

Ref No. AKBTPL/ENVSTATEMENT/2021-22

Date: 02nd May 2022

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar-382010

Sub: Environmental Statement for the financial year ending 31st March, 2022 for M/s Adani Kandla Bulk Terminal Pvt Ltd (AKBTPL)

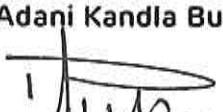
Ref: PCB ID: - 46110, Consent Order No. AWH – 105213

Dear Sir,

With reference to the above mentioned subject and reference, please find enclosed Environmental Statement in Form-V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for M/s **Adani Kandla Bulk Terminal Pvt Ltd, Ta. Anjar** for the financial year ending 31st March 2022.

Thank you,

Yours faithfully,
For Adani Kandla Bulk Terminal Pvt Ltd



Ajit Pisharody
(O&M Head – AKBTPL)

Encl: As above.

Copy to:

1. The Regional Officer, Gujarat Pollution Control Board, Gandhidham.

Adani Kandla Bulk Terminal Pvt Ltd
Adani House,
Nr Mithakali Circle, Navrangpura
Ahmedabad 380 009
Gujarat, India
CIN: U63090GJ2012PTC069305

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FORM V
(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2022

PART – A

- (i) Name and address of the Owner/
Occupier of the Industry Operation
or Process : Ajit Pisharody
O&M Head – AKBTPL
Adani Kandla Bulk Terminal Pvt Ltd.
Tuna Tekra, Taluka - Anjar
Dist. Kutch (Gujarat)
- (ii) Industry Category : Red – Large
Primary (STC Code) : NA
Secondary (STC Code) : NA
- (iii) Production Capacity : Dry Bulk Cargo Handling – 14 MMTPA
- (iv) Year of Establishment : 2011 – 12 (As per certification of incorporation date of company)
- (v) Date of last Environment Statement submitted : 20.04.2021

PART - B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu.Mtr./Day	
Process	Nil
Cooling (Used in sprinkling / gardening / dust suppression)	1163.73 m ³ /day*
Domestic	7.09 m ³ /day*

Name of Products	Process Water Consumption per unit of Product Output	
	During the previous financial year (2020– 21)	During the current financial year (2021 – 22)
Handling and Storage of dry bulk cargo*	7.17 MMT	6.96 MMT

(ii) Raw Material Consumption

Name of Raw Material	Name of Products	Consumption of Raw Material per Unit of output	
		During the previous financial year (2020 – 21)	During the current financial year (2021 – 22)
NIL*	Not Applicable	Nil	Nil

Note: AKBTPL is involved in logistic business, hence there no raw material being used.

PART – C
Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)

Pollutants	Pollution Load				
	Sr no	Parameter	Quantity of pollutants discharged (Mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	1	TSS	0.1126 Kg/day	15.9 (Mg/L)	No Deviation from prescribed standards
	2	BOD (3 Days @ 27 °C)	0.0967 (Kg/day)	13.6 (Mg/L)	
(b) Air	SS-1 DG Set- 1 (125 KVA)				
	1	PM (Mg/Nm ³)	0.1481 (Kg/day)	20.85 (Mg/Nm ³)	No Deviation from prescribed standards
Particulate Matter (mg/Nm ³)	2	So ₂ (PPM)	0.1612 (Kg/day)	8.70 (PPM)	
	3	Nox (PPM)	0.4454 (Kg/day)	33.41 (PPM)	
Sulphur Dioxide (PPM)	SS-2 DG Set- 2 (125 KVA)				
	1	PM (Mg/Nm ³)	0.1212 (Kg/day)	17.51 (Mg/Nm ³)	No Deviation from prescribed standards
Nitrogen Oxide (PPM)	2	So ₂ (PPM)	0.1168 (Kg/day)	6.46 (PPM)	
	3	Nox (PPM)	0.3693 (Kg/day)	28.41 (PPM)	
	SS-3 DG Set- 3 (125 KVA)				
	1	PM (Mg/Nm ³)	0.1528 (Kg/day)	18.61 (Mg/Nm ³)	No Deviation from prescribed standards
	2	So ₂ (PPM)	0.1120 (Kg/day)	5.22 (PPM)	
	3	Nox (PPM)	0.4063 (Kg/day)	26.35 (PPM)	
<ul style="list-style-type: none"> • DG sets kept only as standby power source and used only during power failure. • Analysis reports of DG stack monitoring and ambient air quality monitoring are enclosed as Annexure - 1. 					

