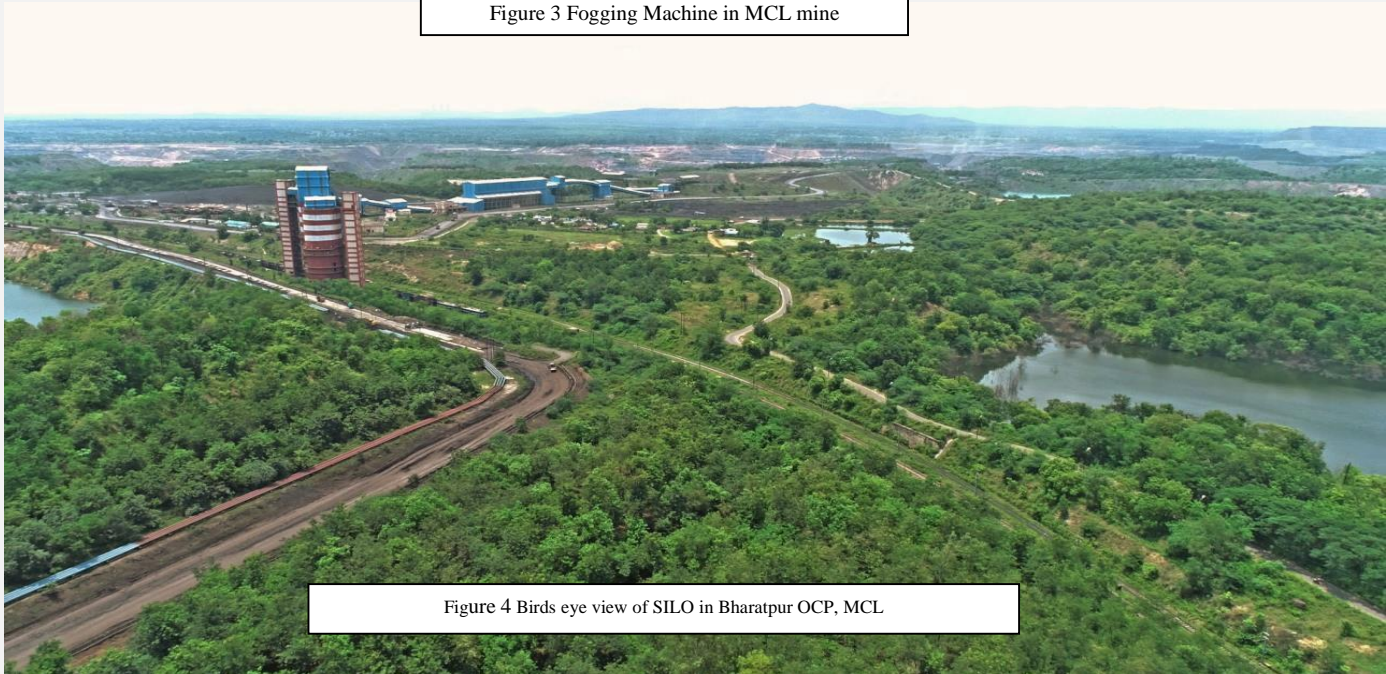


Figure 4 Birds eye view of SILO in Bharatpur OCP, MCL

Source: EGS Report 2019-2020, CIL

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EFFLUENT QUALITY

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3.3 TABLES FOR EFFLUENT QUALITY DATA

Table:87

Area: Ib valley

Project: Samleswari OCP

Monitoring station: Outlet of Sedimentation Pond (MDTP)

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	5.53	<4.0	22	52
14-May-20	6.52	<4.0	22	48
28-May-20	8.2	<4.0	20	36
13-Jun-20	6.84	<4.0	20	44
27-Jun-20	5.61	<4.0	26	56
15-Jul-20	6.44	<4.0	38	28
31-Jul-20	6.89	<4.0	42	32
13-Aug-20	6.61	<4.0	28	16
29-Aug-20	5.58	<4.0	38	28
12-Sep-20	6.91	<4.0	28	16
30-Sep-20	6.87	<4.0	16	12
14-Oct-20	7.25	<4.0	74	56
31-Oct-20	6.85	<4.0	44	32
13-Nov-20	7.22	<4.0	34	24
28-Nov-20	7.12	<4.0	54	32
10-Dec-20	7.11	<4.0	22	24
25-Dec-20	7.26	<4.0	34	20
13-Jan-21	6.53	<4.0	18	52
28-Jan-21	6.69	<4.0	32	52
13-Feb-21	6.88	<4.0	20	32
20-Feb-21	6.95	<4.0	22	48
12-Mar-21	6.78	<4.0	24	52
23-Mar-21	6.75	<4.0	24	40

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:88

Area: Ib valley**Project:** Samleswari OCP**Monitoring station:** Inlet of Sedimentation Pond (MDTP)

Date of Sampling	pH	Oil & Grese	TSS	COD
13-Jun-20	6.45	<4.0	28	60
12-Sep-20	6.81	<4.0	34	20
10-Dec-20	6.86	<4.0	54	60

Table:89

Area: Ib valley**Project:** Samleswari OCP**Monitoring station:** Oil & Grease Trap Outlet

Date of Sampling	pH	Oil & Grese	TSS	COD
13-Jun-20	6.56	<4.0	24	40
12-Sep-20	7.2	<4.0	32	20
10-Dec-20	7.18	<4.0	34	32
12-Mar-21	6.83	<4.0	22	48

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:90
Area: Ib valley
Project: Samleswari OCP
Monitoring station: DETP/STP Outlet

Date of Sampling	pH	TSS	BOD
30-Apr-20	6.51	26	<2.0
14-May-20	7.18	36	<2.0
28-May-20	8.24	18	<2.0
13-Jun-20	6.4	30	<2.0
27-Jun-20	7.34	30	<2.0
15-Jul-20	7.2	30	<2.0
31-Jul-20	7.01	36	<2.0
13-Aug-20	6.12	32	<2.0
29-Aug-20	6.6	52	<2.0
12-Sep-20	6.94	40	<2.0
30-Sep-20	7.45	44	<2.0
14-Oct-20	7.28	34	<2.0
31-Oct-20	7.04	28	<2.0
13-Nov-20	7.22	32	<2.0
28-Nov-20	6.87	44	<2.0
10-Dec-20	7.01	26	<2.0
26-Dec-20	7.34	30	<2.0
13-Jan-21	7.99	20	<2.0
28-Jan-21	8.05	24	<2.0
13-Feb-21	6.76	22	<2.0
20-Feb-21	6.58	24	<2.0
12-Mar-21	7.95	26	<2.0
23-Mar-21	7.99	32	<2.0

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:91
Area: Ib valley
Project: Samleswari OCP
Monitoring station: Mine Sump water

Date of Sampling	pH	Oil & Grese	TSS	COD
14-May-20	6.07			
30-Sep-20	5.61			
28-Nov-20	7.4			
10-Dec-20	6.84			
26-Dec-20	7.22			
01-Jan-21	7.14	<4.0	22	16
17-Jan-21	7.2	<4.0	28	24
13-Feb-21	6.83	<4.0	24	36
27-Feb-21	6.74	<4.0	28	48
12-Mar-21	6.65	<4.0	24	40
23-Mar-21	5.56	<4.0	16	48

Table:92
Area: Ib valley
Project: Lajkura OCP
Monitoring station: Inlet of Oil and Grease Trap

Date of Sampling	pH	Oil & Grese	TSS	COD
13-Jun-20	5.62	<4.0	32	56
12-Sep-20	6.84	<4.0	42	28
10-Dec-20	6.74	<4.0	52	48
12-Mar-21	6.72	<4.0	36	84

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:93

Area: Ib valley**Project:** Samleswari OCP**Monitoring station:** DETP/STP Inlet

Date of Sampling	pH	TSS	BOD
14-May-20	7.11	44	3.1
13-Aug-20	6.05	44	2.2
13-Nov-20	6.85	44	<2.0
13-Feb-21	6.51	36	2.8

Table:94

Area: Ib valley**Project:** Lajkura OCP**Monitoring station:** Outlet of Oil and Grease Trap

Date of Sampling	pH	Oil & Grese	TSS	COD
14-May-20	7.4	<4.0	24	40
13-Aug-20	7.1	<4.0	48	40
13-Nov-20	7.49	<4.0	54	44
13-Feb-21	6.95	<4.0	20	44

Table:95

Area: Ib valley**Project:** Lajkura OCP**Monitoring station:** Inlet of Oil and Grease Trap

Date of Sampling	pH	Oil & Grese	TSS	COD
14-May-20	7.5	<4.0	34	76
13-Aug-20	6.41	4.4	94	104
13-Nov-20	7.55	<4.0	64	52
13-Feb-21	7.98	<4.0	32	56

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:96
Area: Ib valley
Project: Lajkura OCP
Monitoring station: Inlet of MDTP

Date of Sampling	pH	Oil & Grease	TSS	COD	BOD
14-May-20	4.09		38		2.9
13-Jun-20	5.5		28		<2.0
27-Jun-20	6.58		20		<2.0
13-Aug-20	5.68	<4.0	58	44	
13-Nov-20	7.46	<4.0	46	32	
13-Feb-21	5.61	<4.0	28	52	

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

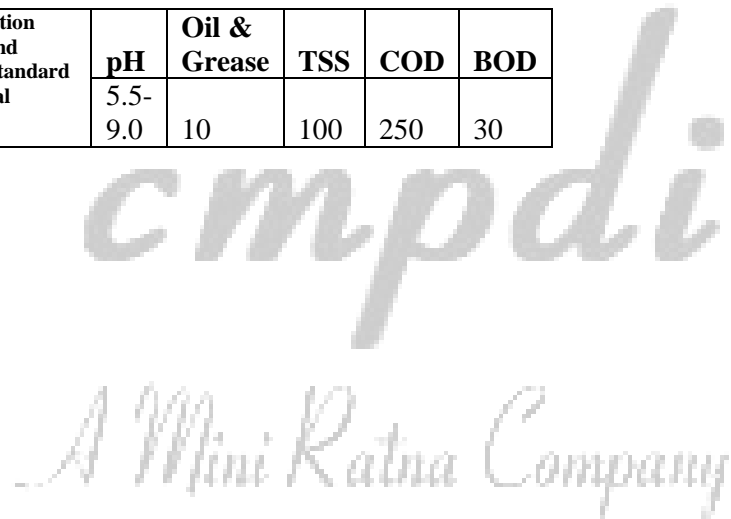
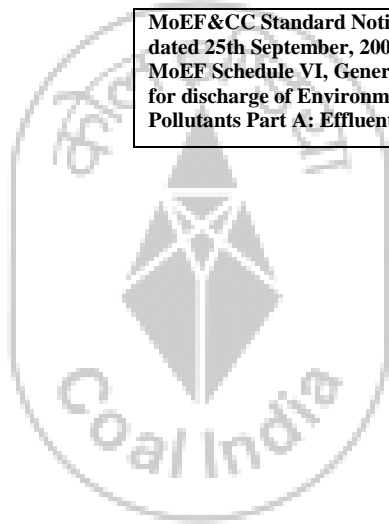


Table:97
Area: Ib valley
Project: Lajkura OCP
Monitoring station: Outlet of MDTP

Date of Sampling	pH	Oil & Grease	TSS	COD	BOD
25-Apr-20	5.51	<4.0	28	44	
14-May-20	4.35		24		2.9
28-May-20	7.35		28		<2.0
13-Jun-20	5.55		26		<2.0
27-Jun-20	7.39		18		<2.0
15-Jul-20	6.16	<4.0	46	32	
31-Jul-20	6.56	<4.0	52	36	
13-Aug-20	6.02	<4.0	46	32	
13-Aug-20	6.02	<4.0	46	32	
29-Aug-20	6.86	<4.0	44	24	
12-Sep-20	5.68	<4.0	38	24	
30-Sep-20	6.53	<4.0	66	40	
14-Oct-20	3.32	<4.0	32	16	
31-Oct-20	3.44	<4.0	74	60	
13-Nov-20	7.64	<4.0	32	24	
28-Nov-20	6.58	<4.0	26	16	
10-Dec-20	7.45	<4.0	48	36	
25-Dec-20	7.79	<4.0	34	24	
13-Jan-21	6.01	<4.0	32	80	
28-Jan-21	6.02	<4.0	22	84	
13-Feb-21	5.52	<4.0	20	36	
20-Feb-21	5.8	<4.0	22	44	
12-Mar-21	3.31	<4.0	26	56	
23-Mar-21	3.36	<4.0	26	60	

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:98
Area: Ib valley
Project : Lajkura OCP
Monitoring station: STP Inlet

Date of Sampling	pH	TSS	BOD
14-May-20	8	36	3.2
13-Aug-20	6.67	44	2.1
13-Nov-20	7.2	54	2.7
13-Feb-21	6.31	38	2.7

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

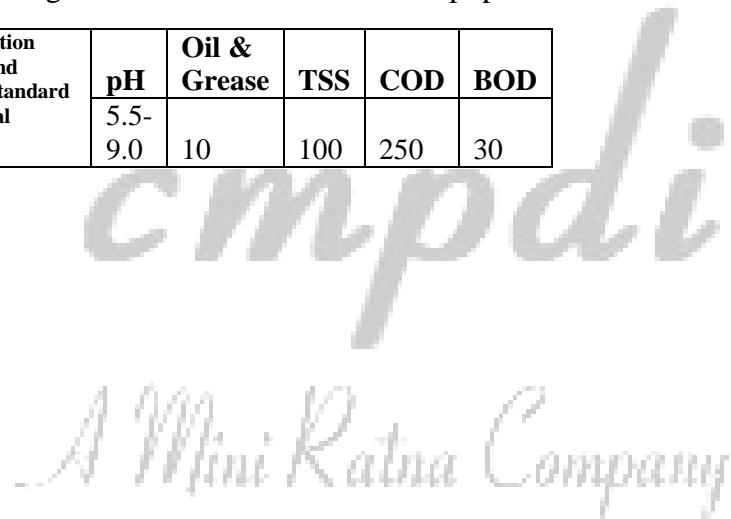
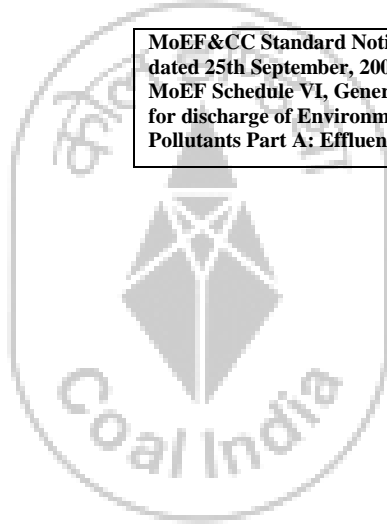


Table:99
Area: Ib valley
Project : Lajkura OCP
Monitoring station: STP Outlet

Date of Sampling	pH	TSS	BOD
25-Apr-20	7.16	36	<2.0
14-May-20	7.23	22	<2.0
28-May-20	7.31	24	<2.0
27-Jun-20	6.74	20	<2.0
13-Jul-20	7.02	20	<2.0
15-Jul-20	7.42	42	<2.0
31-Jul-20	7.12	36	<2.0
13-Aug-20	7.25	24	<2.0
29-Aug-20	6.43	34	<2.0
12-Sep-20	Dry		
30-Sep-20	6.77	28	<2.0
14-Oct-20	Under Maintenance		
31-Oct-20	Under Maintenance		
13-Nov-20	7.49	34	<2.0
28-Nov-20	7.09	40	<2.0
10-Dec-20	3.99	26	<2.0
26-Dec-20	3.18	22	<2.0
13-Jan-21	8.08	26	<2.0
28-Jan-21	7.1	38	<2.0
13-Feb-21	6.17	22	<2.0
20-Feb-21	6.11	20	<2.0
12-Mar-21	3.32	30	<2.0
23-Mar-21	3.39	24	<2.0

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:100
Area: Ib valley
Project: Lajkura OCP
Monitoring station: Mine sump water

Date of Sampling	pH
14-May-20	3.82
30-Sep-20	5.84
28-Nov-20	7.46
10-Dec-20	3.03
20-Feb-21	6.81

Table:101
Area: Ib valley
Project: Lajkura OCP
Monitoring station: Surface Pond

Date of Sampling	pH	Oil & Grese	TSS	COD
26-Dec-20	3.23	<4.0	26	16

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:102
Area: Ib valley
Project: Central Hospital
Monitoring station: Tap Discharge Water of Central Hospital

Date of Sampling	pH	Oil & Grese	TSS	COD	BOD
25-Apr-20	5.72	<4.0	48	56	2.6
13-Jun-20	7.52	<4.0	24	40	<2.0
15-Jul-20	5.82	<4.0	56	68	3.2
13-Aug-20	6.96	<4.0	42	32	<2.0
12-Sep-20	7.01	<4.0	48	32	2.3
14-Oct-20	6.96	<4.0	30	16	<2.0
13-Nov-20	7.58	<4.0	34	24	<2.0
28-Nov-20	7.9	<4.0	52	36	<2.0
25-Dec-20	7.47	<4.0	30	20	<2.0
13-Jan-21	7.54	<4.0	36	24	<2.0
13-Feb-21	7.75	<4.0	20	48	2.5
12-Mar-21	7.16	<4.0	28	44	<2.1

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:103
Area: Lakhanpur
Project: Lilari OCP
Monitoring station: Mine sump water

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	6.41	<4.0	42	92
15-May-20	4.39	<4.0	20	64
28-May-20	4.8	<4.0	20	44
15-Jun-20	6.17	<4.0	22	60
29-Jun-20	7.48	<4.0	28	48
13-Jul-20	5.99	<4.0	26	20
29-Jul-20	6.13	<4.0	34	28
14-Aug-20	7.23	<4.0	24	16
29-Aug-20	7.71	<4.0	46	52
12-Sep-20	3.14	<4.0	64	40
30-Sep-20	6.73	<4.0	42	24
30-Oct-20	5.8	<4.0	38	28
13-Nov-20	7.19	<4.0	38	28
10-Dec-20	7.45	<4.0	22	12
25-Dec-20	7.21	<4.0	40	28
13-Jan-21	6.93	<4.0	14	32
28-Jan-21	7.4	<4.0	20	76
13-Feb-21	7.54	<4.0	24	52
20-Feb-21	6.83	<4.0	26	60
12-Mar-21	6.74	<4.0	24	52
23-Mar-21	6.66	<4.0	28	44

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:104
Area: Lakhanpur
Project : Belpahar OCP
Monitoring station: Clear Water Tank of Sewage Treatment Plant

Date of Sampling	pH	TSS	BOD
30-Apr-20	7.63	38	<2.0
15-May-20	7.91	24	2.3
28-May-20	7.21	18	2.8
29-Jun-20	5.95	20	3.1
29-Jun-20	5.95	20	3.1
13-Jul-20	7.32	28	<2.0
29-Jul-20	7.26	28	<2.0
12-Sep-20	6.93	44	<2.0
30-Sep-20	6.8	46	2.2
13-Oct-20	4.99	28	<2.0
Maintenance			
31-Oct-20			
13-Nov-20	7.18	48	2.4
28-Nov-20	7.71	56	<2.0
10-Dec-20	7.56	38	<2.0
26-Dec-20	7.26	30	<2.0
13-Jan-21	7.24	22	<2.0
28-Jan-21	7.01	26	<2.0
13-Feb-21	5.74	26	<2.0
20-Feb-21	5.89	26	<2.0
12-Mar-21	6.97	28	<2.0
23-Mar-21	6.6	28	<2.0
15-Jun-20	7.46	28	<2.0

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:105

Area: Lakhanpur**Project :** Belpahar OCP**Monitoring station:** Inlet of STP

Date of Sampling	pH	Oil & Grease	TSS	COD
15-May-20	6.9	<4.0	32	64
13-Nov-20	6.67	<4.0	54	68
13-Feb-21	7.43	<4.0	20	36

Table:106

Area: Lakhanpur**Project :** Lakhanpur OCP**Monitoring station:** Inlet of Secondary Sedimentation Pond

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	7.41	<4.0	50	84
13-Jul-20	7.08	<4.0	81	108
29-Aug-20	7.3	<4.0	24	16
14-Oct-20	5.72	<4.0	48	36
13-Jan-21	6	<4.0	20	44

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:107

Area: Lakhanpur**Project :** Lakhanpur OCP**Monitoring station:** Outlet of Secondary Sedimentation Pond

Date of Sampling	pH	Oil & Grese	TSS	COD
30-Apr-20	7.24	<4.0	32	60
15-May-20	7.56	<4.0	28	72
28-May-20	7.47	<4.0	24	64
15-Jun-20	7.51	<4.0	26	52
29-Jun-20	7.28	<4.0	22	40
13-Jul-20	7.28	<4.0	60	48
29-Jul-20	7.56	<4.0	68	52
14-Aug-20	7.1	<4.0	54	40
12-Sep-20	6.5	<4.0	84	72
30-Sep-20	5.71	<4.0	58	36
13-Oct-20	5.84	<4.0	42	32
30-Oct-20	7.04	<4.0	26	12
13-Nov-20	6.78	<4.0	84	48
28-Nov-20	7.67	<4.0	32	20
10-Dec-20	7.52	<4.0	18	12
25-Dec-20	6.34	<4.0	44	32
13-Jan-21	7	<4.0	16	36
28-Jan-21	5.09	<4.0	24	42
13-Feb-21	7.51	<4.0	28	60
20-Feb-21	6.88	<4.0	28	52
12-Mar-21	6.46	<4.0	20	48
23-Mar-21	6.55	<4.0	22	56