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 2016)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
(a) From Process i. Oily Cotton Waste ii. Used Oil iii. Discarded Drum iv. Discarded oil filter	<u>Oily Cotton waste:-</u> Generation:-Approx. 4.22 MT Disposed:- 3.77 MT <u>Used Oil:-</u> Generation:- 4.729 MT Disposed:- 3.647 MT Reused:-3.552 MT (Used in Railway siding and MBU machine as a lubricant) <u>Discarded Drum</u> Generation:-Approx. 2.75 MT Disposed:- 2.56 MT <u>Discarded oil filter</u> Generation:-Approx. 0.900MT Disposed:- 0.600 MT <u>In Stock End of the year:-</u> 0.530 MT (Used Oil). 0.450 MT (Oily Cotton waste) 0.190MT (Discarded Drum) 0.300 MT (Discarded oil filter)	<u>Oily Cotton waste:-</u> Generation:-Approx. 2.80 MT Disposed:- 2.80 MT <u>Used Oil:-</u> Generation:- 5.400 MT Disposed:- 0.0 MT Reused:-3.800 MT (Used in Railway siding and MBU machine as a lubricant) <u>Discarded Drum</u> Generation:-Approx. 0.81 MT Disposed:- 0.0 MT <u>Discarded oil filter</u> Generation:-Approx. 0.50MT Disposed:- 0.0 MT <u>In Stock End of the year:-</u> 1.60 MT (Used Oil). 0.0 MT (Oily Cotton waste) 0.81 MT (Discarded Drum) 0.500 MT (Discarded oil filter)
(b) From Pollution Control facilities	Nil	Nil

*AKBTPL is involved in logistic business; hence there is no process waste Generated.

PART - E

Solid Waste

Solid Waste	Total Quantity Generated (MT/Annum)	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
(a) From Process (Ash)	Nil	Nil
(b) From Pollution Control facilities	Nil	Nil
(C-1)Quantity recycled or reutilized within the unit	7.041 MT (Food waste converted in to manure and utilized for horticulture purpose)	6.169 MT (Food waste converted in to manure and utilized for horticulture purpose)
(C-2) Sold	--	--
(C-3) Disposed	Approx. 57.910 MT (Garbage Waste)	Approx. 28.81 MT (Garbage Waste)

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

- Used oil is being sent to authorized recycler and also reusing for the lubrication purpose in stitching machine and railway siding.
- Oily cotton waste is being sent to common hazardous waste incineration facility (SEPPL) for the incineration process.
- Unit has developed MRF (Material recovery Facility) for Waste segregation as per 5R (Reduce, Reuse, Recycle, Recover & Reprocess) principles of waste management. Segregated recyclable materials sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plants for co-processing as RDF (Refused Derived Fuel).
- We are in process for agreement with cement unit i.e. Ambuja for co-processing of Hazardous and non-hazardous waste.
- Food waste is purely converted in to manure used by horticulture.
- Sludge generated from STP also used as manure by horticulture.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- Unit has installed Sewage Treatment Plant and for treatment of the Sewage water being generated at site.
- AKBTPL has planted mangroves in 250 ha area near Satsaida Bet (Kandla), Kutch sea coast. Unit has formed dedicated Horticulture department & developing green belt within port premises. So, far we have developed 15.89 Ha green belts within port premises and same is being well maintained.
- AKBTPL has taken significant step towards energy reduction program Reduced the idle running of Material handling system through PLC interlocking System stop in auto mode if idle up to 30 min's and controlling the speed of high speed conveyors (KC 2A/2C) with respect to load.
- The total cost incurred on environmental protection measures is enclosed as **Annexure-2** and the green belt developed so far enclosed as **Annexure-3**.

PART - H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

- Unit is doing Regular Environmental Monitoring of Port & surrounding area through reputed NABL certified Laboratory. All the required environmental parameters are well within specified limit & the details are being submitted regularly to GPCB, CPCB, MOEF & concerned authorities.
- Unit has installed STP for treatment of the Sewage water being generated at site. Unit has also provided dump pond & conveyance channel for collection of runoff generated from Coal Yard.
- Unit has installed OWC (organic waste converter) machine for treatment of daily food waste generated at site. Composting manure is being used by the horticulture department as an organic fertilizer.
- Unit has provided FFS & DSS at coal yard & conveyer system and carrying out regular water sprinkling to control the dust exposure.
- Unit has deployed two road sweeping machine to control the fugitive dust emissions.
- Unit is developing green belt within port and outside continually with help of Horticulture dept. Additional area covered under green-belt during FY 2021-22: 0.15 Ha.
- Continually taking new initiatives for protection of environment with respect to air-water-soil.
- Unit has hired 2 nos. Bouser for dust suppression ongoing sprinkling activity.
- Developed the entire unpaved area of Weighbridge complex and Fall Protection System (FPS) area. Also developed the road to the Pump-house.
- Fire Hydrant System with sprinkling in OSY 5 – Civil work has been started.

PART - I

Any other particulars for improving the quality of environment:

- Environmental awareness programs have been conducted for workmen at site.
- Integrated housekeeping and waste management being maintained regularly.
- AKBTPL has separate Environment Cell for environmental management.