Table:106

Area: Lakhanpur**Project:** Lakhanpur OCP**Monitoring station:** O&G Trap Inlet

Date of Sampling	pH	Oil & Grese	TSS	COD
30-Apr-20	6.79	<4.0	42	72
13-Jul-20	Dry			
13-Oct-20	4.75	<4.0	56	36
13-Jan-21	7.05	<4.0	24	52

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:108

Area: Lakhanpur

Project: Lakhanpur OCP

Monitoring station: O&G Trap Outlet

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	6.53	<4.0	28	36
13-Jul-20	Dry			
13-Oct-20	5.05	<4.0	50	32
13-Jan-21	6.82	<4.0	18	44

Table:109

Area: Lakhanpur

Project : Lakhanpur OCP

Monitoring station: Mine Sump Water

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	6.72	<4.0	34	84
15-May-20	7.21	<4.0	26	68
28-May-20	4.92	<4.0	18	48
15-Jun-20	6.98	<4.0	28	64
29-Jun-20	6.92	<4.0	24	44
13-Jul-20	7.22	<4.0	44	32
29-Jul-20	7.36	<4.0	52	40
14-Aug-20	6.8	<4.0	58	48
29-Aug-20	7.6	<4.0	48	36
12-Sep-20	6.64	<4.0	66	52
30-Sep-20	6.7	<4.0	36	24
13-Oct-20	4.78	<4.0	26	16
30-Oct-20	7.19	<4.0	22	12
13-Nov-20	6.95	<4.0	38	24
28-Nov-20	7.57	<4.0	30	24
10-Dec-20	7.55	<4.0	20	12
25-Dec-20	6.04	<4.0	28	20
13-Jan-21	6.01	<4.0	20	48
28-Jan-21	5.08	<4.0	26	52
13-Feb-21	5.57	<4.0	18	40
20-Feb-21	5.81	<4.0	20	44
12-Mar-21	7.45	<4.0	32	76
23-Mar-21	6.99	<4.0	26	48

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:110
Area: Lakhanpur
Project : Belpahar OCP
Monitoring station: Inlet of ETP

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	Dry			
13-Jul-20				
13-Oct-20	7	<4.0	64	40
13-Jan-21	6.82	<4.0	22	36

Table:111
Area: Lakhanpur
Project : Belpahar OCP
Monitoring station: Outlet of ETP

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	Dry			
13-Jul-20				
13-Oct-20	7.15	<4.0	44	32
13-Jan-21	6.86	<4.0	18	32

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

Table:112
Area: Lakhanpur
Project: Belpahar OCP
Monitoring station: Mine sump water

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	6.35	<4.0	46	108
15-May-20	4.58	<4.0	22	48
28-May-20	4.6	<4.0	20	44
15-Jun-20	6.47	<4.0	24	52
15-Jun-20	6.47	<4.0	24	52
29-Jun-20	6.75	<4.0	32	52
29-Jun-20	6.75	<4.0	32	52
13-Jul-20	6.92	<4.0	24	16
29-Jul-20	7.01	<4.0	32	24
14-Aug-20	6.05	<4.0	28	24
12-Sep-20	6.33	<4.0	24	12
30-Sep-20	6.07	<4.0	28	16
13-Oct-20	7.34	<4.0	54	28
30-Oct-20	5.98	<4.0	28	16
13-Nov-20	6.32	<4.0	24	12
28-Nov-20	7.8	<4.0	28	20
10-Dec-20	8.14	<4.0	22	12
25-Dec-20	7.87	<4.0	72	80
13-Jan-21	6.85	<4.0	24	64
28-Jan-21	7.25	<4.0	24	36
13-Feb-21	7.51	<4.0	34	60
20-Feb-21	6.56	<4.0	48	104
12-Mar-21	6.41	<4.0	34	72
23-Mar-21	7.28	<4.0	24	52

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:113
Area: Lakhanpur
Project: Belpahar OCP
Monitoring station: ECO Tank

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	6.51	<4.0	42	96
15-May-20	6.68	<4.0	54	124
28-May-20	4.63	<4.0	24	36
15-Jun-20	7.64	<4.0	36	68
15-Jun-20	7.64	<4.0	36	68
29-Jun-20	7.49	<4.0	40	36
29-Jun-20	7.49	<4.0	40	36
13-Jul-20	7.28	<4.0	28	20
29-Jul-20	7.42	<4.0	36	28
14-Aug-20	6.7	<4.0	48	36
12-Sep-20	6.68	<4.0	40	28
30-Sep-20	6.74	<4.0	68	44
13-Oct-20	7.72	<4.0	48	40
30-Oct-20	6.03	<4.0	34	16
13-Nov-20	6.47	<4.0	30	16
28-Nov-20	7.52	<4.0	34	24
10-Dec-20	7.52	<4.0	32	20
25-Dec-20	7.39	<4.0	20	12
13-Jan-21	6.53	<4.0	20	52
28-Jan-21	6.42	<4.0	22	48
13-Feb-21	5.5	<4.0	28	44
20-Feb-21	6.69	<4.0	26	44
12-Mar-21	6.54	<4.0	28	52
23-Mar-21	6.86	<4.0	22	48

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:114
Area: Mahalaxmi
Project: Basundhara (W) OCP
Monitoring station: Basundhara (E) OCP's Sump

Date of Sampling	pH	Oil & Grese	TSS	COD
23-Jun-20	7.66	<4.0	20	60
28-Jul-20	6.86	<4.0	40	28
27-Aug-20	6.78	<4.0	34	28
30-Sep-20	7.36	<4.0	34	16
30-Oct-20	6.57	<4.0	24	12
27-Nov-20	7.46	<4.0	26	16
26-Dec-20	7.76	<4.0	32	24
09-Jun-20	7.81	<4.0	26	60
14-Jul-20	6.59	<4.0	32	20
11-Aug-20	6.93	<4.0	34	32
11-Sep-20	7.83	<4.0	36	24
14-Oct-20	7.24	<4.0	42	24
12-Nov-20	6.59	<4.0	44	28
11-Dec-20	7.98	<4.0	42	28
12-Jan-21	6.63	<4.0	24	52
27-Jan-21	6.84	<4.0	20	40
13-Feb-21	5.61	<4.0	20	48
20-Feb-21	5.89	<4.0	24	52
10-Mar-21	8.92	<4.0	20	40
19-Mar-21	7.1	<4.0	28	64

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:115

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring station:** Inlet of Settling Pond at Excavation Workshop, B(W) OCP

Date of Sampling	pH	Oil & Grese	TSS	COD
09-Jun-20	6.82	<4.0	32	48
11-Sep-20	7.21	<4.0	30	28
11-Dec-20	7.53	<4.0	44	40
20-Feb-21	6.97	<4.0	28	60

Table:116

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring station:** Ba M1-Basundhara (E) OCP's Sump

Date of Sampling	pH	Oil & Grese	TSS	COD
25-Apr-20	7.31	<4.0	26	44
13-May-20	7.12	<4.0	22	56
29-May-20	7.45	<4.0	18	32

Table:117

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring station:** Outlet of Settling Pond at Excavation Workshop, B(W) OCP

Date of Sampling	pH	Oil & Grese	TSS	COD
09-Jun-20	6.92	<4.0	24	40
11-Sep-20	7.15	<4.0	22	16
11-Dec-20	7.7	<4.0	36	32
20-Feb-21	6.6	<4.0	36	52

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:118
Area: Basundhara
Project: Garjanbahal OCP
Monitoring station: Inlet of Settling Tank (Kanika Siding)

Date of Sampling	pH	Oil & Grease	TSS	COD
09-Jun-20	7.42	<4.0	30	56
11-Sep-20	7.33	4.8	88	160
11-Dec-20	6.13	4.8	114	192
20-Feb-21	6.62	4.6	38	112

Table:119
Area: Basundhara
Project: Garjanbahal OCP
Monitoring station: Mine Sump Water

Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-20	8.03	<4.0	22	40
13-May-20	7.21	<4.0	20	52
29-May-20	7.34	<4.0	26	40
09-Jun-20	7.8	<4.0	22	48
23-Jun-20	7.15	<4.0	24	36
14-Jul-20	7.29	<4.0	38	44
28-Jul-20	7.56	<4.0	48	56
11-Aug-20	6.73	<4.0	26	24
27-Aug-20	7.04	<4.0	76	88
11-Sep-20	7.75	<4.0	24	40
30-Sep-20	7.79	<4.0	40	32
14-Oct-20	5.86	<4.0	36	16
30-Oct-20	6.77	<4.0	18	8
12-Nov-20	7.46	<4.0	46	32
27-Nov-20	6.91	<4.0	26	16
11-Dec-20	7.28	<4.0	64	52
26-Dec-20	6.84	<4.0	74	92
12-Jan-21	7.35	<4.0	24	48
27-Jan-21	5.82	<4.0	14	48
13-Feb-21	7.5	4.8	68	212
20-Feb-21	6.22	<4.0	22	36
10-Mar-21	7.56	<4.0	22	36
19-Mar-21	6.86	<4.0	26	64

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:120
Area: Basundhara
Project: Garjanbahal OCP
Monitoring station: Outlet of Settling Tank (Kanika Siding)

Date of Sampling	pH	Oil & Grease	TSS	COD
25-Apr-20	7.04	<4.0	26	64
13-May-20	7.32	<4.0	28	44
29-May-20	6.92	<4.0	30	52
23-Jun-20	7.26	<4.0	24	48
14-Jul-20	6.76	4.8	86	220
28-Jul-20	7.01	4.2	78	176
11-Aug-20	7.27	6	148	268
29-Aug-20	7.1	5.4	128	260
11-Sep-20	7.06	<4.0	58	76
30-Sep-20	7.64	4.6	92	156
14-Oct-20	7.65	5.6	268	148
30-Oct-20	7.17	4.8	94	128
12-Nov-20	6.36	5.4	138	268
27-Nov-20	5.95	4.8	96	168
11-Dec-20	6.33	4.2	94	164
26-Dec-20	7.68	<4.0	72	128
12-Jan-21	7.71	<4.0	46	84
27-Jan-21	6.77	<4.0	16	32
13-Feb-21	7.44	<4.0	32	56
20-Feb-21	6.49	<4.0	16	64
06-Mar-21	8.06	4.4	34	128
19-Mar-21	6.15	4.6	68	216
09-Jun-20	7.6	<4.0	20	40

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:121

Area: Basundhara**Project:** Kulda OCP**Monitoring station:** Final Outlet Of ETP

Date of Sampling	pH	Oil & Grese	TSS	COD
14-May-20	7.84	<4.0	24	60
11-Aug-20	7.48	<4.0	44	36
12-Nov-20	7.85	<4.0	32	28
13-Feb-21	7.92	<4.0	24	36

Table:122

Area: Basundhara**Project :** Kulda OCP**Monitoring station:** Inlet of ETP

Date of Sampling	pH	Oil & Grese	TSS	COD
14-May-20	7.94	<4.0	36	92
11-Aug-20	7.38	<4.0	48	40
12-Nov-20	7.52	<4.0	44	36
13-Feb-21	8.02	<4.0	42	96

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:123

Area: Basundhara

Project: Kulda OCP

Monitoring station: Mine Sump Water Near Kulda Nursery

Date of Sampling	pH	Oil & Grease	TSS	COD
29-May-20	7.46	<4.0	24	44
09-Jun-20	8.03	<4.0	28	44
23-Jun-20	7.95	<4.0	18	44
14-Jul-20	7.36	<4.0	38	32
28-Jul-20	7.42	<4.0	48	36
11-Aug-20	7.58	<4.0	42	40
27-Aug-20	6.77	<4.0	46	36
11-Sep-20	7.15	<4.0	44	32
30-Sep-20	7.59	<4.0	64	56
14-Oct-20	8.1	<4.0	30	16
30-Oct-20	7.27	<4.0	20	12
12-Nov-20	6.42	<4.0	42	28
27-Nov-20	8.06	<4.0	42	32
11-Dec-20	7.28	<4.0	40	28
26-Dec-20	6.4	<4.0	32	12
12-Jan-21	6.99	<4.0	20	36
27-Jan-21	7.02	<4.0	22	44
13-Feb-21	5.53	<4.0	20	48
20-Feb-21	5.68	<4.0	24	36
10-Mar-21	7.67	<4.0	18	44
19-Mar-21	7.19	<4.0	34	76
25-Apr-20	7.25	<4.0	48	92
13-May-20	7.5	<4.0	22	40

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:124
Area: Orient
Project: Orient Mine No 2
Monitoring station: Mine sump of Mine 2

Date of Sampling	pH	Oil & Grease	TSS	COD
29-Apr-20	8.16	<4.0	36	60
14-May-20	7.34	<4.0	14	28
28-May-20	7.35	<4.0	14	28
13-Jun-20	6.88	<4.0	18	32
27-Jun-20	7.84	<4.0	18	32
15-Jul-20	7.35	<4.0	64	56
28-Jul-20	5.72	<4.0	72	64
13-Aug-20	7.37	<4.0	36	32
31-Aug-20	7.5	<4.0	40	24
14-Sep-20	6.85	<4.0	32	44
28-Sep-20	7.5	<4.0	30	16
14-Oct-20	8.04	<4.0	28	16
31-Oct-20	6.61	<4.0	20	12
12-Nov-20	6.32	<4.0	42	28
27-Nov-20	7.72	<4.0	58	44
11-Dec-20	6.59	<4.0	44	28
26-Dec-20	6.79	<4.0	28	20
12-Jan-21	8.03	<4.0	26	48
27-Jan-21	6.2	<4.0	18	40
13-Feb-21	6.7	<4.0	20	44
20-Feb-21	8.13	<4.0	26	44
06-Mar-21	7.91	<4.0	28	64
19-Mar-21	6.68	<4.0	26	72

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:125
Area: Orient
Project: Orient Mine No 3
Monitoring station: Mine sump of Mine 3

Date of Sampling	pH	Oil & Grease	TSS	COD
29-Apr-20	7.74	<4.0	20	36
14-May-20	7.27	<4.0	32	76
28-May-20	6.86	<4.0	36	64
13-Jun-20	7.09	<4.0	26	56
27-Jun-20	7.68	<4.0	30	52
15-Jul-20	7.36	<4.0	54	40
28-Jul-20	7.01	<4.0	60	44
13-Aug-20	7	<4.0	26	20
31-Aug-20	7.58	<4.0	24	16
14-Sep-20	7.18	<4.0	28	16
28-Sep-20	7.72	<4.0	62	28
14-Oct-20	7.78	<4.0	22	12
31-Oct-20	6.59	<4.0	28	16
12-Nov-20	7.85	<4.0	26	16
27-Nov-20	7.76	<4.0	36	32
11-Dec-20	7.64	<4.0	48	32
26-Dec-20	6.99	<4.0	18	24
12-Jan-21	7.82	<4.0	20	36
27-Jan-21	7.01	<4.0	20	52
13-Feb-21	6.55	<4.0	24	36
20-Feb-21	7.16	<4.0	24	48
06-Mar-21	7.1	<4.0	36	58
19-Mar-21	6.8	<4.0	24	60

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:126
Area: Orient
Project: Orient Mine No 4
Monitoring station: Mine sump of Mine 4

Date of Sampling	pH	Oil & Grease	TSS	COD
30-Apr-20	7.51	<4.0	28	52
14-May-20	6.85	<4.0	28	72
28-May-20	7.01	<4.0	32	72
13-Jun-20	7.2	<4.0	32	64
27-Jun-20	7.82	<4.0	26	36
15-Jul-20	7.67	<4.0	72	64
28-Jul-20	7.87	<4.0	78	72
13-Aug-20	7.48	<4.0	36	24
31-Aug-20	7.09	<4.0	22	12
14-Sep-20	7.57	<4.0	30	20
28-Sep-20	7.45	<4.0	40	28
14-Oct-20	7.84	<4.0	26	16
31-Oct-20	6.54	<4.0	22	12
12-Nov-20	7.5	<4.0	26	16
27-Nov-20	7.71	<4.0	32	24
11-Dec-20	7.48	<4.0	40	36
26-Dec-20	6.79	<4.0	16	20
12-Jan-21	7.58	<4.0	16	40
27-Jan-21	6.79	<4.0	16	36
13-Feb-21	6.62	<4.0	18	36
20-Feb-21	5.52	<4.0	18	40
06-Mar-21	6.68	<4.0	28	52
19-Mar-21	6.66	<4.0	24	56

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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Table:127
Area: Orient
Project: HBI Mine
Monitoring station: Mine sump of HBM

Date of Sampling	pH	Oil & Grease	TSS	COD
13-Jun-20	8.06	<4.0	22	40
27-Jun-20	7.72	<4.0	22	52
15-Jul-20	6.96	<4.0	46	28
28-Jul-20	7.15	<4.0	42	24
13-Aug-20	7.61	<4.0	34	28
31-Aug-20	7.22	<4.0	44	24
14-Sep-20	7.39	<4.0	22	12
28-Sep-20	7.41	<4.0	64	48
14-Oct-20	8.07	<4.0	24	12
31-Oct-20	6.57	<4.0	34	20
12-Nov-20	7.54	<4.0	34	24
27-Nov-20	8.01	<4.0	28	20
11-Dec-20	6.95	<4.0	34	24
26-Dec-20	7.76	<4.0	22	16
12-Jan-21	5.91	<4.0	38	92
27-Jan-21	7.34	<4.0	22	44
13-Feb-21	7.62	<4.0	26	32
20-Feb-21	7.01	<4.0	20	52
06-Mar-21	6.75	<4.0	26	56
19-Mar-21	7.97	<4.0	30	76
30-Apr-20	7.43	<4.0	22	68
14-May-20	7.51	<4.0	24	68
28-May-20	7.25	<4.0	28	56

All dimensions are in mg/l unless otherwise stated except pH

MoEF&CC Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	pH	Oil & Grease	TSS	COD	BOD
	5.5-9.0	10	100	250	30

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EFFLUENT (22 PARAMETER) QUALITY MONITORING

Table:128
Area: Ib Valley

Project (OCP / UG)	Lajkura		Samaleswari	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump No 1	Mine sump no 2	Mine Sump water	
Date	30.10.2020	05.11.2020	30.10.2020	
pH	7.59	5.59	7.3	
Colour(Hazen)	2	4	3	–
Nitrate Nitrogen (mg/L) (as N)	<0.5	<0.5	<0.5	10
Ammonical Nitrogen , mg/l (as N)	<0.5	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (as N)	<1.0	<1.0		100
Zinc(mg/L)	<0.04	0.1	<0.04	5
Cadmium, mg/l	<0.001	<0.001	<0.001	2
Nickel(mg/L)	<0.1	<0.1	<0.1	3

Table:129

Project (OCP / UG)	Samleswari OCP	Lajkura OCP	MoEF-Sch-VI Standards
NAME OF THE STATION	Outlet from Sedimentation Pond	Outlet of MDTP	
Date of Sampling	13-Nov-2020	13-Nov-20	
Colour (Hazen)	1	DRY	–
Nitrate Nitrogen(mg/L)(As N)	1.62		10
Ammonical Nitrogen , mg/l (As N)	<0.50		50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0		100
BOD [3 days at 27oC] (mg/L)	<2.0		30
Zinc(mg/L)	0.2		5

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Table:130
Area: Lakhanpur

Project (OCP / UG)	Lakhanpur OCP	Belpahar OCP	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump Water	Mine Sump Water	
Date of Sampling	13/Nov/2020	13/Nov/2020	
Colour(Hazen)	2	1	-
Nitrate Nitrogen(mg/L)(As N)	<0.5	<0.5	10
Ammonical Nitrogen , mg/l (As N)	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	100
BOD [3 days at 27oC] (mg/L)	<2.0	<2.0	30
Zinc(mg/L)	<0.04	<0.04	5
Cadmium, mg/l	<0.001	<0.001	2
Nickel(mg/L)	<0.10	<0.10	3

Table:131
Area: Mahalaxmi

Project (OCP / UG)	Basundhara OCP	MoEF-Sch-VI Standards
NAME OF THE STATION	Basundhara (E) OCP's Sump	
Date of Sampling	13-Nov-20	
Colour(Hazen)	2	
Nitrate Nitrogen(mg/L)(As N)	1.06	10
Ammonical Nitrogen , mg/l (As N)	0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	2.11	100
BOD [3 days at 27oC] (mg/L)	<2.0	30
Zinc(mg/L)	<0.04	5

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Table:132
Area: Basundhara

Project (OCP / UG)	Kulda OCP		MoEF-Sch-VI Standards
NAME OF THE STATION	Final Outlet of ETP	Mine Sump Water near Kulda Nursery	
Date of Sampling	13-Nov-20	13-Nov-20	
Colour (Hazen)	1	1	–
Nitrate Nitrogen(mg/L)(As N)	3.76	4.01	10
Ammonical Nitrogen , mg/l (As N)	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	100
BOD [3 days at 27oC] (mg/L)	<2.0	<2.0	30
Zinc(mg/L)	<0.04	<0.04	5

Table:133

Project (OCP / UG)	Garjanbahal OCP		MoEF-Sch-VI Standards
NAME OF THE STATION	Outlet of Settling tank (Kanika Siding)	Garjanbahal OCP	
Date of Sampling	13-Nov-20	Mine Sump Water	
Colour(Hazen)	2	13-Nov-20	
Nitrate Nitrogen(mg/L)(As N)	<0.5	<0.5	
Ammonical Nitrogen , mg/l (As N)	<0.5	<0.5	10
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	50
BOD [3 days at 27oC] (mg/L)	3.8	<2.0	100
Zinc(mg/L)	0.05	<0.04	3

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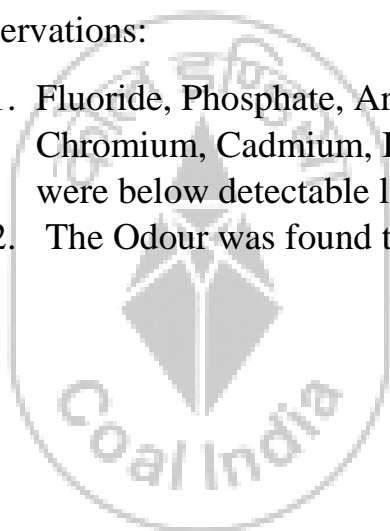
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Table:134
Area: Orient

Project (OCP / UG)	Orient Mine No.2	Orient Mine No.3	HBI Mine	Orient Mine No.4	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump. of Mine No.2	Mine Sump. of Mine No.3	Mine Sump. of HBM	Mine Sump. of Mine No.4	
Date of Sampling	12-Nov-20	12-Nov-20	12-Nov-20	12-Nov-20	
Colour(Hazen)	1	2	2	1	—
Nitrate Nitrogen(mg/L)(As N)	<0.5	<0.5	<0.5	<0.5	10
Ammonical Nitrogen, mg/l (As N)	<0.5	<0.5	<0.5	<0.5	50
Total Kjeldhal Nitrogen, mg/l (As N)	<1.0	<1.0	<1.0	<1.0	100
BOD [3 days at 27°C] (mg/L)	<2.0	<2.0	<2.0	<2.0	30
Zinc(mg/L)	<0.04	0.07	<0.04	<0.04	5

Observations:

1. Fluoride, Phosphate, Arsenic, Lead, Total Chromium, Hexavalent Chromium, Cadmium, Iron, Copper & BOD (3 day at 27°C) & Sulphide were below detectable limits in the sample collected
2. The Odour was found to be agreeable in all the samples received.



ampdi
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JOB NO.750001



SURFACE WATER QUALITY

Empati
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3.4 TABLES FOR SURFACE WATER QUALITY DATA

Table: 135

Area: Ib valley

Project: Samaleswari OCP

Project/OCP	Samaleswari OCP			
	Pandren Nallah near Muchbahal		Pandren Nallah Before Confluence Point with Lilari Nallah	
Date of sampling	6-Aug-2020	23/Jan/2021	6-Aug-2020	23/Jan/2021
pH	6.77	6.51	Inaccessible	
Dissolved Oxygen(mg/L)	6.5	6.2		5.1
BOD (3 days 27oc)(mg/L)	2.40	2.1		2.3
Color (Hazen unit)	6	2		4
Total dissolved solids (mg/L)	242	460		672
TSS (mg/L)	72	42		30
Total Hardness(mg/L)	153.22	321.4		497.8
Copper(mg/L)	<0.03	0.05		0.04
Iron(mg/L)	<0.1	<0.1		<0.1
Chlorides(mg/L)	14	14		16
Sulphate(mg/L)	10.96	181.99		269.56
Nitrate(mg/L)	0.85	<0.5		10.73
Fluoride(mg/L)	<0.3	0.52		0.36

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Table: 136

Area: Ib valley

Project: Lajkura OCP

Project/OCP	Lajkura OCP			
	U/S of Baghmara Nala at Discharge Point		D/S of Baghmara Nala at Discharge Point	
NAME OF STATIONS				
Date of sampling	6-Aug-2020	23/Jan/2021	6-Aug-2020	23/Jan/2021
pH	6.71	6.52	6.66	6.69
Dissolved Oxygen(mg/L)	7.0	4.9	6.8	4.4
BOD (3 days 27oc)(mg/L)	<2.0	2.2	<2.0	2.10
Color (Hazen unit)	4	2	7	2
Total dissolved solids (mg/L)	56	122	70	124
TSS(mg/L)	64	36	76	32
Total Hardness(mg/L)	32.26	58.80	36.29	54.90
Copper(mg/L)	<0.03	0.05	<0.03	0.04
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1
Chlorides(mg/L)	6	22	8	20
Sulphate(mg/L)	20.39	8.87	7.77	10.90
Nitrate(mg/L)	1.27	<0.5	1.30	<0.5
Fluoride(mg/L)	<0.3	<0.30	<0.3	<0.30

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Table137

Area: Lakhanpur

Project: Lakhanpur OCP

Project/OCP	Lakhanpur			
NAME OF STATIONS	Pulijhor Stream Near Tingismal Village as u/s for Lakhanpur OCP	Pulijhor stream Near Darlipalil Village before Confluence to Lilari Nallah as d/s Water of Lakhanpur OCP	Lilari Nallah Near Kudaloi Village as u/s of Lakhanpur OCP	Lilari Nallah Near Project Office Lilari Bridge Village as d/s of Lakhanpur OCP
Date of Sampling	6-Aug-2020	6-Aug-2020	6-Aug-2020	6-Aug-2020
pH	6.69	6.57	7.56	6.77
Dissolved Oxygen(mg/L)	6.6	6.8	7.2	6.7
BOD (3 days 27oc)(mg/L)	<2.0	2.70	<2.0	2.30
Color (Hazen unit)	5	8	4	8
Total dissolved solids (mg/L)	52	350	174	112
TSS(mg/L)	64	84	58	82
Total Hardness(mg/L)	28.22	241.92	108.86	64.51
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1
Chlorides(mg/L)	10	14	16	8
Sulphate(mg/L)	40.64	9.57	32.18	6.38
Nitrate(mg/L)	<0.5	<0.5	1.74	<0.5
Fluoride(mg/L)	<0.3	<0.3	<0.3	<0.3

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Table138

Area: Lakhanpur

Project: Lakhanpur OCP

Project/OCP	Lakhanpur			
NAME OF STATIONS	Pulijhor Stream Near Tingismal Village as u/s for Lakhanpur OCP	Pulijhor stream Near Darlipalil Village before Confluence to Lilari Nallah as d/s Water of Lakhanpur OCP	Lilari Nallah Near Kudaloi Village as u/s of Lakhanpur OCP	Lilari Nallah Near Project Office Lilari Bridge Village as d/s of Lakhanpur OCP
Date of Sampling	23/Jan/2021	23/Jan/2021	23/Jan/2021	23/Jan/2021
pH	6.74	6.71	6.81	6.76
Dissolved Oxygen(mg/L)	5.0	6.5	4.2	6.4
BOD (3 days 27oc)(mg/L)	2.50	2.80	2.20	3.20
Color (Hazen unit)	1	1	2	1
Total dissolved solids (mg/L)	56	60	54	58
TSS (mg/L)	46	30	32	26
Total Hardness(mg/L)	31.40	35.30	23.50	35.30
Copper(mg/L)	0.03	0.04	0.04	0.03
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1
Chlorides(mg/L)	10	12	10	10
Sulphate(mg/L)	3.49	4.22	3.34	2.76
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.30

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Table139

Area: Basundhara

Project: Basundhara OCP

Project/OCP	Basundhara		
	Basundhara River Before Confluence	Basundhara River After Confluence	Basundhara Barajharia Before Confluence
Date of sampling	15-Oct-2020	15-Oct-2020	15-Oct-2020
pH	6.70	6.70	6.79
Dissolved Oxygen(mg/L)	6.8	7.0	6.8
BOD (3 days 27oc)(mg/L)	<2.0	<2.0	<2.0
Color (Hazen unit)	6	6	7
Total dissolved solids (mg/L)	62	52	48
TSS(mg/L)	58	66	70
Total Hardness(mg/L)	31.4	31.4	23.5
Copper(mg/L)	<0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.1	<0.1
Chlorides(mg/L)	6	8	8
Sulphate(mg/L)	7.88	7.74	4.84
Nitrate(mg/L)	<0.5	<0.5	<0.5
Fluoride(mg/L)	<0.30	<0.30	<0.30

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Table140

Area: Mahalakshmi

Project: Basundhara OCP

Project/OCP	Basundhara OCP			
NAME OF STATIONS	Basundhara River near Bankibahal bridge as u/s water		Basundhara River Near Barpali Village d/s Water	
Date of sampling	15-Oct-2020	12-Jan-2021	15-Oct-2020	12-Jan-2021
pH	6.52	7.08	6.71	7.01
Dissolved Oxygen(mg/L)	7.1	4.9	7.1	5.3
BOD (3 days 27°C (mg/L)	<2.0	2.3	<2.0	2.5
Color (Hazen unit)	8	2	5	1
Total dissolved solids (mg/L)	54	120	66	124
TSS(mg/L)	74	30	60	42
Total Hardness(mg/L)	35.3	78.4	35.3	66.6
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1
Chlorides(mg/L)	10	8	10	10
Sulphate(mg/L)	8.71	36.78	11.89	35.61
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5
Fluoride(mg/L)	<0.30	<0.30	<0.30	<0.30

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Table141

Area: Orient

Project: Orient Mines

Project/OCP	Orient Mine No. 1 & 2	Orient Mine No. 3	HBI
NAME OF STATIONS	Bhedan River Before Confluence Point with IB River	Pond Water at Budhijam Village	IB River near Kotarbaga Village at Bridge Point
Date of sampling	6-Aug-2020	6-Aug-2020	6-Aug-2020
pH	6.66	6.58	6.79
Dissolved Oxygen(mg/L)	7.2	6.8	6.6
BOD (3 days 27oc)(mg/L)	<2.0	<2.0	<2.0
Color (Hazen unit)	3	4	10
Total dissolved solids (mg/L)	84	158	58
TSS(mg/L)	44	48	94
Total Hardness(mg/L)	52.42	64.51	32.26
Copper(mg/L)	<0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.1	<0.1
Chlorides(mg/L)	8	24	6
Sulphate(mg/L)	15.81	160.60	14.56
Nitrate(mg/L)	1.20	5.62	6.34
Fluoride(mg/L)	<0.3	<0.3	<0.3

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Table142

Area: Orient

Project: Orient Mines

Project/OCP	Orient Mine No. 1 & 2	Orient Mine No. 3	HBI
NAME OF STATIONS	Bhedan River Before Confluence Point with IB River	Pond Water at Budhijam Village	IB River near Kotarbaga Village at Bridge Point
Date of sampling	23/Jan/2021	23/Jan/2021	23/Jan/2021
pH	7.13	6.65	7.21
Dissolved Oxygen(mg/L)	5.3	3.9	4.3
BOD (3 days 27oc)(mg/L)	2.20	<2.0	2.50
Color (Hazen unit)	2	3	2
Total dissolved solids (mg/L)	146	170	146
TSS(mg/L)	34	28	40
Total Hardness(mg/L)	74.50	66.60	82.30
Copper(mg/L)	0.04	0.04	0.03
Iron(mg/L)	<0.1	<0.1	<0.1
Chlorides(mg/L)	18	24	18
Sulphate(mg/L)	13.66	22.82	13.81
Nitrate(mg/L)	3.57	<0.5	<0.5
Fluoride(mg/L)	<0.30	0.43	0.4

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Table:143

Area: Orient

Project: Orient Mines

Project/OCP	Orient Mine No. 4			
NAME OF STATIONS	IB River Near Charbhati Village as u/s Water for IB Valley Coalfield	Basundhara River Near Degan Village Before Confluence as u/s of Orient Area	IB River Bridge of NH200 at Gondghora Village as u/s of Orient Area	Bagachoppa Jhor Gangapur Village as u/s for Rampur Colliery
Date of sampling	6-Aug-2020	6-Aug-2020	6-Aug-2020	6-Aug-2020
pH	7.13	6.92	6.82	6.62
Dissolved Oxygen(mg/L)	6.7	7.1	6.7	7.0
BOD (3 days 27oc)(mg/L)	<2.0	<2.0	<2.0	2.30
Color (Hazen unit)	8	6	7	7
Total dissolved solids (mg/L)	66	54	58	208
TSS(mg/L)	88	78	84	78
Total Hardness(mg/L)	40.32	32.26	36.29	112.90
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.1	<0.1	<0.1
Chlorides(mg/L)	6	8	8	16
Sulphate(mg/L)	17.34	14.84	54.51	22.47
Nitrate(mg/L)	4.69	5.29	5.54	7.15
Fluoride(mg/L)	<0.3	<0.3	<0.3	<0.3

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Table:144

Area: Orient

Project: Orient Mines

Project/OCP	Orient Mine No. 4			
NAME OF STATIONS	IB River Near Charbhati Village as u/s Water for IB Valley Coalfield	Basundhara River Near Degan Village Before Confluence as u/s of Orient Area	IB River Bridge of NH200 at Gondghora Village as u/s of Orient Area	Bagachoppa Jhor Gangapur Village as u/s for Rampur Colliery
Date of sampling	23/Jan/2021	23/Jan/2021	23/Jan/2021	23/Jan/2021
pH	6.93	6.89	7.25	6.78
Dissolved Oxygen(mg/L)	4.1	5.9	4.8	4.2
BOD (3 days 27oc)(mg/L)	2.30	3.10	2.40	2.10
Color (Hazen unit)	2	3	2	4
Total dissolved solids (mg/L)	172	176	146	674
TSS(mg/L)	32	26	44	36
Total Hardness(mg/L)	90.20	94.10	74.50	501.80
Copper(mg/L)	0.05	0.03	<0.03	<0.03
Iron(mg/L)	<0.1	<0.10	<0.1	<0.1
Chlorides(mg/L)	16	14	18	18
Sulphate(mg/L)	49.28	48.99	15.26	248.42
Nitrate(mg/L)	<0.5	<0.5	<0.5	3.78
Fluoride(mg/L)	0.49	<0.03	<0.30	0.66

Observations:

1. Cadmium, Arsenic, Lead, Zinc, Hexavalent Chromium were found to be below dectable limit
2. Oil & Grease was not present in the samples

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Figure 5 Medical College & Hospital at Talcher



Figure 6 Social Forestry

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WELL WATER QUALITY

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3.5 TABLES FOR WELL WATER QUALITY DATA

Table:145

Area: Ib valley

Project: Samaleswari OCP

Monitoring Station: Well of Kudopali

Date of sampling	Water level (bgl in meters)
15-May-20	8.69
13-Aug-20	2.54
07-Dec-20	8.5
30-Jan-21	9.5

Table:146

Area: Ib valley

Project: Samaleswari OCP

Monitoring Station: Well of Lajkura

Date of sampling	Water level (bgl in meters)
15-May-20	5.59
13-Aug-20	3.21
07-Dec-20	11.8
30-Jan-21	12.4

Table:147

Area: Ib valley

Project: LajkuraOCP

Monitoring Station: Madhuban Nagar Well Water

Date of sampling	Water level (bgl in meters)
15-May-20	9.91
13-Aug-20	3.27
07-Dec-20	14.3
30-Jan-21	15.1

Table:148

Area: Ib valley**Project:** Lajkura OCP**Monitoring Station:** Adarsh Nagar Colony Well Water

Date of sampling	Water level (bgl in meters)
15-May-20	4.98
13-Aug-20	2.19
07-Dec-20	5.7
30-Jan-21	6.6

Table:149

Area: Ib valley**Project:** Lajkura OCP**Monitoring Station:** Chhualiberna Village Well Water

Date of sampling	Water level (bgl in meters)
15-May-20	4.45
13-Aug-20	1.07
07-Dec-20	4.11
30-Jan-21	5.2

Table:150

Area: Lakhanpur**Project:** Lakhanpur OCP**Monitoring Station:** Ubuda Village Well

Date of sampling	Water level (bgl in meters)
19-May-20	4.11
14-Aug-20	2.01
09-Dec-20	7.6
28-Jan-21	8.4

Table:151

Area: Lakhanpur**Project:** Lakhanpur OCP**Monitoring Station:** Khairkuni Village Well

Date of sampling	Water level (bgl in meters)
19-May-20	5.23
14-Aug-20	2.14
09-Dec-20	9.2
28-Jan-21	10.9

Table:152

Area: Lakhanpur**Project:** Lakhanpur OCP**Monitoring Station:** Darlipali Village Well Water

Date of sampling	Water level (bgl in meters)
19-May-20	4.17
14-Aug-20	2.52
09-Dec-20	7.5
28-Jan-21	7.6

Table:153

Area: Ib valley**Project:** Belpahar OCP**Monitoring Station:** Chharla Village Well

Date of sampling	Water level (bgl in meters)
19-May-20	2.79
19-May-20	2.79
14-Aug-20	1.45
09-Dec-20	6.9
28-Jan-21	7.1

Table:154

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring Station:** Sardega Village Well

Date of sampling	Water level (bgl in meters)
06-Aug-20	2.53
03-Dec-20	9.1
29-Jan-21	10.8
08-May-20	5.31

Table:155

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring Station:** Tiklipada Village Wel

Date of sampling	Water level (bgl in meters)
08-May-20	3.51
06-Aug-20	2.31
03-Dec-20	7.6
29-Jan-21	7.8

Table:156

Area: Basundhara**Project:** Kulda OCP**Monitoring Station:** Well at Sahaspur

Date of sampling	Water level (bgl in meters)
08-May-20	1.91
06-Aug-20	1.5
03-Dec-20	5.6
29-Jan-21	6.4

Table:157

Area: Basundhara**Project:** Kulda OCP**Monitoring Station:** Well at Teleimal

Date of sampling	Water level (bgl in meters)
08-May-20	1.12
06-Aug-20	1.05
03-Dec-20	8.3
29-Jan-21	9.2

Table:158

Area: Basundhara**Project:** Garjanbahal OCP**Monitoring Station:** Well at Karlikachar Village

Date of sampling	Water level (bgl in meters)
06-May-20	2.12
06-Aug-20	2.12
03-Dec-20	6.9
29-Jan-21	6.8

Table:159

Area: Orient**Project:** Orient Mine no. 2**Monitoring Station:** Madhuban Nagar Village Well (Reported)

Date of sampling	Water level (bgl in meters)
15-May-20	9.91
13-Aug-20	3.27
07-Dec-20	14.3
30-Jan-21	15.1

Table:160

Area: Orient**Project:** Orient Mine no. 2**Monitoring Station:** Chhualiberna Village Well Water (Reported)

Date of sampling	Water level (bgl in meters)
15-May-20	4.45
13-Aug-20	1.07
07-Dec-20	4.11
30-Jan-21	5.2

Table:161

Area: Orient**Project:** Orient Mine no. 3**Monitoring Station:** Well of Lajkura (Reported)

Date of sampling	Water level (bgl in meters)
15-May-20	5.59
13-Aug-20	3.21
07-Dec-20	11.8
30-Jan-21	12.4

Table162

Area: Orient**Project:** HBI**Monitoring Station:** Well of Chingriguda

Date of sampling	Water level (bgl in meters)
19-May-20	2.69
13-Aug-20	2.62
07-Dec-20	7.2
30-Jan-21	7.19

Table:163

Area: Orient**Project:** HBI**Monitoring Station:** Well of Kudopali (Reported)

Date of sampling	Water level (bgl in meters)
15-May-20	8.69
13-Aug-20	2.54
07-Dec-20	8.5
30-Jan-21	9.5

Table:164

Area: Orient**Project:** HBI**Monitoring Station:** Well of Ainlapali (Reported)

Date of sampling	Water level (bgl in meters)
16-May-20	2.03
16-May-20	2.03
13-Aug-20	2.71
07-Dec-20	8.3
30-Jan-21	9.9

Table:165

Area: Orient**Project:** Orient Mine no.4**Monitoring Station:** Adibasi Basti Village Well

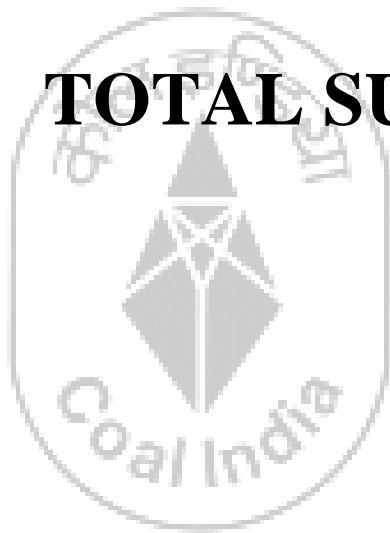
Date of sampling	Water level (bgl in meters)
16-May-20	3.48
13-Aug-20	3.12
07-Dec-20	5.6
30-Jan-21	7.3