Date : 02.05.2022

(Signature of a person carrying out an industry,
operation or process)

Name : Ajit Pisharody

Designation : O&M Head – AKBTPL

Address : Adani Kandla Bulk Terminal Pvt Ltd,
Tuna Tekra, Taluka Anjar, District Kutch (Gujarat)

Annexure - 1

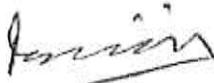
(Ambient Air Monitoring Reports)

"ENVIRONMENTAL MONITORING REPORT"

For

ADANI KANDLA BULK TERMINAL PRIVATE LIMITED.
KANDLA, KUTCH.

APRIL 2021 TO SEPTEMBER 2021



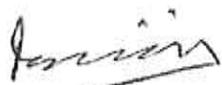
H. T. Shah
Lab Manager



Dr. ArunBajpai
Lab Manager (Q)

METHODS AND EQUIPMENTS USED FOR SAMPLING AND ANALYSIS

SR. NO.	Monitoring Details	Equipments Used	Sampling and Analysis Method
1	Ambient Air Quality Monitoring	RDS,FDS, Gaseous Attachment with Impinger	CPCB Guideline/IS:5182
2	Noise Monitoring	Noise Meter	IS 9876/IS 9989
3	Stack Monitoring	Stack Monitoring Sampler/Kit	IS:11255/NDIR Gas Analyzer

H. T. Shah
Lab Manager



Dr. Arun Bajpai
Lab Manager (Q)



NATIONAL AMBIENT AIR QUALITY STANDARDS DATED 16TH NOV.2009, CPCB NEW DELHI.

SR. NO.	TEST PARAMETER	UNIT	Concentration in ambient air	Method Of Measurement
1	Particulate Matter (PM ₁₀)	µg/m ³	100	IS:5182(Part 23) SOP AAQM SPM -01
2	Particulate Matter (PM _{2.5})	µg/m ³	60	SOP AAQM PM2.5 – 06
3	Sulphur Dioxide (SO ₂)	µg/m ³	80	IS:5182(Part 2): Improved West and Gaeke
4	Oxides of Nitrogen (NO ₂)	µg/m ³	80	IS:5182(Part6)Modified Jacob & Hochheiser (Na-Arsenite)

NS#: Not Specified, ** National Ambient Air Quality Standards Dated: 18/11/2009 as per Central Pollution Control Board, New Delhi.



H. T. Shah
Lab Manager

Dr. Arun Bajpai
Lab Manager (Q)



TABLE NO. 1 RESULTS OF AAQM FOR LC GATE NO.2 [APRIL 2021 TO SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	01/04/2021	50.27	26.42	11.20	22.44
2	05/04/2021	68.42	32.51	7.68	14.25
3	08/04/2021	57.58	21.29	12.86	28.54
4	12/04/2021	71.54	34.56	15.26	20.30
5	15/04/2021	62.63	28.67	8.24	16.50
6	19/04/2021	54.63	33.64	13.44	32.69
7	22/04/2021	49.54	24.67	10.63	19.28
8	26/04/2021	70.58	36.40	6.29	21.67
9	29/04/2021	59.32	27.59	16.22	24.59
10	03/05/2021	63.67	32.43	15.69	29.42
11	06/05/2021	81.52	44.53	13.38	21.27
12	10/05/2021	62.21	35.35	9.54	24.20
13	13/05/2021	74.57	39.40	12.36	17.82
14	17/05/2021	65.68	29.55	10.67	20.24
15	20/05/2021	56.32	36.56	16.40	23.43
16	24/05/2021	64.26	27.55	11.63	26.44
17	27/05/2021	53.47	24.54	14.36	22.43
18	31/05/2021	70.35	28.21	7.61	19.87
19	03/06/2021	65.43	24.63	10.26	21.67
20	07/06/2021	75.24	30.26	15.25	27.52
21	10/06/2021	68.48	33.43	8.58	17.54
22	14/06/2021	55.25	23.58	6.54	30.27
23	17/06/2021	64.24	35.64	14.54	26.57
24	21/06/2021	70.65	31.51	11.62	22.64
25	24/06/2021	53.33	28.63	7.59	15.32
26	28/06/2021	71.55	32.43	13.35	23.65
27	01/07/2021	59.38	28.59	7.56	23.46
28	05/07/2021	74.33	38.44	11.25	26.31
29	08/07/2021	64.24	29.43	14.67	29.44
30	12/07/2021	44.62	21.54	9.48	19.54
31	15/07/2021	69.37	41.53	15.24	25.34
32	19/07/2021	58.33	24.50	10.32	30.27
33	22/07/2021	70.35	33.47	8.57	18.68
34	26/07/2021	63.45	30.55	12.37	28.63
35	29/07/2021	51.35	23.54	18.40	20.26
36	02/08/2021	74.64	36.56	9.61	22.64
37	05/08/2021	52.44	26.46	16.44	33.53
38	09/08/2021	73.58	34.68	10.34	36.56
39	12/08/2021	63.46	30.47	13.51	29.35
40	16/08/2021	65.35	29.47	6.58	23.64
41	19/08/2021	54.65	25.33	8.66	26.50
42	23/08/2021	61.23	22.62	11.37	30.24
43	26/08/2021	50.37	28.63	7.52	25.41
44	30/08/2021	71.55	35.39	15.50	27.67
45	02/09/2021	56.34	29.43	10.32	17.68
46	06/09/2021	69.33	36.40	7.61	14.36
47	09/09/2021	54.65	23.46	12.80	27.61
48	13/09/2021	48.62	20.37	14.53	23.47
49	16/09/2021	52.41	31.68	11.54	28.42
50	20/09/2021	66.48	34.56	9.44	25.62
51	23/09/2021	46.36	15.36	15.31	21.23
52	27/09/2021	55.83	24.37	8.86	24.53
53	30/09/2021	62.48	30.30	6.45	15.64

H. T. Shah
Lab Manager
Dr. ArunBajpai
Lab Manager (Q)



TABLE NO. 2 RESULTS OF AAQM FOR STARTING OF PILE APPROACH [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	01/04/2021	66.97	33.49	15.61	25.20
2	05/04/2021	79.32	42.44	18.34	28.21
3	08/04/2021	85.63	36.20	20.35	31.29
4	12/04/2021	78.37	41.57	22.46	37.56
5	15/04/2021	69.58	37.57	16.17	27.24
6	19/04/2021	80.21	44.56	19.37	39.21
7	22/04/2021	72.54	35.24	12.71	23.48
8	26/04/2021	83.43	45.31	14.27	30.53
9	29/04/2021	75.36	38.57	21.54	33.42
10	03/05/2021	73.55	40.57	12.57	32.43
11	06/05/2021	86.34	52.68	10.50	36.26
12	10/05/2021	76.36	39.44	14.52	30.29
13	13/05/2021	84.42	43.23	16.29	27.58
14	17/05/2021	72.54	32.29	18.33	25.56
15	20/05/2021	81.31	46.56	20.27	31.28
16	24/05/2021	69.42	33.62	17.54	33.65
17	27/05/2021	77.28	41.19	19.55	37.62
18	31/05/2021	82.33	45.31	22.56	35.63
19	03/06/2021	70.33	28.67	19.53	30.40
20	07/06/2021	81.55	45.60	22.57	33.48
21	10/06/2021	78.66	40.19	16.28	28.36
22	14/06/2021	68.66	38.40	20.46	36.42
23	17/06/2021	73.68	42.44	17.59	34.52
24	21/06/2021	82.65	48.56	13.68	29.46
25	24/06/2021	67.52	34.58	18.66	35.62
26	28/06/2021	76.51	46.52	15.57	26.83
27	01/07/2021	79.63	32.58	13.58	33.40
28	05/07/2021	88.35	47.60	17.62	38.42
29	08/07/2021	75.37	51.26	20.37	31.63
30	12/07/2021	59.46	28.46	18.60	35.47
31	15/07/2021	74.52	45.31	21.40	27.53
32	19/07/2021	77.65	39.82	14.28	36.47
33	22/07/2021	83.52	42.57	19.18	28.31
34	26/07/2021	73.51	38.49	16.50	39.25
35	29/07/2021	60.24	31.58	23.48	26.54
36	02/08/2021	80.36	42.36	17.54	36.34
37	05/08/2021	68.58	35.66	14.53	30.36
38	09/08/2021	86.58	44.52	21.49	33.31
39	12/08/2021	79.63	39.53	15.63	37.66
40	16/08/2021	81.58	41.23	19.32	41.24
41	19/08/2021	67.62	34.58	16.52	34.56
42	23/08/2021	87.63	45.31	20.29	38.59
43	26/08/2021	72.54	40.24	13.23	35.41
44	30/08/2021	82.34	46.56	22.27	31.20
45	02/09/2021	74.12	39.40	16.56	24.64
46	06/09/2021	82.42	42.40	20.63	28.65
47	09/09/2021	72.62	36.28	18.64	34.26
48	13/09/2021	62.36	30.42	21.54	29.37
49	16/09/2021	84.34	47.52	23.50	32.45
50	20/09/2021	78.67	40.28	12.54	35.35
51	23/09/2021	56.84	22.26	17.70	27.55
52	27/09/2021	65.43	46.31	19.54	31.42
53	30/09/2021	76.82	38.86	14.23	25.48



H. T. Shah
Lab Manager

Dr. ArunBajpai
Lab Manager (Q)