Observations:

1. Jhopadi Basti Village Well was found in the premises



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TOTAL SUSPENDED SOLIDS IN WATER

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3.6 TABLES FOR TSS DATA

Table:166

Area: IB-Valley

Project: Lajkura

Monitoring Station: Mine Sump

Date of Sampling	TSS(mg/L)
31-Jul-20	22
13-Jan-21	42

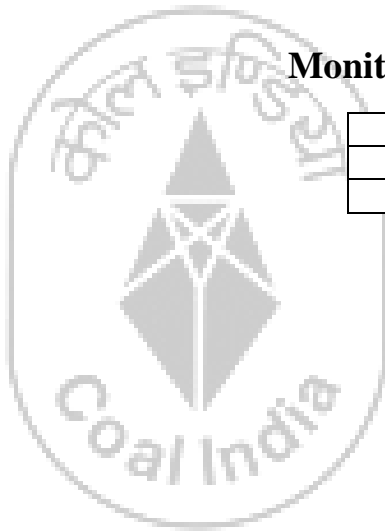
Table:167

Area: IB-Valley

Project: Lajkura

Monitoring Station: Surface Pond

Date of Sampling	TSS(mg/L)
31-Jul-20	34
28-Jan-21	34



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Table:168

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring Station:** 100 m upstream of the point in Basundhara nalla near Sardega Village

Date of Sampling	TSS(mg/L)
10-Dec-20	40
25-Apr-20	30
27-Jun-20	24
28-Jul-20	28
11-Aug-20	28
11-Sep-20	42
14-Oct-20	72
12-Nov-20	38
12-Jan-21	28
13-Feb-21	26
10-Mar-21	24

Table:169

Area: Mahalaxmi**Project:** Basundhara (W) OCP**Monitoring Station:** 100 m downstream of the point in Basundhara nalla near Sardega Village

Date of Sampling	TSS(mg/L)
10-Dec-20	62
25-Apr-20	38
27-Jun-20	36
28-Jul-20	34
11-Aug-20	34
11-Sep-20	62
14-Oct-20	78
12-Nov-20	34
12-Jan-21	42
13-Feb-21	40
10-Mar-21	36

Table:170

Area: Basundhara**Project:** Kulda OCP**Monitoring Station:** Basundhara River near Bankibahal bridge as u/s water

Date of Sampling	TSS(mg/L)
28-Jul-20	20

Table:171

Area: Basundhara**Project:** Kulda OCP**Monitoring Station:** Basundhara River near Barpali Village as d/s water

Date of Sampling	TSS(mg/L)
28-Jul-20	28





DRINKING WATER QUALITY

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3.7 TABLES FOR DRINKING WATER QUALITY DATA

Table:172

Area: Ib valley

Project: Samaleswari OCP

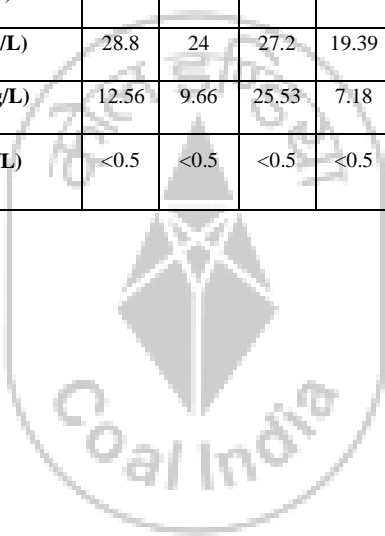
Project / OCP	Samaleswari OCP												Indian Drinking Standards (IS-10500):2012	
	Well Water from Kudopali													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour (Hazen)	5	5	2	4	4	2	2	2	3	3	1	2	5	15
Turbidity (NTU)	2	1	2	3	3	1	1	2	2	1	1	1	1	5
pH	7.05	7.21	7.06	7.48	6.74	7.03	7.26	6.97	7.56	6.58	7.61	7.87	6.5-8.5	No relaxation
Total Alkalinity (mg/L)	104	56	20	100	24	128	132	192	84	12	88	112	200	600
Total Hardness (Ca CO ₃)(mg/L)	128	148	68	108.86	524.16	113.12	117.6	99	90.8	62.7	95.3	91.3	200	600
Chloride (mg/L)	18	10	24	8	14	18	22	38	18	70	22	26	250	1000
Total Dissolve Solid (mg/L)	270	232	154	148	590	194	208	334	162	276	196	202	500	2000
Calcium (mg/L)	27.2	35.2	20.8	38.78	81.34	22.4	25.1	30.15	25.34	18.85	25.46	22.27	75	200
Sulphate (mg/L)	8.32	87.41	11.64	<1.0	208.45	4.36	2.35	10	13.52	14.43	12.58	7.32	200	400
Nitrate (mg/L)	<0.5	<0.5	<0.5	4.83	<0.5	<0.5	<0.5	1.26	<0.5	32.52	<0.5	<0.5	45	No relaxation

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Table:173

Project / OCP	Samaleswari OCP												Indian Drinking Standards (IS-10500):2012	
	Tap Water from Samaleswari OCP Colony													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	4	8	3	1	2	3	2	2	3	1	2	1	5	15
Turbidity(NTU)	2	2	1	1	1	2	3	2	1	2	1	2	1	5
pH	7.12	7.14	7.15	7.20	6.96	6.97	7.61	6.89	7.61	6.69	7.77	8.10	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	128	104	88	108	88	52	84	192	84	92	68	100	200	600
Total Hardness (Ca CO ₃)(mg/L)	160	100	92	84.67	88.7	68.68	78.4	103	82.9	98	95.3	95.3	200	600
Chloride(mg/L)	22	26	16	14	22	12	14	38	16	24	20	26	250	1000
Total Dissolve Solid(mg/L)	285	196	174	176	172	108	144	346	166	184	192	202	500	2000
Calcium(mg/L)	28.8	24	27.2	19.39	24.24	19.2	22	28.57	25.34	20.42	23.87	19.09	75	200
Sulphate(mg/L)	12.56	9.66	25.53	7.18	20.8	16.86	8.16	7.36	11.41	9	11.57	7.61	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.93	<0.5	<0.5	<0.5	<0.5	45	No relaxation



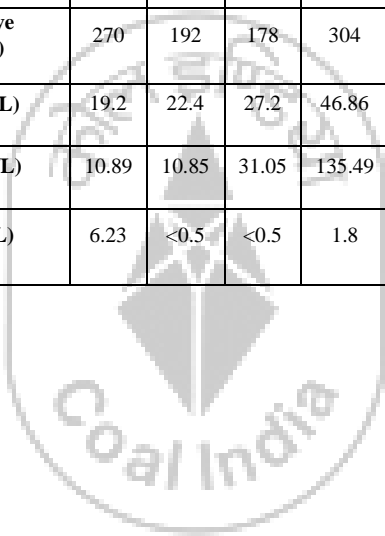
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Table:174

Project / OCP	Samaleswari OCP												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Well Water From IWSS, IB Valley Area												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour (Hazen)	4	9	2	2	3	3	2	1	4	2	3	2	5	15
Turbidity (NTU)	2	2	2	2	2	1	1	1	2	1	2	1	1	5
pH	7.61	7.20	7.13	7.53	6.88	6.98	7.21	6.93	7.53	6.78	7.65	8.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	108	84	40	88	124	48	200	84	96	108	96	200	600
Total Hardness (Ca CO ₃)(mg/L)	76	96	96	197.57	88.7	117.16	58.8	106.9	94.8	90.2	103.2	95.3	200	600
Chloride(mg/L)	30	22	16	12	20	18	14	42	16	22	22	24	250	1000
Total Dissolve Solid(mg/L)	270	192	178	304	174	192	104	350	164	188	202	202	500	2000
Calcium(mg/L)	19.2	22.4	27.2	46.86	24.24	22.4	14.1	28.57	22.18	21.99	27.05	22.27	75	200
Sulphate(mg/L)	10.89	10.85	31.05	135.49	24.41	5.06	11.2	7.91	11.69	61	12.29	7.75	200	400
Nitrate(mg/L)	6.23	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	1	<0.5	28.8	<0.5	<0.5	45	No relaxation



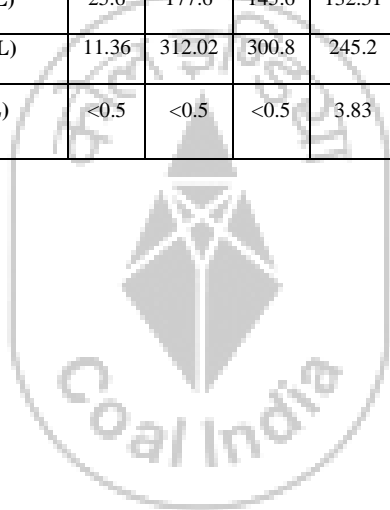
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Table:175

Project / OCP	Samaleswari OCP												Indian Drinking Standards (IS-10500):2012	
	Well Water From Lajkura													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	5	5	1	2	1	1	1	2	2	3	1	2	5	15
Turbidity(NTU)	2	1	1	1	1	2	2	2	1	1	2	1	1	5
pH	7.30	7.16	7.71	7.37	6.83	7.15	7.29	6.87	7.67	6.05	7.72	8.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	132	104	88	104	52	132	56	172	84	24	88	96	200	600
Total Hardness (CaCO ₃)(mg/L)	152	708	592	475.78	56.45	117.16	58.8	106.9	98.7	133.3	91.3	91.3	200	600
Chloride(mg/L)	20	38	26	40	8	20	32	38	22	70	22	24	250	1000
Total Dissolve Solid(mg/L)	305	912	806	730	92	202	100	316	162	340	196	204	500	2000
Calcium(mg/L)	25.6	177.6	145.6	132.51	17.78	27.2	17.3	31.74	25.34	31.42	25.46	25.46	75	200
Sulphate(mg/L)	11.36	312.02	300.8	245.2	16.23	9.98	10.51	10.27	12.39	8.57	11.28	7.32	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	3.83	6.25	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	45	No relaxation



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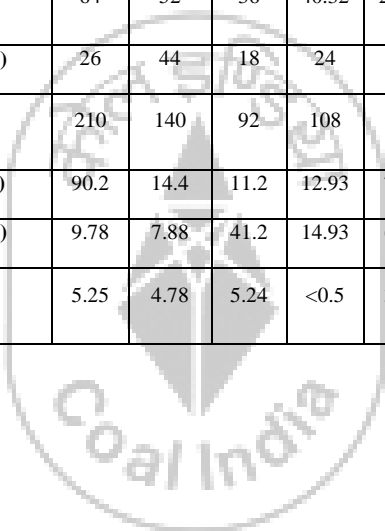
JOB NO.750001

Table:176

Area: Ib valley

Project: Lajkura OCP

Project / OCP	Lajkura OCP												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Madhuban Nagar Well Water												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	6	12	2	1	2	4	3	2	4	1	2	1	5	15
Turbidity(NTU)	3	3	1	1	1	3	1	1	2	2	2	2	1	5
pH	7.76	6.87	6.96	6.83	6.87	6.63	7.00	6.60	6.76	6.53	6.54	7.77	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	80	16	24	124	56	168	20	24	52	16	28	200	600
Total Hardness (Ca CO ₃)(mg/L)	64	52	36	40.32	225.79	145.44	188.2	59.4	51.3	82.3	47.6	57.6	200	600
Chloride(mg/L)	26	44	18	24	36	58	16	62	62	22	14	54	250	1000
Total Dissolve Solid(mg/L)	210	140	92	108	368	268	332	214	196	170	102	168	500	2000
Calcium(mg/L)	90.2	14.4	11.2	12.93	77.57	40	67.5	12.7	15.84	32.99	12.73	11.14	75	200
Sulphate(mg/L)	9.78	7.88	41.2	14.93	62.27	11.1	23.64	16.94	8.59	6.29	1.74	12.40	200	400
Nitrate(mg/L)	5.25	4.78	5.24	<0.5	37.67	34.26	6.79	1.72	12.16	22.41	25.11	2.50	45	No relaxation



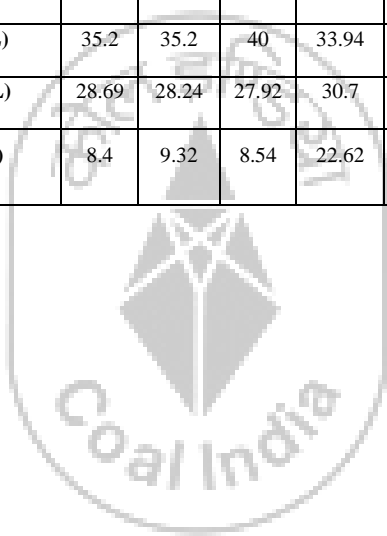
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Table:177

Project / OCP	Lajkura OCP												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Adarsh Nagar Colony Well Water												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	4	4	4	1	2	2	4	2	3	2	2	2	5	15
Turbidity(NTU)	4	1	2	2	1	1	2	2	1	1	1	1	1	5
pH	7.85	6.66	6.85	6.89	7.09	6.74	7.24	6.59	7.28	6.51	7.44	8.11	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	148	124	128	112	100	112	108	120	128	108	80	116	200	600
Total Hardness (CaCO ₃)(mg/L)	80	136	132	137.09	161.28	157.56	137.2	130.7	142.2	121.5	111.2	135	200	600
Chloride(mg/L)	40	42	46	40	60	40	40	46	42	42	44	40	250	1000
Total Dissolve Solid(mg/L)	371	308	294	312	384	318	296	292	298	292	282	292	500	2000
Calcium(mg/L)	35.2	35.2	40	33.94	45.25	40	40.8	38.09	39.6	34.56	33.41	36.59	75	200
Sulphate(mg/L)	28.69	28.24	27.92	30.7	41.19	33.16	26.82	32.63	35.78	28.14	28.63	14.23	200	400
Nitrate(mg/L)	8.4	9.32	8.54	22.62	40.5	30.17	18.2	3.59	<0.5	4.98	14.59	1.44	45	No relaxation



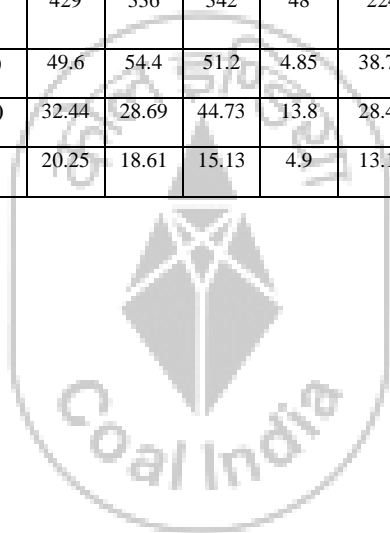
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Table:178

Project / OCP	Lajkura OCP												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Chhualibera Village Well Water												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	3	8	5	4	3	2	1	1	2	3	5	3	5	15
Turbidity(NTU)	3	2	1	3	2	2	3	2	3	2	3	2	1	5
pH	7.62	6.68	6.8	6.97	6.89	6.70	7.06	6.98	7.05	6.52	7.16	7.82	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	112	92	88	20	104	136	172	120	48	88	20	36	200	600
Total Hardness (Ca CO ₃)(mg/L)	104	164	164	24.19	116.93	161.6	199.9	158.4	55.3	156.8	43.7	43.7	200	600
Chloride(mg/L)	58	66	52	4	20	32	32	52	10	64	10	14	250	1000
Total Dissolve Solid(mg/L)	429	336	342	48	224	272	340	296	88	320	82	92	500	2000
Calcium(mg/L)	49.6	54.4	51.2	4.85	38.78	51.2	69.1	50.78	15.84	50.27	12.73	15.91	75	200
Sulphate(mg/L)	32.44	28.69	44.73	13.8	28.43	29.23	24.33	26.8	9.16	26.14	7.09	10.56	200	400
Nitrate(mg/L)	20.25	18.61	15.13	4.9	13.18	2.84	6.88	3.06	<0.5	9.7	<0.5	2.03	45	No relaxation



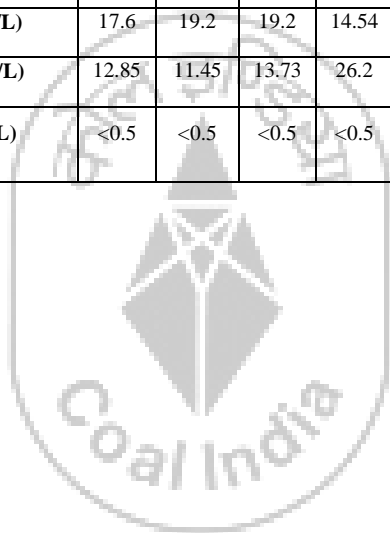
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Table:179

Project / OCP	Lajkura OCP												Indian Drinking Standards (IS-10500):2012	
	VIP Guest House Tap Water													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	2	6	2	1	2	1	1	3	2	1	2	2	5	15
Turbidity(NTU)	2	1	2	2	1	2	3	1	1	2	1	1	1	5
pH	7.89	7.89	7.75	6.97	6.79	7.10	7.43	7.42	7.74	7.32	7.68	8.05	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	80	64	48	28	40	68	80	32	68	72	76	200	600
Total Hardness (Ca CO ₃)(mg/L)	244	84	68	68.54	52.42	68.68	78.4	106.9	75	70.6	99.3	91.3	200	600
Chloride(mg/L)	10	16	10	10	8	12	16	16	12	10	16	24	250	1000
Total Dissolve Solid(mg/L)	207	142	128	138	84	108	140	166	124	132	188	186	500	2000
Calcium(mg/L)	17.6	19.2	19.2	14.54	12.93	17.6	22	26.98	23.76	20.42	22.27	19.09	75	200
Sulphate(mg/L)	12.85	11.45	13.73	26.2	19.83	26.84	13.13	21.66	9.16	7.71	25.89	17.33	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.52	<0.5	<0.5	<0.5	<0.5	45	No relaxation



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Table:180

Area: Lakhanpur

Project: Lilari OCP

Project / OCP	Lilari OCP												Indian Drinking Standards (IS-10500):2012	
	Jurabaga Village Well Water													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	4	7	1	2	1	4	2	1	3	2	3	4	5	15
Turbidity(NTU)	2	2	3	1	2	2	1	2	1	1	2	2	1	5
pH	7.82	7.92	6.63	6.95	6.58	7.23	7.30	7.55	7.64	6.51	7.74	8.02	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	136	92	92	36	36	148	152	124	184	72	76	76	200	600
Total Hardness (Ca CO ₃)(mg/L)	104	104	172	36.29	60.48	113.12	121.5	170.1	252.8	86.2	87.3	95.3	200	600
Chloride(mg/L)	30	26	76	6	10	10	12	46	76	22	26	26	250	1000
Total Dissolve Solid(mg/L)	459	182	400	66	76	190	198	342	568	162	180	184	500	2000
Calcium(mg/L)	52.8	25.6	48	8.08	21.01	19.2	20.4	52.37	71.28	21.99	27.05	23.87	75	200
Sulphate(mg/L)	35.23	6.84	51.35	23.52	10.12	1.83	<1.0	35.68	62.54	5.71	6.65	7.75	200	400
Nitrate(mg/L)	25.5	<0.5	<0.5	7.86	<0.5	<0.5	2.03	4.08	30.88	<0.5	<0.5	1.43	45	No relaxation



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Table:181

Area: Lakhanpur

Project: Lakhanpur OCP

Project / OCP	Lakhanpur OCP												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	LKP Canteen Tap Water												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	3	6	3	2	2	3	1	2	2	3	2	3	5	15
Turbidity(NTU)	2	1	1	1	3	1	2	1	2	2	2	2	1	5
pH	7.76	8.06	7.36	7.18	6.67	7.24	7.96	7.53	7.62	7.27	7.55	7.98	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	72	116	48	52	20	52	52	68	68	68	32	72	200	600
Total Hardness (Ca CO ₃)(mg/L)	56	112	136	96.77	540.29	80.8	54.9	67.3	90.8	82.3	35.7	87.3	200	600
Chloride(mg/L)	14	26	24	16	22	14	12	12	12	12	10	14	250	1000
Total Dissolve Solid(mg/L)	225	220	260	186	730	116	106	108	140	142	68	148	500	2000
Calcium(mg/L)	22.4	24	40	29.09	117.97	22.4	18.8	26.98	25.34	26.71	11.14	25.46	75	200
Sulphate(mg/L)	11.49	6.69	85.69	39.29	265.59	15.88	7.74	11.66	16.62	12.43	5.78	11.27	200	400
Nitrate(mg/L)	6.78	<0.5	<0.5	<0.5	12.95	<0.5	<0.5	1.47	<0.5	<0.5	<0.5	<0.5	45	No relaxation