TABLE NO. 3 RESULTS OF AAQM FOR SOUTH WEST CORNER AT PUMP HOUSE [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	01/04/2021	56.32	37.46	9.22	15.60
2	05/04/2021	62.31	22.52	15.36	18.38
3	08/04/2021	72.66	42.48	10.52	22.57
4	12/04/2021	65.61	31.52	17.57	32.10
5	15/04/2021	57.62	23.65	11.60	23.65
6	19/04/2021	69.44	36.41	16.49	35.31
7	22/04/2021	55.61	28.67	18.60	26.51
8	26/04/2021	75.46	41.56	12.90	27.52
9	29/04/2021	64.27	34.32	14.10	20.24
10	03/05/2021	54.26	24.65	10.26	20.41
11	06/05/2021	76.26	36.54	18.26	26.36
12	10/05/2021	52.38	31.52	12.49	29.53
13	13/05/2021	67.56	34.61	14.42	23.86
14	17/05/2021	55.34	25.53	6.52	16.23
15	20/05/2021	65.25	33.40	13.57	27.64
16	24/05/2021	57.56	22.52	15.23	18.23
17	27/05/2021	69.53	37.50	11.58	21.54
18	31/05/2021	62.46	32.40	16.67	25.22
19	03/06/2021	52.57	20.51	6.38	14.26
20	07/06/2021	70.24	34.53	10.53	21.95
21	10/06/2021	56.36	23.44	14.26	19.53
22	14/06/2021	62.43	35.66	8.40	24.56
23	17/06/2021	53.66	26.83	12.46	17.67
24	21/06/2021	63.56	37.50	9.24	26.36
25	24/06/2021	48.68	24.57	11.28	23.43
26	28/06/2021	61.54	27.58	7.69	15.65
27	01/07/2021	74.47	30.64	11.52	28.28
28	05/07/2021	80.32	43.53	6.57	31.55
29	08/07/2021	70.68	33.57	9.69	20.54
30	12/07/2021	49.52	24.65	13.44	25.43
31	15/07/2021	58.62	35.37	10.48	21.51
32	19/07/2021	66.50	21.85	8.33	33.77
33	22/07/2021	77.56	38.59	12.35	22.57
34	26/07/2021	68.45	34.53	14.25	26.27
35	29/07/2021	56.24	28.34	7.67	15.25
36	02/08/2021	53.54	39.39	13.55	26.37
37	05/08/2021	62.41	31.52	7.88	17.64
38	09/08/2021	79.55	28.50	16.77	21.52
39	12/08/2021	57.52	25.32	11.24	23.41
40	16/08/2021	70.51	33.65	17.61	27.51
41	19/08/2021	60.57	30.22	10.50	19.54
42	23/08/2021	74.58	35.41	6.25	25.34
43	26/08/2021	56.63	32.48	9.17	22.56
44	30/08/2021	77.56	38.55	12.37	20.66
45	02/09/2021	50.36	27.54	12.59	20.32
46	06/09/2021	74.52	39.47	9.75	18.66
47	09/09/2021	58.63	32.48	14.30	31.22
48	13/09/2021	52.52	22.60	10.70	19.33
49	16/09/2021	67.36	25.41	20.24	25.39
50	20/09/2021	57.55	26.37	6.51	28.34
51	23/09/2021	51.36	19.42	8.63	17.36
52	27/09/2021	60.42	28.46	15.77	29.57
53	30/09/2021	68.72	34.57	11.20	21.58

H. T. Shah
Lab Manager



Dr. Arun Bajpai
Lab Manager (Q)