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Table:182

Area: Lakhanpur

Project: Belpahar OCP

Project / OCP Monitoring Station	Belpahar OCP IWSS Outlet												Indian Drinking Standards (IS- 10500):2012	
	Apr- 20	May- 20	Jun- 20	Jul- 20	Aug- 20	Sep- 20	Oct- 20	Nov- 20	Dec- 20	Jan- 21	Feb- 21	Mar- 21	Acceptable	Permissible
Colour(Hazen)	4	5	4	3	1	1	1	1	2	1	1	2	5	15
Turbidity(NTU)	2	1	3	1	2	1	3	2	1	3	2	1	1	5
pH	7.99	7.59	7.38	7.31	7.31	7.29	7.42	7.49	7.66	7.32	7.88	8.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	88	60	48	56	48	52	52	60	72	72	68	76	200	600
Total Hardness (Ca CO ₃)(mg/L)	80	92	136	100.8	76.61	76.76	62.7	67.3	98.7	82.3	91.3	87.3	200	600
Chloride(mg/L)	10	16	18	20	12	10	14	10	12	14	12	14	250	1000
Total Dissolve Solid(mg/L)	216	162	258	198	138	108	102	106	140	138	146	144	500	2000
Calcium(mg/L)	17.6	25.6	43.2	29.09	25.86	17.6	15.7	20.63	28.51	23.57	25.46	23.87	75	200
Sulphate(mg/L)	13.26	31.96	83.60	43.66	29.26	18.83	6.77	9.72	17.75	10.43	15.04	9.72	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	0.82	<0.5	<0.5	1.23	3.88	<0.5	2.52	<0.5	45	No relaxation

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Table:183

Area: Mahalakshmi

Project: Basundhara OCP

Project / OCP Monitoring Station	Basundhara OCP Basundhara Colony Tap Water											Indian Drinking Standards (IS-10500):2012	
	Apr- 20	May- 20	Jun- 20	Jul- 20	Aug- 20	Sep- 20	Oct- 20	Nov- 20	Jan- 21	Feb- 21	Mar- 21	Acceptable	Permissible
Colour(Hazen)	2	8	2	4	2	2	2	1	2	2	3	5	15
Turbidity(NTU)	2	2	1	4	1	1	1	1	1	1	2	1	5
pH	7.12	7.20	7.26	7.08	7.01	7.35	7.38	6.98	6.53	7.4	6.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	28	28	16	28	188	20	20	16	28	20	200	600
Total Hardness (Ca CO ₃)(mg/L)	104	172	188	173.38	129.02	210.08	152.9	150.5	152.9	154.8	186.6	200	600
Chloride(mg/L)	20	10	12	12	8	18	12	8	10	10	10	250	1000
Total Dissolve Solid(mg/L)	197	270	298	284	204	306	254	226	246	258	278	500	2000
Calcium(mg/L)	19.2	19.2	41.6	37.17	32.32	43.2	34.6	36.5	32.99	33.41	41.37	75	200
Sulphate(mg/L)	13.21	117.73	143.01	140.84	85.43	15.74	99.26	97.89	103.99	111.5	131.56	200	400
Nitrate(mg/L)	18.28	2.49	<0.5	1.88	5.52	<0.5	7.96	11.99	4.32	<0.5	4.22	45	No relaxation
Zinc(mg/L)	<0.04	0.09	<0.04	<0.04	<0.04	0.04	0.18	0.43	0.06	0.13	0.28	5	15



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Table:184

Area: Basundhara

Project: Basundhara OCP

Project / OCP	Garjanbahal OCP												Indian Drinking Standards (IS-10500):2012	
	Basundhara Colony Tap Water													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	2	8	2	4	2	2	2	1		2	2	3	5	15
Turbidity(NTU)	2	2	1	4	1	1	1	1		1	1	2	1	5
pH	7.12	7.20	7.26	7.08	7.01	7.35	7.38	6.98		6.53	7.4	6.56	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	32	28	28	16	28	188	20	20		16	28	20	200	600
Total Hardness (Ca CO ₃)(mg/L)	104	172	188	173.38	129.02	210.08	152.9	150.5		152.9	154.8	186.6	200	600
Chloride(mg/L)	20	10	12	12	8	18	12	8		10	10	10	250	1000
Total Dissolve Solid(mg/L)	197	270	298	284	204	306	254	226		246	258	278	500	2000
Calcium(mg/L)	19.2	19.2	41.6	37.17	32.32	43.2	34.6	36.5		32.99	33.41	41.37	75	200
Sulphate(mg/L)	13.21	117.73	143.01	140.84	85.43	15.74	99.26	97.89		103.99	111.5	131.56	200	400
Nitrate(mg/L)	18.28	2.49	<0.5	1.88	5.52	<0.5	7.96	11.99		4.32	<0.5	4.22	45	No relaxation
Zinc(mg/L)	<0.04	0.09	<0.04	<0.04	<0.04	0.04	0.18	0.43		0.06	0.13	0.28	5	15



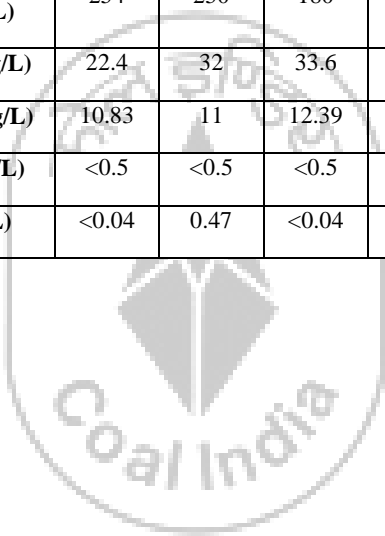
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Table:185

Project / OCP	Garjanbahal OCP													
Monitoring Station	Tube Well at Karlikachar													
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	6	5	3	5	2	1	1	3	2	2	2	4		
Turbidity(NTU)	2	2	2	2	3	1	2	2	2	1	2	2		
pH	7.31	7.28	6.95	7.39	6.68	6.63	7.24	7.24	7.64	7.23	7.55	6.58		
Total Alkalinity(mg/L)	120	160	96	200	128	156	116	20	136	116	112	108		
Total Hardness (Ca CO ₃)(mg/L)	112	156	112	177.41	100.8	141.4	94.1	202	122.4	117.6	111.2	123.1		
Chloride(mg/L)	16	16	20	10	12	16	12	90	12	12	10	12		
Total Dissolve Solid(mg/L)	254	250	180	264	168	204	168	594	188	186	190	180		
Calcium(mg/L)	22.4	32	33.6	48.48	24.24	25.6	20.4	61.89	23.76	18.85	19.09	19.09		
Sulphate(mg/L)	10.83	11	12.39	3.1	2.5	8.29	4.42	66.51	3.66	2.57	4.92	6.2		
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	7.72	0.71	<0.5	<0.5	2.03		
Zinc(mg/L)	<0.04	0.47	<0.04	<0.04	<0.04	0.16	1.24	0.55	<0.04	<0.04	0.05	0.16		



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JOB NO.750001

Table:186

Area: Orient

Project: Orient Mine no. 2

Project / OCP	Orient Mine No. 1 & 2												Indian Drinking Standards (IS-10500):2012	
	Tap Water at Budhijaam Colony													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	4	7	3	2	1	4	1	1	3	1	3	3	5	15
Turbidity(NTU)	4	1	1	1	2	3	1	3	1	2	2	2	1	5
pH	7.80	7.91	7.49	7.74	7.16	7.12	7.08	7.10	7.70	7.33	7.32	7.84	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	80	64	80	72	120	68	80	116	72	76	84	200	600
Total Hardness (Ca CO ₃)(mg/L)	76	76	72	92.74	80.64	161.6	82.3	103	82.9	78.4	103.2	103.2	200	600
Chloride(mg/L)	12	14	8	16	18	30	12	14	8	16	18	20	250	1000
Total Dissolve Solid(mg/L)	218	144	128	178	164	326	140	164	126	130	184	200	500	2000
Calcium(mg/L)	24	19.2	19.2	22.62	22.62	43.2	20.4	28.57	25.34	15.71	22.27	25.46	75	200
Sulphate(mg/L)	8.52	8.62	15.53	25.07	22.19	35.55	15.48	23.47	6.62	8.57	31.38	25.92	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	29.83	<0.5	2.78	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	0.43	0.05	<0.04	<0.04	<0.04	<0.04	0.45	5	15



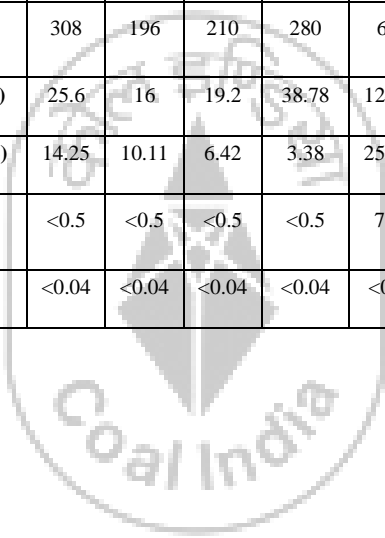
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Table:187

Project / OCP	Orient Mine No. 1 & 2												Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Mine no 1 & 2 Filter Plant												Acceptable	Permissible
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	5	6	2	1	2	2	1	2	4	2	1	1	5	15
Turbidity(NTU)	3	2	2	2	1	1	2	2	2	3	1	2	1	5
pH	7.97	7.93	7.30	7.36	6.88	7.43	7.32	6.79	7.73	7.04	7.29	8.19	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	144	92	120	180	28	140	128	132	92	88	112	112	200	600
Total Hardness (Ca CO ₃)(mg/L)	100	84	92	153.22	499.97	129.28	109.8	122.8	90.8	86.2	107.2	115.1	200	600
Chloride(mg/L)	24	28	28	28	14	10	34	34	24	26	32	32	250	1000
Total Dissolve Solid(mg/L)	308	196	210	280	654	238	236	224	202	202	234	232	500	2000
Calcium(mg/L)	25.6	16	19.2	38.78	124.43	22.4	23.6	30.15	12.67	18.85	22.27	20.68	75	200
Sulphate(mg/L)	14.25	10.11	6.42	3.38	257.13	4.78	3.46	2.92	23.1	14	1.88	2.54	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	7.41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.12	<0.04	<0.04	<0.04	<0.04	<0.04	5	15



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Table:188

Project / OCP	Orient Mine No. 3												Indian Drinking Standards (IS-10500):2012	
	Mine no 3 Filter Plant													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	4	6	4	4	2	1	1	1	3	2	2	2	5	15
Turbidity(NTU)	2	1	2	3	3	2	1	1	1	1	1	1	1	5
pH	7.64	7.15	6.68	7.68	6.69	7.13	7.28	6.86	7.42	6.81	6.51	7.91	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	60	88	72	96	36	80	64	64	68	56	56	68	200	600
Total Hardness (Ca CO ₃)(mg/L)	84	108	112	120.96	96.77	72.72	98	110.9	114.5	101.9	107.2	99.3	200	600
Chloride(mg/L)	18	18	16	18	24	16	20	16	20	20	18	20	250	1000
Total Dissolve Solid(mg/L)	258	188	186	212	184	204	190	188	196	188	196	190	500	2000
Calcium(mg/L)	27.2	20.8	25.6	27.47	24.24	22.4	22	25.39	25.34	18.85	20.68	20.68	75	200
Sulphate(mg/L)	28.39	38.65	38.36	34.36	37.03	41.31	38.16	46.51	47.18	40.28	47.15	33.1	200	400
Nitrate(mg/L)	10.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.37	<0.5	<0.5	<0.5	<0.5	45	No relaxation



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Table:189

Project / OCP Monitoring Station	HBI Mine Tap Water at Rampur Colony												Indian Drinking Standards (IS- 10500):2012	
	Apr- 20	May- 20	Jun- 20	Jul- 20	Aug- 20	Sep- 20	Oct- 20	Nov- 20	Dec- 20	Jan- 21	Feb- 21	Mar- 21	Acceptable	Permissible
Colour(Hazen)	4	8	3	2	1	2	2	1	2	1	1	3	5	15
Turbidity(NTU)	3	3	3	3	2	1	1	2	1	2	1	2	1	5
pH	7.93	5.49	7.45	7.45	7.67	7.77	7.68	7.13	7.66	7.42	7.12	8.15	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	152	12	120	128	124	152	120	128	112	108	104	108	200	600
Total Hardness (Ca CO ₃)(mg/L)	92	36	104	96.77	116.93	92.92	113.7	118.8	114.5	101.9	111.2	95.3	200	600
Chloride(mg/L)	20	12	24	24	28	26	26	24	28	22	28	26	250	1000
Total Dissolve Solid(mg/L)	268	58	220	216	224	250	220	202	216	198	226	214	500	2000
Calcium(mg/L)	25.6	6.4	24	22.62	27.47	43.2	25.1	31.7	23.76	25.14	30.23	22.27	75	200
Sulphate(mg/L)	7.63	1.64	10.45	5.63	7.21	7.87	10.23	1.11	7.18	1.29	7.66	4.65	200	400
Nitrate(mg/L)	<0.5	10.68	9.17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation



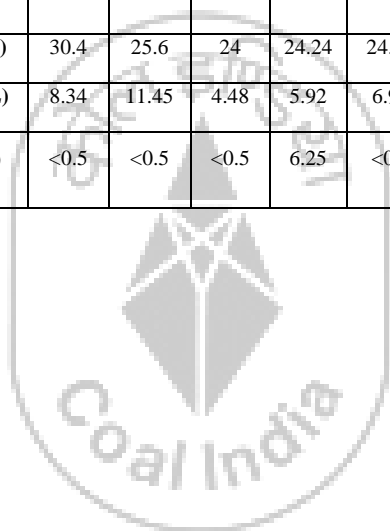
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Table:190

Project / OCP	HBI Mine												Indian Drinking Standards (IS-10500):2012	
	HBI Water Filter Plant													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	2	4	5	3	2	1	3	2	3	2	3	3	5	15
Turbidity(NTU)	2	1	3	2	1	2	2	1	1	1	2	2	1	5
pH	7.09	7.04	7.01	7.82	7.30	7.43	7.52	6.69	7.89	7.35	6.52	8.20	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	140	120	128	128	128	140	120	128	112	88	112	116	200	600
Total Hardness (Ca CO ₃)(mg/L)	96	112	100	100.8	104.83	125.24	86.2	99	102.7	39.2	107.2	103.2	200	600
Chloride(mg/L)	28	28	24	24	26	28	24	24	26	22	24	24	250	1000
Total Dissolve Solid(mg/L)	309	230	208	220	218	220	208	198	212	208	216	208	500	2000
Calcium(mg/L)	30.4	25.6	24	24.24	24.24	25.6	22	26.98	25.34	11	27.05	23.87	75	200
Sulphate(mg/L)	8.34	11.45	4.48	5.92	6.93	5.76	5.81	<1.0	9.3	21	3.76	3.38	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	6.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation



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JOB NO.750001

Table:191

Area: MCL

Project: MCL

Monitoring Station: Tap Water at DAV School (Anand Vihar)

Project / OCP	MCL(HQ)												Indian Drinking Standards (IS-10500):2012	
	Tap water at DAV School (Anand vihar)												Acceptable	Permissible
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21		
Colour(Hazen)	4	6	3	3	3	2	1	2	2	1	2	3	5	15
Turbidity(NTU)	2	2	1	1	1	1	1	1	1	2	1	2	1	5
pH	7.81	7.60	7.54	7.76	6.76	7.01	7.62	7.22	7.84	7.63	7.71	8.02	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	104	56	56	144	228	232	76	84	88	76	84	84	200	600
Total Hardness (Ca CO ₃)(mg/L)	92	84	84	237.89	205.63	210.08	78.4	86.9	98.7	90.2	95.3	95.3	200	600
Chloride(mg/L)	12	16	8	12	16	14	48	12	10	12	10	14	250	1000
Total Dissolve Solid(mg/L)	252	152	138	364	296	310	136	132	144	144	148	154	500	2000
Calcium(mg/L)	24	24	22.4	46.86	46.86	44.8	23.6	23.76	36.43	26.71	30.23	28.64	75	200
Sulphate(mg/L)	10.81	25.12	27.92	91.97	3.05	3.93	17.97	9.58	11.97	13.86	11.28	10.85	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation

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Table:192

Area: MCL

Project: MCL

Monitoring Station: Tap Water at Cooperate Office (Jagruthi Vihar)

Project / OCP	MCL(HQ)												Indian Drinking Standards (IS-10500):2012	
	Tap Water at Corporate Office (Jagruti Vihar)													
Monitoring Station	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	3	5	2	1	1	3	1	1	4	2	1	2	5	15
Turbidity(NTU)	2	2	3	1	3	2	1	2	2	3	2	1	1	5
pH	7.87	7.68	7.64	7.40	6.84	7.12	7.67	7.31	7.74	7.59	7.69	7.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	96	68	68	132	172	176	76	80	84	88	76	72	200	600
Total Hardness (Ca CO ₃)(mg/L)	180	88	80	92.74	197.57	206.04	86.2	90.8	98.7	94.1	99.3	99.3	200	600
Chloride(mg/L)	10	16	12	8	42	38	32	12	12	10	10	14	250	1000
Total Dissolve Solid(mg/L)	231	156	138	204	372	384	134	138	146	148	154	162	500	2000
Calcium(mg/L)	22.4	24	22.4	22.62	53.33	52.8	23.6	26.93	30.1	26.71	30.23	28.64	75	200
Sulphate(mg/L)	11.23	26.16	26.12	3.52	58.31	41.31	18.53	7.61	11.27	14.43	9.69	7.75	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	32.15	28.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation

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Table:193

Area: MCL

Project: MCL

Monitoring Station: Outlet to Water Treatment Plant (Anand Vihar)

Project / OCP	MCL(HQ)					Indian Drinking Standards (IS-10500):2012	
	Outlet to Water Treatment Plant (Anand Vihar)						
Monitoring Station	Apr-20	Jul-20	Dec-20	Jan-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	4	2	2	2	2	5	15
Turbidity(NTU)	3	2	1	1	1	1	5
pH	7.51	7.28	7.81	7.52	8.04	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	92	36	84	80	80	200	600
Total Hardness (Ca CO ₃)(mg/L)	52	72.58	86.9	94.1	99.3	200	600
Chloride(mg/L)	12	8	12	12	12	250	1000
Total Dissolve Solid(mg/L)	235	132	144	142	154	500	2000
Calcium(mg/L)	25.6	21.01	26.93	26.71	25.46	75	200
Sulphate(mg/L)	9.76	27.46	10.28	12.14	9.44	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation

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Table:194

Area: MCL**Project: MCL****Monitoring Station: Inlet to Water Treatment Plant (Anand Vihar)**

Project / OCP	MCL(HQ)					Indian Drinking Standards (IS-10500):2012	
	Inlet to Water Treatment Plant (Anand Vihar)						
Monitoring Station	Apr-20	Jul-20	Dec-20	Jan-21	Mar-21	Acceptable	Permissible
Colour(Hazen)	5	3	4	2	2	5	15
Turbidity(NTU)	3	2	2	1	1	1	5
pH	7.42	7.33	7.80	7.24	8.06	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100	40	88	72	72	200	600
Total Hardness (Ca CO ₃)(mg/L)	36	72.58	90.8	86.2	95.3	200	600
Chloride(mg/L)	14	8	24	10	12	250	1000
Total Dissolve Solid(mg/L)	263	134	148	144	152	500	2000
Calcium(mg/L)	30.4	25.86	31.68	25.14	27.05	75	200
Sulphate(mg/L)	8.66	34.36	10.28	13	8.45	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	<0.5	<0.5	45	No relaxation

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Observations:

3. Fluoride, Arsenic, Lead, Zinc, Total Chromium, Boron, Cadmium, Iron, Copper & Manganese were below detectable limits in the sample collected
4. The Odour & Taste were found to be agreeable in all the samples received.