TABLE NO. 4 RESULTS OF AAQM FOR NORTH EAST CORNER OF BACK UP AREA [APRIL 2021 - SEPTEMBER 2021]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	01/04/2021	76.52	30.58	19.58	28.38
2	05/04/2021	86.36	46.35	13.19	31.56
3	08/04/2021	78.80	49.34	22.36	36.27
4	12/04/2021	84.21	45.35	25.62	41.26
5	15/04/2021	79.61	34.53	20.62	38.33
6	19/04/2021	93.46	52.63	23.68	42.33
7	22/04/2021	77.64	42.35	15.18	30.21
8	26/04/2021	91.27	48.59	17.28	33.52
9	29/04/2021	83.65	44.35	24.29	37.24
10	03/05/2021	68.55	37.57	14.27	26.24
11	06/05/2021	92.38	31.24	12.69	37.52
12	10/05/2021	82.44	43.56	18.55	42.46
13	13/05/2021	90.28	46.51	22.45	34.57
14	17/05/2021	84.31	39.44	16.53	30.45
15	20/05/2021	94.25	53.42	25.24	35.26
16	24/05/2021	78.52	38.19	19.18	38.22
17	27/05/2021	81.22	44.60	24.59	28.50
18	31/05/2021	76.88	36.24	20.37	31.85
19	03/06/2021	79.53	35.61	22.60	33.52
20	07/06/2021	93.44	49.59	25.57	38.66
21	10/06/2021	84.55	29.46	19.89	31.57
22	14/06/2021	75.66	44.52	16.56	40.21
23	17/06/2021	82.42	48.22	21.57	29.54
24	21/06/2021	90.23	51.55	17.90	32.45
25	24/06/2021	59.62	30.54	23.84	28.55
26	28/06/2021	87.52	43.39	18.41	35.43
27	01/07/2021	86.36	38.44	15.61	37.52
28	05/07/2021	94.54	53.50	22.34	42.37
29	08/07/2021	81.55	48.64	25.40	35.34
30	12/07/2021	65.36	36.45	20.58	39.46
31	15/07/2021	87.56	47.55	19.54	33.52
32	19/07/2021	70.47	34.74	16.29	43.56
33	22/07/2021	90.42	50.63	14.54	25.68
34	26/07/2021	83.58	46.51	17.62	34.52
35	29/07/2021	68.35	35.41	21.29	30.67
36	02/08/2021	87.38	45.68	24.35	42.61
37	05/08/2021	76.54	38.32	19.60	36.51
38	09/08/2021	92.52	39.57	12.50	26.46
39	12/08/2021	69.38	34.32	21.39	34.27
40	16/08/2021	88.25	46.22	23.45	35.32
41	19/08/2021	73.61	37.57	13.68	28.32
42	23/08/2021	80.24	42.31	15.37	41.53
43	26/08/2021	67.87	36.57	20.28	30.43
44	30/08/2021	94.63	51.55	17.35	38.42
45	02/09/2021	80.37	43.43	14.68	31.55
46	06/09/2021	90.36	50.26	16.36	34.31
47	09/09/2021	82.34	40.23	21.27	40.22
48	13/09/2021	68.42	26.50	18.35	33.55
49	16/09/2021	73.41	42.31	26.28	37.56
50	20/09/2021	81.25	45.35	15.66	38.41
51	23/09/2021	64.58	31.54	19.39	35.64
52	27/09/2021	70.58	44.10	23.66	39.54
53	30/09/2021	83.62	47.60	12.76	32.54



H. T. Shah
Lab Manager

Dr. Arun Bajpai
Lab Manager (Q)



AMBIENT AIR QUALITY ANALYSIS REPORT OBSERVATIONS

Ambient Air Quality Monitoring Sample Analysis									
Sr.No.	Month	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)		Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)		Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)		Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)	
		Max	Min	Max	Min	Max	Min	Max	Min
L.C. Gate No.2									
1	April-21	71.54	49.54	36.40	21.29	16.22	6.29	32.69	14.25
2	May-21	81.52	53.47	44.53	24.54	16.40	7.61	29.42	17.82
3	June-21	75.24	53.33	35.64	23.58	15.25	6.54	30.27	15.32
4	July-21	74.33	44.62	41.53	21.54	18.40	7.56	30.27	18.68
5	August-21	74.64	50.37	36.56	22.62	16.44	6.58	36.56	22.64
6	September-21	69.33	46.36	36.40	15.36	15.31	6.45	28.42	14.36
Starting Of Pile Approach (Near SS2 Building)									
1	April-21	85.63	66.97	45.31	33.49	22.46	12.71	39.21	23.48
2	May-21	86.34	69.42	52.68	32.29	22.56	10.50	37.62	25.56
3	June-21	82.65	67.52	48.56	28.67	22.57	13.68	36.42	26.83
4	July-21	88.35	59.46	51.26	28.46	23.48	13.58	39.25	26.54
5	August-21	87.63	67.62	46.56	34.58	22.27	13.23	41.24	30.36
6	September-21	84.34	56.84	47.52	22.26	23.50	12.54	35.35	24.64
South West Corner Of Back Up Area									
1	April-21	75.46	55.61	42.48	22.52	18.60	9.22	35.31	15.60
2	May-21	76.26	52.38	37.50	22.52	18.26	6.52	29.53	16.23
3	June-21	70.24	48.68	37.50	20.51	14.26	6.38	26.36	14.26
4	July-21	80.32	49.52	43.53	21.85	14.25	6.57	33.77	15.25
5	August-21	79.55	53.54	39.39	25.32	17.61	6.25	27.51	17.64
6	September-21	74.52	50.36	39.47	19.42	20.24	6.51	31.22	17.36
North East Corner Of Back Up Area									
1	April-21	93.46	76.52	52.63	30.58	25.62	13.19	42.33	28.38
2	May-21	94.25	68.55	53.42	31.24	25.24	12.69	42.46	26.24
3	June-21	93.44	59.62	51.55	29.46	25.57	16.56	40.21	28.55
4	July-21	94.54	65.36	53.50	34.74	25.40	14.54	43.56	25.68
5	August-21	94.63	67.87	51.55	34.32	24.35	12.50	42.61	26.46
6	September-21	90.36	64.58	50.26	26.50	26.28	12.76	40.22	31.55



H. T. Shah
Lab Manager

Dr. Arun Bajpai
Lab Manager (Q)



RESULTS OF NOISE LEVEL MONITORING

Sampling Date	: As Per Table
Test Method	: IS 9876/IS 9989
Sampling Location	: As Per Table
Sampling By	: Pollucon Laboratories Pvt. Ltd.
Protocol (purpose)	: Environmental Monitoring

TABLE NO. 5 RESULTS OF DAY TIME NOISE LEVEL MONITORING [APRIL 2021 TO SEPTEMBER 2021]

Sr. No.	Name of Location	Noise Level Day Time dB(A)Leq*							
		LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back up Area	
	Month	Max	Min	Max	Min	Max	Min	Max	Min
1.	April-21	63.2	52.8	65.6	56.3	64.8	56.7	61.5	53.8
2.	May-21	73.1	60.5	74.4	61.2	74.5	60.3	72.4	59.5
3.	June-21	71.4	60.2	70.6	58.6	69.1	59.8	67.7	58.2
4.	July-21	71.0	58.4	68.4	57.1	69.8	60.1	67.4	58.2
5.	August-21	70.4	55.7	67.6	55.4	70.9	62.4	64.5	59.4
6.	September-21	70.2	56.7	70.8	53.7	71.6	57.6	66.9	56.9

TABLE NO. 6 RESULTS OF NIGHT TIME NOISE LEVEL MONITORING [APRIL 2021 TO SEPTEMBER 2021]

Sr. No.	Name of Location	Noise Level Night Time dB(A)Leq*							
		LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back up Area	
	Month	Max	Min	Max	Min	Max	Min	Max	Min
1.	April-21	60.2	50.5	62.3	55.2	62.5	54.9	60.1	52.3
2.	May-21	69.7	59.9	69.9	61.1	69.8	57.2	66.9	59.4
3.	June-21	69.5	51.1	60.8	49.7	58.4	47.5	65.1	46.9
4.	July-21	68.4	50.2	66.6	48.6	58.9	47.6	63.1	45.0
5.	August-21	65.6	52.4	64.2	51.6	57.6	51.5	66.0	44.6
6.	September-21	60.1	47.6	62.4	53.6	62.8	44.6	57.7	51.5

AMBIENT AIR QUALITY STANDARDS FOR NOISE SPECIFIED BY CPCB

Area Code	Category of Area/Zone	Limits in dB(A) Leq#	
		Day time	Night time
A	Industrial area	75	70
Notes:			
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.			
2. Night time shall mean from 10.00 p.m. to 06.00 a.m.			
#dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing			

H. T. Shah
Lab Manager

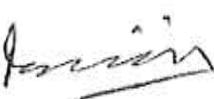


Dr. Arun Bajpai
Lab-Manager (Q)

AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATIONS

Sr. No	Name of Location	GPS Coordinate
1.	LC Gate No.2	N 22°58' 14.29'E 70°05 51.07'
2.	Starting Of Pile Approach	N 22°54' 27.47' E 70°06 15.63'
3.	South West Corner at Pump House	N 22°55' 22.98' E 70°06 7.37'
4.	North East Corner Of Back Up Area	N 22°55' 53.09 E 70°06 27.17'

FIGURE NO. 1 GOOGLE EARTH IMAGE OF AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATION

H. T. Shah
Lab Manager




Dr. Arun Bajpai
Lab Manager (Q)

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TABLE NO.12 RESULTS OF STACK MONITORING

PERMISSIBLE LIMIT FOR STACK MONITORING

SR. NO.	TEST PARAMETER	UNIT	GPCB LIMIT**	TEST/SAMPLING METHOD
1	Particulate Matter	mg/Nm ³	150	IS:11255 (Part-1)
2	Sulfur Dioxide as SO ₂	ppm	100	IS:11255 (Part-2)
3	Oxides of Nitrogen as NO _x	ppm	50	IS: 11255 (Part-7)

**Details provided by customer.

RESULTS OF STACK MONITORING

Date of Monitoring			17/07/2021		
Sampling Location			SS-1 DG Set -1 (125 KVA)	SS-2 DG Set -2 (125 KVA)	SS-3 DG Set -3 (125 KVA)
SR. NO.	TEST PARAMETER	UNIT	July-21		
1	Particulate Matter	mg/Nm ³	20.86	17.51	18.61
2	Sulfur Dioxide as SO ₂	ppm	8.62	6.34	5.36
3	Oxides of Nitrogen as NO _x	ppm	33.39	28.43	26.37
4	Noise Level Monitoring				
4.1	Near DG Set	dB(A)	70.5	72.1	71.7

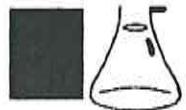


H.T.Shah

H. T. Shah
Lab Manager

Dr. Arun Bajpai

Dr. Arun Bajpai
Lab Manager (Q)