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PIEZOMETER DEPTH ANALYSIS

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3.8 TABLES FOR PIEZOMETER QUANTITY DATA

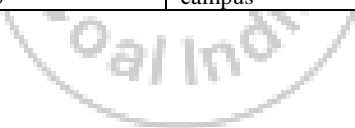
Table:195

Area	Project	Name of the Station	Date of Sampling	Below Ground Levels (meter)
Ib valley	Lajkura OCP	Piezometer No MIP 02; Village Gumadera; Village high school	14-May-20	30
Ib valley	Lajkura OCP	Piezometer No MIP 02; Village Gumadera; Village high school	06-Nov-20	20
Ib valley	Lajkura OCP	Piezometer No MIP 02; Village Gumadera; Village high school	14-Jan-21	23.39
Ib valley	Samaleswari OCP	Piezometer No MIP 04; Village Kutabaga; (Believer's church school)	06-Nov-20	5
Ib valley	Samaleswari OCP	Piezometer No MIP 04; Village Kutabaga; (Believer's church school)	14-Jan-21	9.3
Lakhanpur	Lilari OCP	Piezometer No MIP 06; Infront of Lilari mines Project office.	19-May-20	32
Lakhanpur	Lilari OCP	Piezometer No MIP 06; Infront of Lilari mines Project office.	06-Nov-20	9
Lakhanpur	Lilari OCP	Piezometer No MIP 06; Infront of Lilari mines Project office.	14-Jan-21	18.21
Lakhanpur	Belpahar OCP	Piezometer No MIP 07; Infront of DAV school Bandbahal, Inside colony substation.	19-May-20	7
Lakhanpur	Belpahar OCP	Piezometer No MIP 07; Infront of DAV school Bandbahal, Inside colony substation.	06-Nov-20	6
Lakhanpur	Belpahar OCP	Piezometer No MIP 07; Infront of DAV school Bandbahal, Inside colony substation.	13-Jan-21	6.52
Lakhanpur	Belpahar OCP	Piezometer No MIP 08; Village Kusraloi, Inside the premises of Prathamik Vidyalaya	13-May-20	6
Lakhanpur	Belpahar OCP	Piezometer No MIP 08; Village Kusraloi, Inside the premises of Prathamik Vidyalaya	06-Nov-20	4
Lakhanpur	Belpahar OCP	Piezometer No MIP 08; Village Kusraloi, Inside the premises of Prathamik Vidyalaya	13-Jan-21	5.27
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 09; Village Junion; Inside the premisses of State Govt. Horticulture Institute.	14-May-20	8
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 09; Village Junion; Inside the premisses of State Govt. Horticulture Institute.	06-Nov-20	7
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 09; Village Junion; Inside the premisses of State Govt. Horticulture Institute.	13-Jan-21	3.46
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 10; Village Dahaldera; Inside the premisses of UP school.	02-May-20	15
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 10; Village Dahaldera; Inside the premisses of UP school.	06-Nov-20	14
Lakhanpur	Lakhanpur OCP	Piezometer No MIP 10; Village Dahaldera; Inside the premisses of UP school.	13-Jan-21	14.13
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 13; Village Tumlia; Inside the campus of Manikeswari College.	14-Jan-21	4.49
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 15; Back side of Sardega Primary school.	05-May-20	7
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 15; Back side of Sardega Primary school.	04-Nov-20	4
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 15; Back side of Sardega Primary school.	12-Jan-21	6.13
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 16; Village Kulhparha (new basti) on the road from Sardega to Gopalpur.	05-May-20	18
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 16; Village Kulhparha (new basti) on the road from Sardega to Gopalpur.	04-Nov-20	5
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 16; Village Kulhparha (new basti) on the road from Sardega to Gopalpur.	12-Jan-21	18.85
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 17; Village Gopalpur; CMPDI Exploration camp.	05-May-20	12

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Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 17; Village Gopalpur; CMPDI Exploration camp.	04-Nov-20	8
Mahalaxmi	Basundhara (W) OCP	Piezometer No MIP 17; Village Gopalpur; CMPDI Exploration camp.	12-Jan-21	11.8
Basundhara	Kulda OCP	Piezometer No MIP 01; Village Garjanbahal (village school campus)	05-May-20	11
Basundhara	Kulda OCP	Piezometer No MIP 01; Village Garjanbahal (village school campus)	04-Nov-20	8
Basundhara	Kulda OCP	Piezometer No MIP 01; Village Garjanbahal (village school campus)	12-Jan-21	12.7
Basundhara	Kulda OCP	Piezometer No MIP 11; Village Karlikachar; Infront of Primary school.	03-May-20	14
Basundhara	Kulda OCP	Piezometer No MIP 11; Village Karlikachar; Infront of Primary school.	04-Nov-20	10
Basundhara	Kulda OCP	Piezometer No MIP 11; Village Karlikachar; Infront of Primary school.	12-Jan-21	10.3
Basundhara	Kulda OCP	Piezometer No MIP 12; Village Balinga; MCL office.	05-May-20	2
Basundhara	Kulda OCP	Piezometer No MIP 12; Village Balinga; MCL office.	04-Nov-20	4
Basundhara	Kulda OCP	Piezometer No MIP 12; Village Balinga; MCL office.	12-Jan-21	4.49
Basundhara	Kulda OCP	Piezometer No MIP 14; Village Kulda; Primary school campus.	05-May-20	55
Basundhara	Kulda OCP	Piezometer No MIP 14; Village Kulda; Primary school campus.	04-Nov-20	56
Basundhara	Kulda OCP	Piezometer No MIP 14; Village Kulda; Primary school campus.	12-Jan-21	18.12
Orient	HBI	Piezometer No MIP 05; Village Chaulibera; Inside nursing high school campus (Reported only)	14-Jan-21	29.57
Orinet	Orient Mine No. 1 & 2	Piezometer No MIP 03; Beside Ib valley GM house.	02-May-20	7
Orinet	Orient Mine No. 1 & 2	Piezometer No MIP 03; Beside Ib valley GM house.	06-Nov-20	7
Orinet	Orient Mine No. 1 & 2	Piezometer No MIP 03; Beside Ib valley GM house.	14-Jan-21	7.53
Orinet	Orient Mine No. 3	Piezometer No MIP 05; Village Chaulibera; Inside narsing high school campus	13-May-20	35
Orinet	Orient Mine No. 3	Piezometer No MIP 05; Village Chaulibera; Inside narsing high school campus	06-Nov-20	27
Orinet	Orient Mine No. 3	Piezometer No MIP 05; Village Chaulibera; Inside nursing high school campus	14-Jan-21	29.57



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HEAVY METAL QUANTITY IN AIR

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JOB NO.750001

3.9 TABLES FOR HEAVY METAL QUANTITY DATA

August 2020

Table:196

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Aug-20	4.32	<0.1	<1.0	<1.0
06-Aug-20	4.76	<0.1	<1.0	<1.0
12-Aug-20	4.01	<0.1	<1.0	<1.0
13-Aug-20	3.96	<0.1	<1.0	<1.0
20-Aug-20	1.28	<0.1	<1.0	<1.0
21-Aug-20	0.96	<0.1	<1.0	<1.0
27-Aug-20	0.81	<0.1	<1.0	<1.0
28-Aug-20	1.37	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:197

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Aug-20	3.74	<0.1	<1.0	<1.0
06-Aug-20	3.94	<0.1	<1.0	<1.0
13-Aug-20	4.12	<0.1	<1.0	<1.0
14-Aug-20	4.53	<0.1	<1.0	<1.0
21-Aug-20	2.31	<0.1	<1.0	<1.0
22-Aug-20	1.56	<0.1	<1.0	<1.0
28-Aug-20	1.21	<0.1	<1.0	<1.0
29-Aug-20	1.86	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:198

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Aug-20	1.43	<0.1	<1.0	<1.0
06-Aug-20	0.86	<0.1	<1.0	<1.0
13-Aug-20	1.50	<0.1	<1.0	<1.0
14-Aug-20	2.01	<0.1	<1.0	<1.0
21-Aug-20	3.23	<0.1	<1.0	<1.0
22-Aug-20	2.81	<0.1	<1.0	<1.0
28-Aug-20	1.97	<0.1	<1.0	<1.0
29-Aug-20	2.93	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:199

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Aug-20	3.71	<0.1	<1.0	<1.0
03-Aug-20	3.14	<0.1	<1.0	<1.0
11-Aug-20	3.86	<0.1	<1.0	<1.0
12-Aug-20	3.43	<0.1	<1.0	<1.0
18-Aug-20	<0.1	<0.1	<1.0	<1.0
19-Aug-20	<0.1	<0.1	<1.0	<1.0
25-Aug-20	0.53	<0.1	<1.0	<1.0
26-Aug-20	<0.1	<0.1	<1.0	<1.0
31-Aug-20	0.48	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:200

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Aug-20	1.46	<0.1	<1.0	<1.0
04-Aug-20	1.80	<0.1	<1.0	<1.0
10-Aug-20	2.09	<0.1	<1.0	<1.0
11-Aug-20	2.43	<0.1	<1.0	<1.0
18-Aug-20	3.53	<0.1	<1.0	<1.0
19-Aug-20	2.14	<0.1	<1.0	<1.0
25-Aug-20	1.96	<0.1	<1.0	<1.0
26-Aug-20	2.78	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:201

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Aug-20	3.14	<0.1	<1.0	<1.0
04-Aug-20	2.86	<0.1	<1.0	<1.0
10-Aug-20	1.96	<0.1	<1.0	<1.0
11-Aug-20	2.14	<0.1	<1.0	<1.0
18-Aug-20	<0.1	<0.1	<1.0	<1.0
19-Aug-20	1.52	<0.1	<1.0	<1.0
25-Aug-20	1.29	<0.1	<1.0	<1.0
26-Aug-20	2.01	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:202

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Aug-20	4.21	<0.1	<1.0	<1.0
04-Aug-20	3.81	<0.1	<1.0	<1.0
10-Aug-20	4.12	<0.1	<1.0	<1.0
11-Aug-20	4.01	<0.1	<1.0	<1.0
18-Aug-20	<0.1	<0.1	<1.0	<1.0
19-Aug-20	<0.1	<0.1	<1.0	<1.0
25-Aug-20	<0.1	<0.1	<1.0	<1.0
26-Aug-20	4.32	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:203

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Aug-20	3.86	<0.1	<1.0	<1.0
04-Aug-20	4.14	<0.1	<1.0	<1.0
10-Aug-20	3.72	<0.1	<1.0	<1.0
11-Aug-20	4.01	<0.1	<1.0	<1.0
18-Aug-20	3.81	<0.1	<1.0	<1.0
19-Aug-20	2.90	<0.1	<1.0	<1.0
25-Aug-20	4.21	<0.1	<1.0	<1.0
26-Aug-20	2.87	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:203

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Aug-20	3.96	<0.1	<1.0	<1.0
06-Aug-20	4.23	<0.1	<1.0	<1.0
12-Aug-20	3.42	<0.1	<1.0	<1.0
13-Aug-20	4.01	<0.1	<1.0	<1.0
21-Aug-20	2.56	<0.1	<1.0	<1.0
22-Aug-20	2.89	<0.1	<1.0	<1.0
28-Aug-20	1.79	<0.1	<1.0	<1.0
29-Aug-20	3.02	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:204

<i>Project</i>	HBI MINE			
<i>Monitoring Station</i>	Rampur Sub Area (Reported)			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Aug-20	4.32	<0.1	<1.0	<1.0
06-Aug-20	4.76	<0.1	<1.0	<1.0
12-Aug-20	4.01	<0.1	<1.0	<1.0
13-Aug-20	3.96	<0.1	<1.0	<1.0
20-Aug-20	1.28	<0.1	<1.0	<1.0
21-Aug-20	0.96	<0.1	<1.0	<1.0
27-Aug-20	0.81	<0.1	<1.0	<1.0
28-Aug-20	1.37	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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September 2020

Table: 205

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Sep-20/1486	5.01	<0.1	<1.0	<1.0
04-Sep-20/1487	5.23	<0.1	<1.0	<1.0
10-Sep-20/1488	5.14	<0.1	<1.0	<1.0
11-Sep-20/1489	4.96	<0.1	<1.0	<1.0
17-Sep-20/1549	4.32	<0.1	<1.0	<1.0
18-Sep-20/1550	4.01	<0.1	<1.0	<1.0
22-Sep-20/1551	4.28	<0.1	<1.0	<1.0
23-Sep-20/1552	4.14	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:205

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Sep-20/1493	3.41	<0.1	<1.0	<1.0
05-Sep-20/1494	3.26	<0.1	<1.0	<1.0
11-Sep-20/1495	3.52	<0.1	<1.0	<1.0
12-Sep-20/1496	3.74	<0.1	<1.0	<1.0
18-Sep-20/1556	3.72	<0.1	<1.0	<1.0
19-Sep-20/1557	3.56	<0.1	<1.0	<1.0
25-Sep-20/1558	3.68	<0.1	<1.0	<1.0
26-Sep-20/1559	3.96	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:206

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Sep-201501	5.02	<0.1	<1.0	<1.0
05-Sep-20/1502	5.12	<0.1	<1.0	<1.0
11-Sep-20/1503	5.00	<0.1	<1.0	<1.0
12-Sep-20/1504	4.98	<0.1	<1.0	<1.0
18-Sep-20/1564	5.01	<0.1	<1.0	<1.0
19-Sep-20/1565	5.12	<0.1	<1.0	<1.0
25-Sep-20/1566	5.42	<0.1	<1.0	<1.0
26-Sep-20/1567	5.12	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:207

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Sep-20/1508	3.12	<0.1	<1.0	<1.0
07-Sep-20/1509	3.42	<0.1	<1.0	<1.0
08-Sep-20/1510	3.86	<0.1	<1.0	<1.0
15-Sep-20/1571	6.12	<0.1	<1.0	<1.0
16-Sep-20/1572	5.96	<0.1	<1.0	<1.0
21-Sep-20/1573	5.84	<0.1	<1.0	<1.0
22-Sep-20/1574	6.01	<0.1	<1.0	<1.0
29-Sep-20/1575	6.42	<0.1	<1.0	<1.0
30-Sep-20/1618				
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:208

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Sep-20/1515	4.27	<0.1	<1.0	<1.0
03-Sep-20/1516	4.74	<0.1	<1.0	<1.0
07-Sep-20/1517	4.23	<0.1	<1.0	<1.0
08-Sep-20/1518	4.76	<0.1	<1.0	<1.0
15-Sep-20/1582	3.82	<0.1	<1.0	<1.0
16-Sep-20/1583	3.74	<0.1	<1.0	<1.0
21-Sep-20/1584	3.90	<0.1	<1.0	<1.0
22-Sep-20/1585	3.84	<0.1	<1.0	<1.0
29-Sep-20//1586	3.99	<0.1	<1.0	<1.0
30-Sept-20/1601	3.94	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:209

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Sep-20/1522	5.12	<0.1	<1.0	<1.0
03-Sep-20/1523	5.24	<0.1	<1.0	<1.0
07-Sep-20/1524	5.76	<0.1	<1.0	<1.0
08-Sep-20/1525	5.48	<0.1	<1.0	<1.0
15-Sep-20/1590	5.12	<0.1	<1.0	<1.0
16-Sep-20/1591	5.04	<0.1	<1.0	<1.0
21-Sep-20/1592	5.32	<0.1	<1.0	<1.0
22-Sep-20/1593	4.98	<0.1	<1.0	<1.0
29-Sep-20/1594	5.36	<0.1	<1.0	<1.0
30-Sept-20/1618	5.32	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:210

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Sep-20/1529	2.70	<0.1	<1.0	<1.0
03-Sep-20/1530	2.86	<0.1	<1.0	<1.0
07-Sep-20/1531	2.54	<0.1	<1.0	<1.0
08-Sep-20/1532	2.92	<0.1	<1.0	<1.0
15-Sep-20/1598	3.14	<0.1	<1.0	<1.0
16-Sep-20/1599	3.52	<0.1	<1.0	<1.0
21-Sep-20/1600	3.76	<0.1	<1.0	<1.0
22-Sep-20/1602	4.01	<0.1	<1.0	<1.0
29-Sep-20/1603	4.92	<0.1	<1.0	<1.0
30-Sept-20/1619	4.23	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:211

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Sep-20/1533	2.80	<0.1	<1.0	<1.0
03-Sep-20/1534	2.42	<0.1	<1.0	<1.0
07-Sep-20/1535	2.91	<0.1	<1.0	<1.0
08-Sep-20/1536	3.01	<0.1	<1.0	<1.0
15-Sep-20/1604	4.54	<0.1	<1.0	<1.0
16-Sep-20/1605	4.46	<0.1	<1.0	<1.0
21-Sep-20/1606	4.82	<0.1	<1.0	<1.0
22-Sep-20/1607	4.94	<0.1	<1.0	<1.0
29-Sep-20/1608	4.52	<0.1	<1.0	<1.0
30-Sept-20/1620	4.72	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:212

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Sep-20/1492	3.82	<0.1	<1.0	<1.0
04-Sep-20/1538	3.01	<0.1	<1.0	<1.0
10-Sep-20/1539	4.46	<0.1	<1.0	<1.0
11-Sep-20/1540	4.50	<0.1	<1.0	<1.0
16-Sep-20/1555	3.44	<0.1	<1.0	<1.0
17-Sep-20/1610	3.14	<0.1	<1.0	<1.0
24-Sep-20/1611	3.92	<0.1	<1.0	<1.0
25-Sep-20/1612	3.54	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)



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JOB NO.750001

October 2020

Table:213

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Oct-20	4.12	<0.1	<1.0	<1.0
03-Oct-20	4.54	<0.1	<1.0	<1.0
08-Oct-20	4.32	<0.1	<1.0	<1.0
09-Oct-20	4.26	<0.1	<1.0	<1.0
16-Oct-20	2.31	<0.1	<1.0	<1.0
17-Oct-20	2.40	<0.1	<1.0	<1.0
21-Oct-20	2.52	<0.1	<1.0	<1.0
22-Oct-20	2.24	<0.1	<1.0	<1.0
30-Oct-20	2.37	<0.1	<1.0	<1.0
31-Oct-20	2.41	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:214

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Oct-20	3.12	<0.1	<1.0	<1.0
03-Oct-20	3.27	<0.1	<1.0	<1.0
09-Oct-20	3.34	<0.1	<1.0	<1.0
10-Oct-20	3.48	<0.1	<1.0	<1.0
16-Oct-20	3.21	<0.1	<1.0	<1.0
17-Oct-20	3.34	<0.1	<1.0	<1.0
22-Oct-20	3.48	<0.1	<1.0	<1.0
23-Oct-20	3.10	<0.1	<1.0	<1.0
30-Oct-20	3.30	<0.1	<1.0	<1.0
31-Oct-20	3.45	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:215

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Oct-20	2.47	<0.1	<1.0	<1.0
03-Oct-20	2.58	<0.1	<1.0	<1.0
09-Oct-20	2.31	<0.1	<1.0	<1.0
10-Oct-20	2.45	<0.1	<1.0	<1.0
16-Oct-20	4.01	<0.1	<1.0	<1.0
17-Oct-20	4.31	<0.1	<1.0	<1.0
22-Oct-20	4.18	<0.1	<1.0	<1.0
23-Oct-20	4.32	<0.1	<1.0	<1.0
30-Oct-20	4.24	<0.1	<1.0	<1.0
31-Oct-20	3.12	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:216

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Oct-20	4.32	<0.1	<1.0	<1.0
07-Oct-20	4.54	<0.1	<1.0	<1.0
13-Oct-20	4.61	<0.1	<1.0	<1.0
14-Oct-20	4.47	<0.1	<1.0	<1.0
20-Oct-20	3.21	<0.1	<1.0	<1.0
21-Oct-20	3.34	<0.1	<1.0	<1.0
28-Oct-20	3.04	<0.1	<1.0	<1.0
29-Oct-20	3.14	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:217

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Oct-20	2.72	<0.1	<1.0	<1.0
07-Oct-20	2.54	<0.1	<1.0	<1.0
14-Oct-20	2.68	<0.1	<1.0	<1.0
15-Oct-20	2.81	<0.1	<1.0	<1.0
19-Oct-20	2.32	<0.1	<1.0	<1.0
20-Oct-20	2.39	<0.1	<1.0	<1.0
28-Oct-20	2.48	<0.1	<1.0	<1.0
29-Oct-20	2.50	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:218

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Oct-20	3.01	<0.1	<1.0	<1.0
07-Oct-20	3.11	<0.1	<1.0	<1.0
14-Oct-20	2.48	<0.1	<1.0	<1.0
15-Oct-20	2.32	<0.1	<1.0	<1.0
20-Oct-20	2.34	<0.1	<1.0	<1.0
21-Oct-20	2.82	<0.1	<1.0	<1.0
28-Oct-20	2.98	<0.1	<1.0	<1.0
29-Oct-20	2.88	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:219

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Oct-20	3.01	<0.1	<1.0	<1.0
07-Oct-20	3.12	<0.1	<1.0	<1.0
14-Oct-20	3.09	<0.1	<1.0	<1.0
15-Oct-20	3.22	<0.1	<1.0	<1.0
20-Oct-20	4.01	<0.1	<1.0	<1.0
21-Oct-20	4.22	<0.1	<1.0	<1.0
29-Oct-20	3.97	<0.1	<1.0	<1.0
30-Oct-20	4.38	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:220

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Oct-20	4.23	<0.1	<1.0	<1.0
07-Oct-20	4.31	<0.1	<1.0	<1.0
14-Oct-20	4.52	<0.1	<1.0	<1.0
15-Oct-20	4.48	<0.1	<1.0	<1.0
20-Oct-20	2.74	<0.1	<1.0	<1.0
21-Oct-20	2.83	<0.1	<1.0	<1.0
29-Oct-20	2.64	<0.1	<1.0	<1.0
30-Oct-20	2.88	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:221

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Oct-20	2.01	<0.1	<1.0	<1.0
03-Oct-20	2.12	<0.1	<1.0	<1.0
08-Oct-20	2.41	<0.1	<1.0	<1.0
09-Oct-20	2.33	<0.1	<1.0	<1.0
13-Oct-20	2.27	<0.1	<1.0	<1.0
14-Oct-20	2.35	<0.1	<1.0	<1.0
20-Oct-20	3.52	<0.1	<1.0	<1.0
21-Oct-20	3.44	<0.1	<1.0	<1.0
28-Oct-20	3.57	<0.1	<1.0	<1.0
29-Oct-20	3.60	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:222

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	Rampur Sub Area (Reported)			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Oct-20	4.12	<0.1	<1.0	<1.0
03-Oct-20	4.54	<0.1	<1.0	<1.0
08-Oct-20	4.32	<0.1	<1.0	<1.0
09-Oct-20	4.26	<0.1	<1.0	<1.0
16-Oct-20	2.31	<0.1	<1.0	<1.0
17-Oct-20	2.40	<0.1	<1.0	<1.0
21-Oct-20	2.52	<0.1	<1.0	<1.0
22-Oct-20	2.24	<0.1	<1.0	<1.0
30-Oct-20	2.37	<0.1	<1.0	<1.0
31-Oct-20	2.41	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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JOB NO.750001

November 2020

Table:223

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Nov-2020	4.14	<0.1	<1.0	<1.0
06-Nov-2020	4.22	<0.1	<1.0	<1.0
12-Nov-2020	4.18	<0.1	<1.0	<1.0
13-Nov-2020	4.27	<0.1	<1.0	<1.0
19-Nov-2020	2.34	<0.1	<1.0	<1.0
20-Nov-2020	2.44	<0.1	<1.0	<1.0
26-Nov-2020	2.58	<0.1	<1.0	<1.0
27-Nov-2020	2.72	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:224

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Nov-2020	3.14	<0.1	<1.0	<1.0
07-Nov-2020	3.01	<0.1	<1.0	<1.0
12-Nov-2020	3.12	<0.1	<1.0	<1.0
13-Nov-2020	3.22	<0.1	<1.0	<1.0
20-Nov-2020	3.01	<0.1	<1.0	<1.0
21-Nov-2020	3.12	<0.1	<1.0	<1.0
26-Nov-2020	3.20	<0.1	<1.0	<1.0
27-Nov-2020	3.27	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:225

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
06-Nov-2020	3.86	<0.1	<1.0	<1.0
07-Nov-2020	3.78	<0.1	<1.0	<1.0
12-Nov-2020	3.66	<0.1	<1.0	<1.0
13-Nov-2020	3.81	<0.1	<1.0	<1.0
20-Nov-2020	4.01	<0.1	<1.0	<1.0
21-Nov-2020	4.12	<0.1	<1.0	<1.0
26-Nov-2020	4.32	<0.1	<1.0	<1.0
27-Nov-2020	4.44	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:226

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Nov-2020	2.52	<0.1	<1.0	<1.0
05-Nov-2020	2.48	<0.1	<1.0	<1.0
10-Nov-2020	2.68	<0.1	<1.0	<1.0
11-Nov-2020	2.54	<0.1	<1.0	<1.0
18-Nov-2020	4.82	<0.1	<1.0	<1.0
19-Nov-2020	4.96	<0.1	<1.0	<1.0
24-Nov-2020	4.88	<0.1	<1.0	<1.0
25-Nov-2020	5.01	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:227

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Nov-2020	4.01	<0.1	<1.0	<1.0
04-Nov-2020	4.18	<0.1	<1.0	<1.0
10-Nov-2020	4.22	<0.1	<1.0	<1.0
11-Nov-2020	4.31	<0.1	<1.0	<1.0
17-Nov-2020	2.52	<0.1	<1.0	<1.0
18-Nov-2020	2.48	<0.1	<1.0	<1.0
24-Nov-2020	2.39	<0.1	<1.0	<1.0
25-Nov-2020	2.51	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:228

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Nov-2020	4.37	<0.1	<1.0	<1.0
05-Nov-2020	4.52	<0.1	<1.0	<1.0
10-Nov-2020	4.59	<0.1	<1.0	<1.0
11-Nov-2020	4.62	<0.1	<1.0	<1.0
18-Nov-2020	3.12	<0.1	<1.0	<1.0
19-Nov-2020	3.09	<0.1	<1.0	<1.0
24-Nov-2020	3.21	<0.1	<1.0	<1.0
25-Nov-2020	3.25	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:229

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Nov-2020	3.01	<0.1	<1.0	<1.0
05-Nov-2020	3.14	<0.1	<1.0	<1.0
11-Nov-2020	3.12	<0.1	<1.0	<1.0
12-Nov-2020	3.27	<0.1	<1.0	<1.0
18-Nov-2020	4.82	<0.1	<1.0	<1.0
19-Nov-2020	4.78	<0.1	<1.0	<1.0
25-Nov-2020	4.91	<0.1	<1.0	<1.0
26-Nov-2020	4.98	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:230

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Nov-2020	3.52	<0.1	<1.0	<1.0
05-Nov-2020	3.48	<0.1	<1.0	<1.0
11-Nov-2020	3.50	<0.1	<1.0	<1.0
12-Nov-2020	3.48	<0.1	<1.0	<1.0
18-Nov-2020	3.12	<0.1	<1.0	<1.0
19-Nov-2020	3.14	<0.1	<1.0	<1.0
25-Nov-2020	3.18	<0.1	<1.0	<1.0
26-Nov-2020	3.22	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:231

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Nov-2020	3.72	<0.1	<1.0	<1.0
05-Nov-2020	3.81	<0.1	<1.0	<1.0
10-Nov-2020	3.88	<0.1	<1.0	<1.0
11-Nov-2020	3.78	<0.1	<1.0	<1.0
18-Nov-2020	4.01	<0.1	<1.0	<1.0
19-Nov-2020	4.12	<0.1	<1.0	<1.0
24-Nov-2020	4.22	<0.1	<1.0	<1.0
25-Nov-2020	4.31	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:232

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	Rampur Sub Area (Reported)			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
05-Nov-2020	4.14	<0.1	<1.0	<1.0
06-Nov-2020	4.22	<0.1	<1.0	<1.0
12-Nov-2020	4.18	<0.1	<1.0	<1.0
13-Nov-2020	4.27	<0.1	<1.0	<1.0
19-Nov-2020	2.34	<0.1	<1.0	<1.0
20-Nov-2020	2.44	<0.1	<1.0	<1.0
26-Nov-2020	2.58	<0.1	<1.0	<1.0
27-Nov-2020	2.72	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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December 2020

Table:233

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)
03-Dec-2020	2.86	<0.1	<1.0	<1.0
04-Dec-2020	2.80	<0.1	<1.0	<1.0
10-Dec-2020	2.89	<0.1	<1.0	<1.0
11-Dec-2020	2.94	<0.1	<1.0	<1.0
16-Dec-2020	2.14	<0.1	<1.0	<1.0
17-Dec-2020	2.18	<0.1	<1.0	<1.0
23-Dec-2020	2.20	<0.1	<1.0	<1.0
24-Dec-2020	2.28	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:234

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)
04-Dec-2020	3.62	<0.1	<1.0	<1.0
05-Dec-2020	3.74	<0.1	<1.0	<1.0
10-Dec-2020	3.82	<0.1	<1.0	<1.0
11-Dec-2020	3.69	<0.1	<1.0	<1.0
17-Dec-2020	3.42	<0.1	<1.0	<1.0
18-Dec-2020	3.48	<0.1	<1.0	<1.0
23-Dec-2020	3.54	<0.1	<1.0	<1.0
24-Dec-2020	3.58	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:235

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
04-Dec-2020	4.12	<0.1	<1.0	<1.0
05-Dec-2020	4.19	<0.1	<1.0	<1.0
10-Dec-2020	4.21	<0.1	<1.0	<1.0
11-Dec-2020	4.30	<0.1	<1.0	<1.0
17-Dec-2020	4.01	<0.1	<1.0	<1.0
18-Dec-2020	4.12	<0.1	<1.0	<1.0
23-Dec-2020	4.18	<0.1	<1.0	<1.0
24-Dec-2020	4.10	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:236

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Dec-2020	2.88	<0.1	<1.0	<1.0
03-Dec-2020	2.89	<0.1	<1.0	<1.0
08-Dec-2020	2.72	<0.1	<1.0	<1.0
09-Dec-2020	2.94	<0.1	<1.0	<1.0
15-Dec-2020	2.54	<0.1	<1.0	<1.0
16-Dec-2020	2.59	<0.1	<1.0	<1.0
21-Dec-2020	2.60	<0.1	<1.0	<1.0
22-Dec-2020	2.55	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:237

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
01-Dec-2020	4.22	<0.1	<1.0	<1.0
02-Dec-2020	4.28	<0.1	<1.0	<1.0
08-Dec-2020	4.36	<0.1	<1.0	<1.0
09-Dec-2020	4.41	<0.1	<1.0	<1.0
14-Dec-2020	3.74	<0.1	<1.0	<1.0
15-Dec-2020	3.82	<0.1	<1.0	<1.0
21-Dec-2020	3.88	<0.1	<1.0	<1.0
22-Dec-2020	3.70	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:238

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Dec-2020	3.89	<0.1	<1.0	<1.0
03-Dec-2020	3.74	<0.1	<1.0	<1.0
08-Dec-2020	3.62	<0.1	<1.0	<1.0
09-Dec-2020	3.59	<0.1	<1.0	<1.0
15-Dec-2020	4.36	<0.1	<1.0	<1.0
16-Dec-2020	4.44	<0.1	<1.0	<1.0
21-Dec-2020	4.50	<0.1	<1.0	<1.0
22-Dec-2020	4.41	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:239

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Dec-2020	2.12	<0.1	<1.0	<1.0
03-Dec-2020	2.18	<0.1	<1.0	<1.0
09-Dec-2020	2.28	<0.1	<1.0	<1.0
10-Dec-2020	2.14	<0.1	<1.0	<1.0
15-Dec-2020	3.54	<0.1	<1.0	<1.0
16-Dec-2020	3.58	<0.1	<1.0	<1.0
22-Dec-2020	3.61	<0.1	<1.0	<1.0
23-Dec-2020	3.68	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:240

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Dec-2020	3.99	<0.1	<1.0	<1.0
03-Dec-2020	4.01	<0.1	<1.0	<1.0
09-Dec-2020	4.14	<0.1	<1.0	<1.0
10-Dec-2020	3.86	<0.1	<1.0	<1.0
15-Dec-2020	3.52	<0.1	<1.0	<1.0
16-Dec-2020	3.48	<0.1	<1.0	<1.0
22-Dec-2020	3.59	<0.1	<1.0	<1.0
23-Dec-2020	3.64	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:241

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
02-Dec-2020	2.74	<0.1	<1.0	<1.0
03-Dec-2020	2.86	<0.1	<1.0	<1.0
08-Dec-2020	3.01	<0.1	<1.0	<1.0
09-Dec-2020	2.94	<0.1	<1.0	<1.0
15-Dec-2020	2.87	<0.1	<1.0	<1.0
16-Dec-2020	3.10	<0.1	<1.0	<1.0
21-Dec-2020	2.98	<0.1	<1.0	<1.0
22-Dec-2020	2.84	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:242

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	Rampur Sub Area (Reported)			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
03-Dec-2020	2.86	<0.1	<1.0	<1.0
04-Dec-2020	2.80	<0.1	<1.0	<1.0
10-Dec-2020	2.89	<0.1	<1.0	<1.0
11-Dec-2020	2.94	<0.1	<1.0	<1.0
16-Dec-2020	2.14	<0.1	<1.0	<1.0
17-Dec-2020	2.18	<0.1	<1.0	<1.0
23-Dec-2020	2.20	<0.1	<1.0	<1.0
24-Dec-2020	2.28	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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JOB NO.750001

February 2021

Table:243

<i>Project</i>	Samleswari OCP			
<i>Monitoring Station</i>	Rampur Sub Area			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
29-Jan-2021	2.36	<0.1	<1.0	<1.0
30-Jan-2021	2.29	<0.1	<1.0	<1.0
05-Feb-2021	2.46	<0.1	<1.0	<1.0
06-Feb-2021	2.44	<0.1	<1.0	<1.0
11-Feb-2021	4.08	<0.1	<1.0	<1.0
12-Feb-2021	4.12	<0.1	<1.0	<1.0
18-Feb-2021	4.16	<0.1	<1.0	<1.0
19-Feb-2021	4.01	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:244

<i>Project</i>	Lakhanpur OCP			
<i>Monitoring Station</i>	South West of Quarry 6			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
30-Jan-21	2.12	<0.1	<1.0	<1.0
01-Feb-21	2.18	<0.1	<1.0	<1.0
04-Feb-21	2.24	<0.1	<1.0	<1.0
05-Feb-21	2.18	<0.1	<1.0	<1.0
06-Feb-21	2.2	<0.1	<1.0	<1.0
12-Feb-21	3.36	<0.1	<1.0	<1.0
13-Feb-21	3.32	<0.1	<1.0	<1.0
18-Feb-2021	3.48	<0.1	<1.0	<1.0
19-Feb-21	3.4	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:245

<i>Project</i>	Lajkura OCP			
<i>Monitoring Station</i>	Khokelmal			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
30-Jan-2021	3.52	<0.1	<1.0	<1.0
01-Feb-2021	3.64	<0.1	<1.0	<1.0
05-Feb-2021	3.70	<0.1	<1.0	<1.0
06-Feb-2021	3.69	<0.1	<1.0	<1.0
12-Feb-2021	4.02	<0.1	<1.0	<1.0
13-Feb-2021	4.27	<0.1	<1.0	<1.0
18-Feb-2021	4.32	<0.1	<1.0	<1.0
19-Feb-2021	4.19	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:246

<i>Project</i>	Belpahar OCP			
<i>Monitoring Station</i>	Near Central Workshop			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
28-Jan-2021	3.78	<0.1	<1.0	<1.0
29-Jan-2021	3.69	<0.1	<1.0	<1.0
03-Feb-2021	3.70	<0.1	<1.0	<1.0
04-Feb-2021	3.66	<0.1	<1.0	<1.0
10-Feb-2021	2.89	<0.1	<1.0	<1.0
11-Feb-2021	2.87	<0.1	<1.0	<1.0
16-Feb-2021	2.76	<0.1	<1.0	<1.0
17-Feb-2021	2.80	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:247

<i>Project</i>	Basundhara (W) OCP			
<i>Monitoring Station</i>	Near Internal Dump and CT Road of Basundhara/Gopalpur			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
27-Jan-2021	4.01	<0.1	<1.0	<1.0
28-Jan-2021	4.12	<0.1	<1.0	<1.0
03-Feb-2021	4.08	<0.1	<1.0	<1.0
04-Feb-2021	4.17	<0.1	<1.0	<1.0
09-Feb-2021	3.57	<0.1	<1.0	<1.0
10-Feb-2021	3.48	<0.1	<1.0	<1.0
16-Feb-2021	3.61	<0.1	<1.0	<1.0
17-Feb-2021	3.59	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:248

<i>Project</i>	Kulda OCP			
<i>Monitoring Station</i>	West of Working Face			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
28-Jan-2021	4.01	<0.1	<1.0	<1.0
29-Jan-2021	4.12	<0.1	<1.0	<1.0
03-Feb-2021	4.19	<0.1	<1.0	<1.0
10-Feb-2021	4.01	<0.1	<1.0	<1.0
11-Feb-2021	4.18	<0.1	<1.0	<1.0
16-Feb-2021	4.12	<0.1	<1.0	<1.0
17-Feb-2021	4.22	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

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Table:249

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Kushra Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
28-Jan-2021	4.02	<0.1	<1.0	<1.0
29-Jan-2021	3.86	<0.1	<1.0	<1.0
04-Feb-2021	3.91	<0.1	<1.0	<1.0
05-Feb-2021	3.86	<0.1	<1.0	<1.0
10-Feb-2021	2.52	<0.1	<1.0	<1.0
11-Feb-2021	4.20	<0.1	<1.0	<1.0
17-Feb-2021	2.38	<0.1	<1.0	<1.0
18-Feb-2021	2.42	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:250

<i>Project</i>	Garjanbahal OCP			
<i>Monitoring Station</i>	Siarmal Village			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
28-Jan-2021	3.91	<0.1	<1.0	<1.0
29-Jan-2021	3.96	<0.1	<1.0	<1.0
04-Feb-2021	3.79	<0.1	<1.0	<1.0
05-Feb-2021	3.88	<0.1	<1.0	<1.0
10-Feb-2021	2.39	<0.1	<1.0	<1.0
11-Feb-2021	2.55	<0.1	<1.0	<1.0
17-Feb-2021	2.61	<0.1	<1.0	<1.0
18-Feb-2021	2.57	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:251

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	VIP Guest House, IB Valley			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
28-Jan-2021	2.86	<0.1	<1.0	<1.0
29-Jan-2021	2.79	<0.1	<1.0	<1.0
03-Feb-2021	2.91	<0.1	<1.0	<1.0
10-Feb-2021	3.17	<0.1	<1.0	<1.0
11-Feb-2021	3.18	<0.1	<1.0	<1.0
16-Feb-2021	3.22	<0.1	<1.0	<1.0
17-Feb-2021	3.28	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Table:252

<i>Project</i>	Orient Mine No. 1 & 2			
<i>Monitoring Station</i>	Rampur Sub Area (Reported)			
<i>Date of sampling</i>	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)
29-Jan-2021	2.36	<0.1	<1.0	<1.0
30-Jan-2021	2.29	<0.1	<1.0	<1.0
05-Feb-2021	2.46	<0.1	<1.0	<1.0
06-Feb-2021	2.44	<0.1	<1.0	<1.0
11-Feb-2021	4.08	<0.1	<1.0	<1.0
12-Feb-2021	4.12	<0.1	<1.0	<1.0
18-Feb-2021	4.16	<0.1	<1.0	<1.0
19-Feb-2021	4.01	<0.1	<1.0	<1.0
Standard	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)

Observations:

- Lead (Pb), Arsenic (As), Nickel (Ni), Chromium (Cr) & Cadmium (Cd) were found to be below detectable limits for month of June, July, August, September, October, November, December 2020, January, February 2021

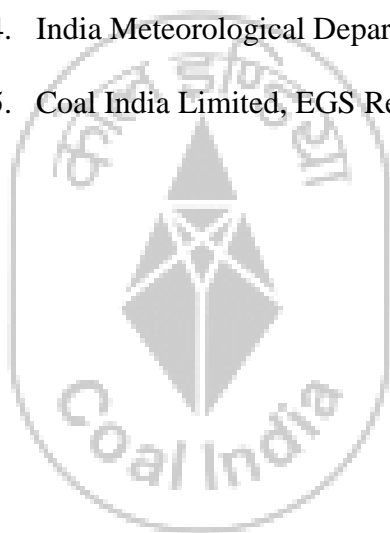
4. RECOMENDATIONS

Even though the Air Quality has been observed to be close to the satisfactory limit, following is recommended to employ adequate pollution control measures to further improve the air quality in the region:

1. Increased use of blast-less mining technology, eliminating dust generating operations like drilling, blasting & crushing.
2. Major thrust should be on transportation of coal through development of Rail, Belt, & Rapid Loading System infrastructure.
3. Environmental Control Measures such as installation of Fixed Sprinkler at CT road and deployment of Fog Canon (both fixed and mobile) at various site must be increased.
4. Frequency of Mechanical Road sweeping in and around residential areas, and office premises must be increased.
5. Water tanks with retrofitted kits for water sprinkling must be deployed in the haul roads for effective dust control, avoiding sludge & mud formation.
6. Vigorous plantation of draught tolerant fruit bearing trees such as Pomegranate, Figs, Guava must be undertaken to not only provide revival of biodiversity in the region but also help in aiding India's Food Security.
7. Vertical gardening near railway siding, office premises and workshop must be taken up to increases aesthetics of the area.
8. Sustainability of water resource & its source is atmost important thus adding of lime wherever the source is acidic with necessary step for removal of precipitate and addition of Aluminium Sulphate as coagulant to aid in settling of suspended particulate matter.

5 REFERENCE

1. Geological Survey of India, Final report on exploration for Coal by scout drilling in Chadchadi block, Talcher Coalfield, Sambalpur and Deogarh districts, Odisha
2. According to Geological Survey of India, the Talcher Coalfield has reserves of 51 billion tonnes, the highest in India.~ "Coal Resources of India (As on 1.1.2004)" (PDF). *Coal Wing, Geological Survey of India, Kolkata. Archived from the original* (PDF) on 27 March 2012. Retrieved 30 November 2012.
3. Observed Rainfall Variability and Changes Over Odisha State Report 2020, IMD
4. India Meteorological Department, Government of India.
5. Coal India Limited, EGS Report 2019-2020



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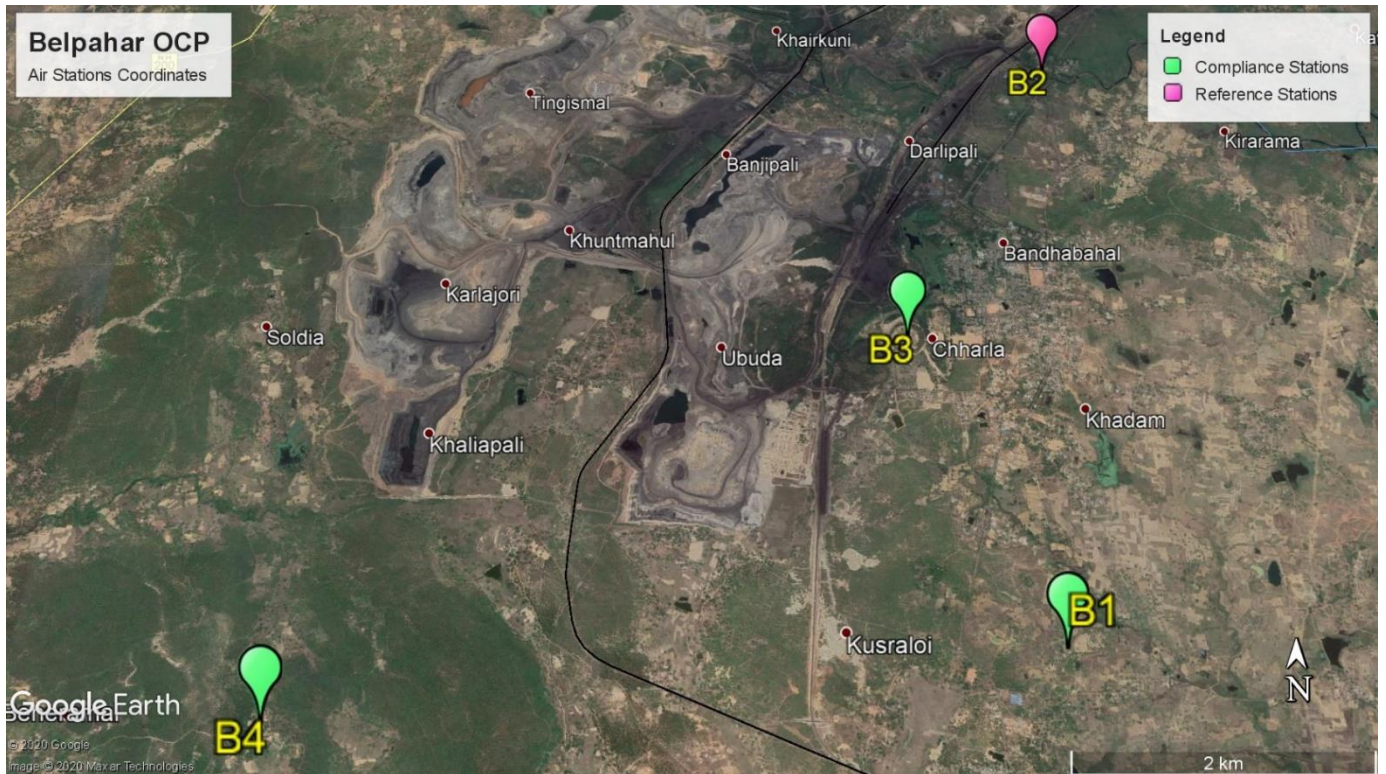
6 ANNEXURES



Name of the Project	Name of the stations	PID	Latitude	Longitude
Basundhara (w) OCP	CHP, CT Road	BA1	22.063722 N	83.738889 E
	Near Coal Stock of Basundhara (W) OCP	BA2	22.068622 N	83.730303 E
	North of the Sardega Railway Siding	BA3	22.006252 N	83.73303 E
	Sarangijharia Community Centre	BA4	22.06333 N	83.73469 E
	Near Internal Dump and CT Road of Basundhara/Gopalpur	BA5	22.063167 N	83.739861 E

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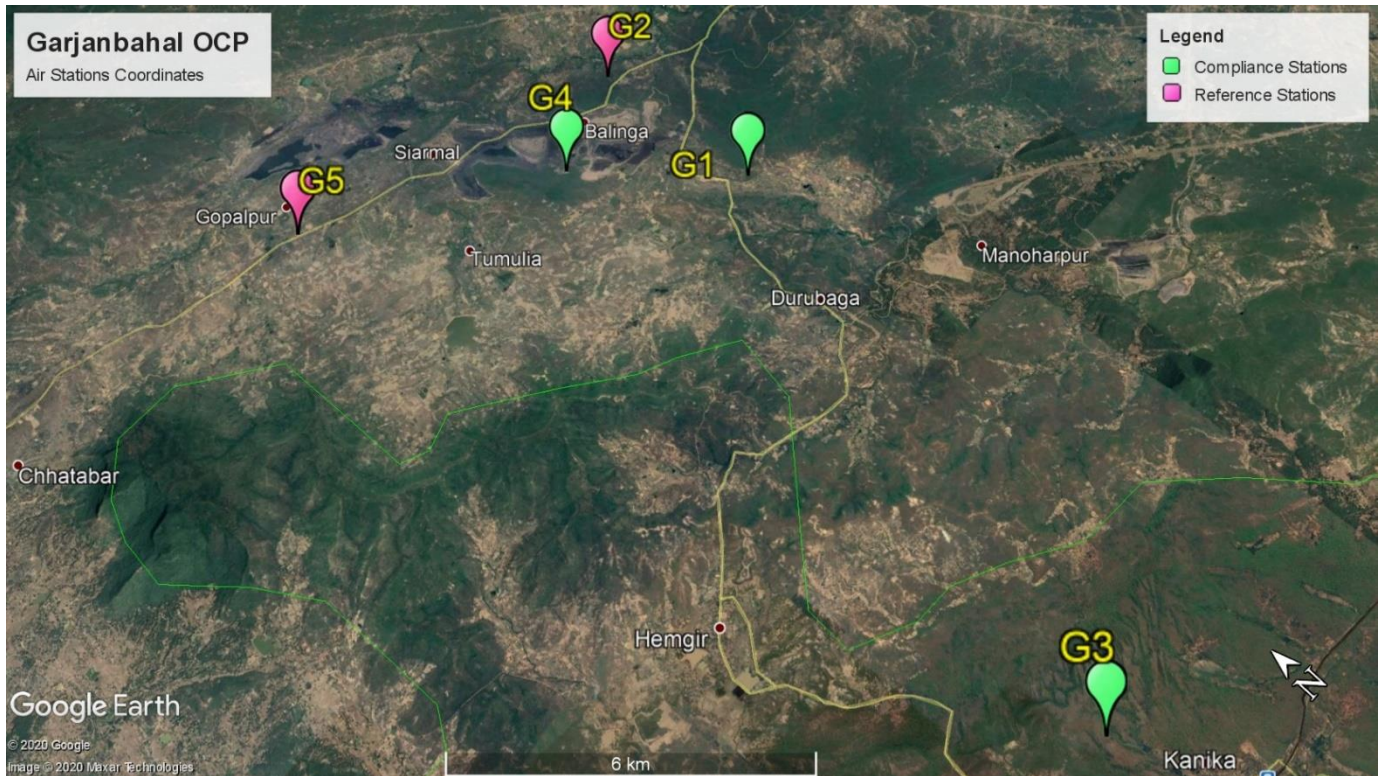
JOB NO.750001



Name of the Project	Name of the stations	PID	Latitude	Longitude
Belpahar OCP	East of the Mine	B1	21.724506 N	83.867225 E
	Near Central Workshop	B2	21.771514 N	83.872750 E
	Near Magazine House	B3	21.746669 N	83.858742 E
	South of the Mine	B4	21.720022 N	83.814728 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Garjanbahal OCP	220 KV Substation	G1	22.000000 N	83.771467 E
	Kushra Village	G2	22.033333 N	83.770061 E
	Near Coal Sampling Lab	G3	21.897484 N	83.731845 E
	North West of Coalface (Camp Office)	G4	22.02440278 N	83.74861111 E
	Siarmal Village	G5	22.050000 N	83.704833 E

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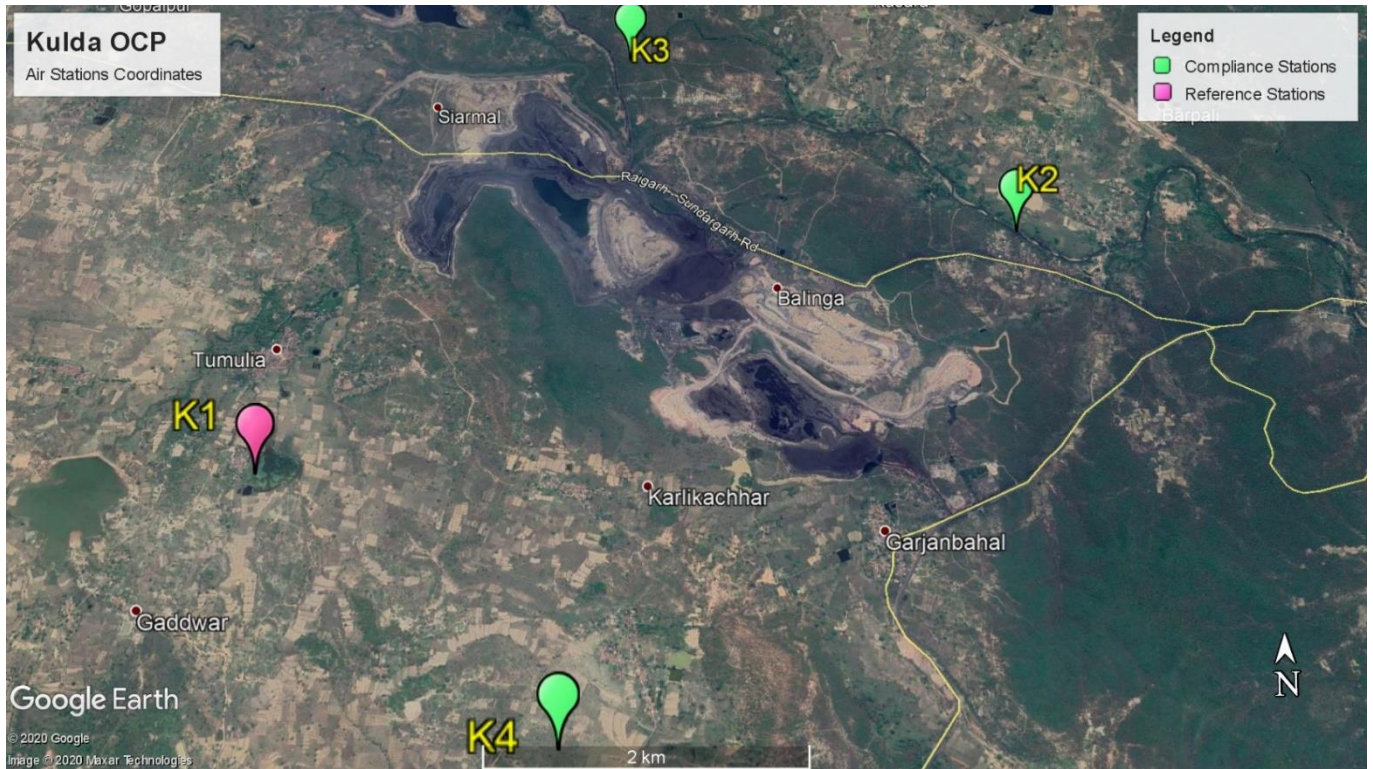
JOB NO.750001



Name of the Project	Name of the stations	PID	Latitude	Longitude
Hirakand Bundia Mine (HBM)	Bundia Colony Pump House	HK1	21.78898280 N	83.91575350 E
	HBI Mine	HK2	21.78246910 N	83.91489650 E
	Rampur Officers Guest House	HK3	21.80124330 N	83.92240030 E
	Rampur Sub Area (Reported Only)	HK4	21.802067 N	83.925096 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Kulda OCP	West of Working Face	K1	22.016667 N	83.723294 E
	External CT Road	K2	22.033333 N	83.776178 E
	North of CHP	K3	22.048583 N	83.748000 E
	South of Working Face	K4	22.000000 N	83.743708 E

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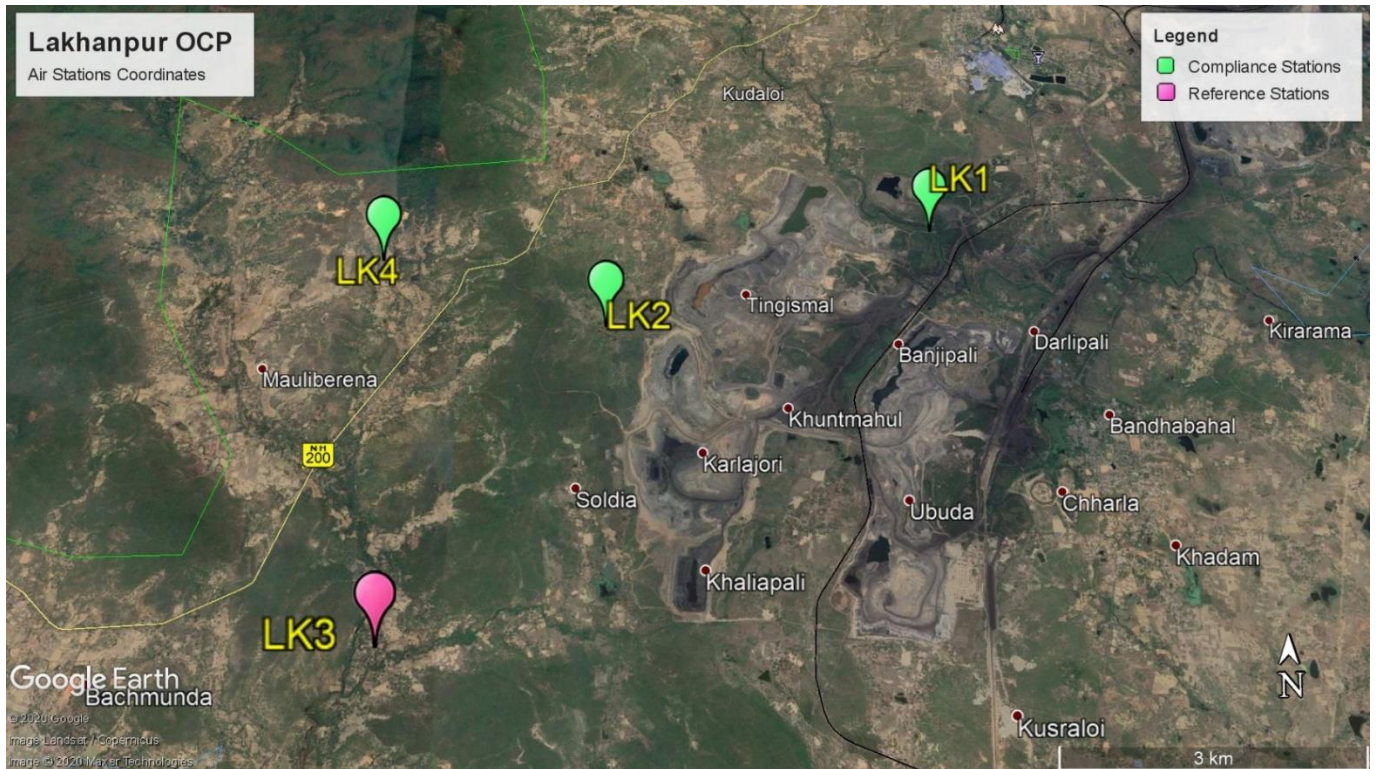
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Name of the Project	Name of the stations	PID	Latitude	Longitude
Lajkura OCP	Near Project Office	LJ1	21.822439 N	83.91856 E
	Near South Coal Stock	LJ2	21.812652 N	83901910 E
	VIP Guest House IB Valley	LJ3	21.836951 N	83914797 E
	Khokelmal	LJ4	21.814918 N	83.8783.41 E

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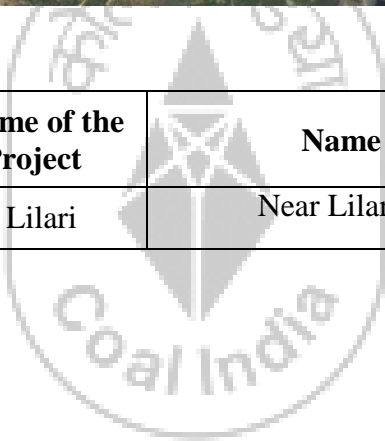
Name of the Project	Name of the stations	PID	Latitude	Longitude
Lakhanpur OCP	Near Lilari Nallah Pump House	LK1	21.77715 N	83.85041 E
	Near Quarry 3	LK2	21.76569 N	83.81303 E
	South West of Quarry 6	LK3	21.73274 N,	83.79101 E
	West of Quarry 3	LK4	21.77424 N	83.78746 E

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Name of the Project	Name of the stations	PID	Latitude	Longitude
Lilari	Near Lilari Magazine House	LI1	21.78599 N	83.85405 E



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Name of the Project	Name of the stations	PID	Latitude	Longitude
Lilari	Orient Mine No.2	OR1	21.833595 N	83.917749 E
	VIP Guest House IB Valley	OR2	21.836951 N	83914797 E

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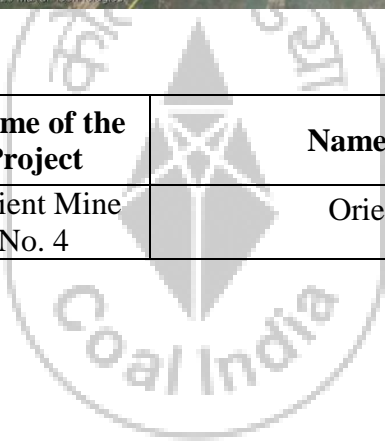
Name of the Project	Name of the stations	PID	Latitude	Longitude
Orient Mine No. 3	Orient Mine No. 3	OR3	21.84 N	83.90 E

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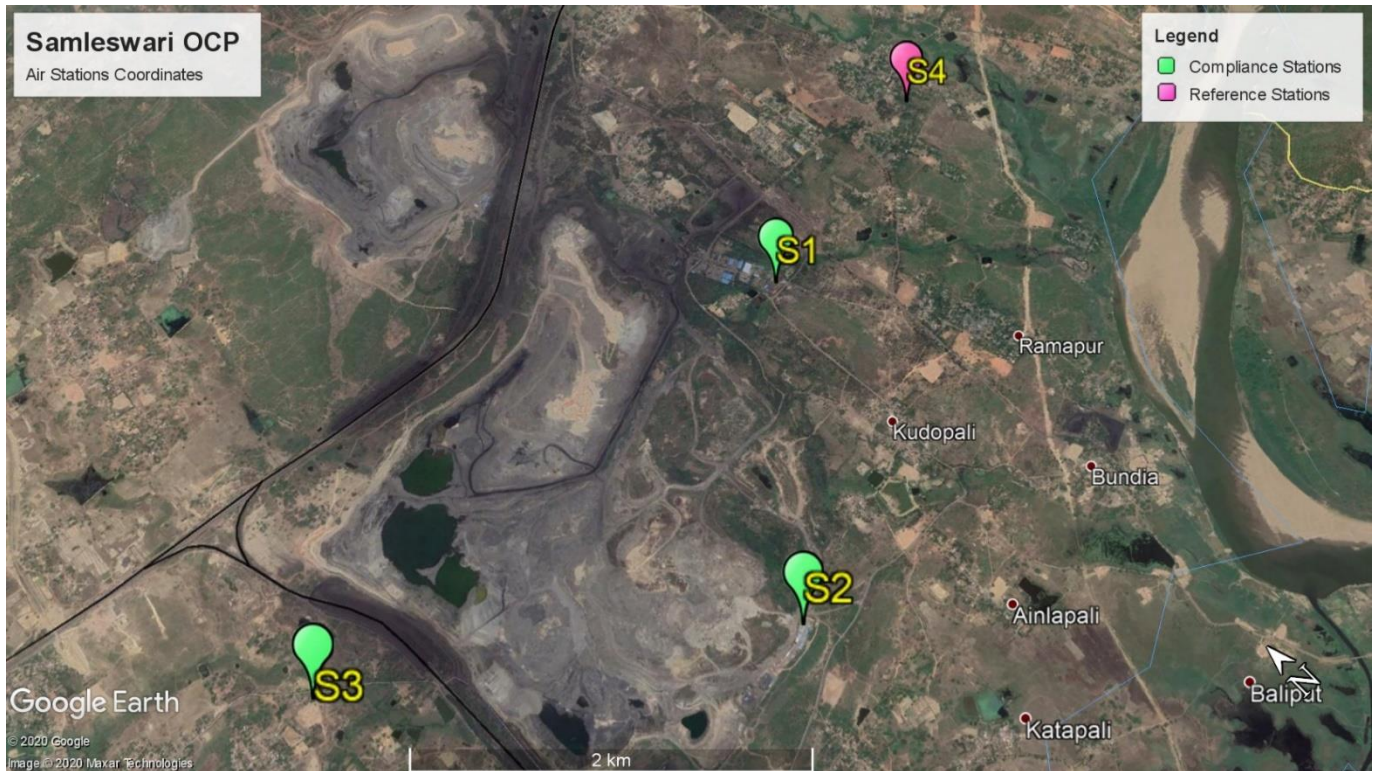
Name of the Project	Name of the stations	PID	Latitude	Longitude
Orient Mine No. 4	Orient Mine No. 4	OR4	21.860112 N	83.911540 E



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Name of the Project	Name of the stations	PID	Latitude	Longitude
Samaleswari OCP	RCP Camp	S1	21.799289 N	83.910268 E
	South of the Mine	S2	21.785884 N	83.896962 E
	West of the Mine	S3	21.799403 N	83.877291 E
	Rampur Sub Area	S4	21.802067 N	83.925096 E

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