POLLOCON LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

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"ENVIRONMENTAL MONITORING REPORT"

For

**ADANI KANDLA BULK TERMINAL PRIVATE
LIMITED. KANDLA, KUTCH.**

OCTOBER 2021 TO MARCH 2022



for me

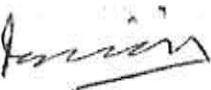
H. T. Shah
Lab Manager

PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY, OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART, NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007. PHONE: (0261) 2631750, 2635751

[Signature]
Dr. ArunBajpai
Lab Manager (Q)

METHODS AND EQUIPMENTS USED FOR SAMPLING AND ANALYSIS

SR. NO.	Monitoring Details	Equipments Used	Sampling and Analysis Method
1	Ambient Air Quality Monitoring	RDS,FDS, Gaseous Attachment with Impinger	CPCB Guideline/IS:5182
2	Noise Monitoring	NoiseMeter	IS 9876/IS 9989
3	Stack Monitoring	Stack Monitoring Sampler/Kit	IS:11255/NDIR Gas Analyzer

H. T. Shah
Lab Manager



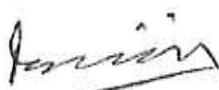
Dr. Arun Bajpai
Lab Manager (Q)

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NATIONAL AMBIENT AIR QUALITY STANDARDS DATED 16TH NOV.2009, CPCB NEW DELHI.

SR. NO.	TEST PARAMETER	UNIT	Concentration in ambient air	Method Of Measurement
1	Particulate Matter (PM ₁₀)	µg/m ³	100	IS:5182(Part 23)
2	Particulate Matter (PM _{2.5})	µg/m ³	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
3	Sulphur Dioxide (SO ₂)	µg/m ³	80	IS:5182(Part 2)
4	Oxides of Nitrogen (NO ₂)	µg/m ³	80	IS:5182(Part6)

NS#: Not Specified, ** National Ambient Air Quality Standards Dated: 18/11/2009 as per Central Pollution Control Board, New Delhi.

 H. T. Shah
 Lab Manager


 Dr. Arun Bajpai
 Lab Manager (Q)

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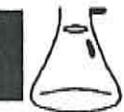
TABLE NO. 1 RESULTS OF AAQM FOR LC GATE NO.2 [OCTOBER 2021 TO MARCH 2022]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	04/10/2021	71.28	33.43	11.57	24.35
2	07/10/2021	50.31	38.44	9.59	16.57
3	11/10/2021	58.14	28.92	14.54	19.50
4	14/10/2021	60.35	21.62	16.77	25.39
5	18/10/2021	44.36	18.61	8.69	18.62
6	21/10/2021	67.54	27.55	17.29	28.37
7	25/10/2021	59.36	23.33	10.36	23.53
8	28/10/2021	72.42	41.82	15.31	32.43
9	01/11/2021	58.18	22.66	16.35	26.67
10	04/11/2021	64.81	39.73	13.85	22.37
11	08/11/2021	70.37	35.39	6.38	17.17
12	11/11/2021	55.62	27.67	8.50	24.37
13	15/11/2021	65.21	30.38	14.72	14.74
14	18/11/2021	53.32	25.71	12.38	23.45
15	22/11/2021	62.36	28.21	7.49	15.62
16	25/11/2021	51.52	29.47	9.35	21.24
17	29/11/2021	60.36	23.46	11.51	18.61
18	02/12/2021	51.62	20.41	8.63	19.48
19	06/12/2021	68.58	35.60	16.35	27.59
20	09/12/2021	75.64	42.66	12.68	22.24
21	13/12/2021	65.98	31.60	9.50	18.87
22	16/12/2021	55.30	37.52	7.47	13.77
23	20/12/2021	66.53	33.72	14.49	26.42
24	23/12/2021	69.36	36.44	11.54	17.67
25	27/12/2021	52.42	26.63	13.51	24.53
26	30/12/2021	74.62	30.43	10.69	16.58
27	03/01/2022	66.42	34.31	11.72	21.69
28	06/01/2022	71.52	28.47	9.43	26.56
29	10/01/2022	64.34	37.48	7.66	15.46
30	13/01/2022	51.53	22.45	15.17	19.57
31	17/01/2022	60.31	25.42	10.20	23.43
32	20/01/2022	65.42	31.55	6.54	17.88
33	24/01/2022	74.55	38.44	8.41	20.56
34	27/01/2022	62.48	24.33	12.29	12.84
35	31/01/2022	77.57	40.28	14.22	32.53
36	03/02/2022	64.61	28.47	13.46	22.11
37	07/02/2022	50.22	22.41	7.50	17.65
38	10/02/2022	69.51	35.48	10.59	26.37
39	14/02/2022	63.48	32.26	12.85	23.45
40	17/02/2022	71.68	36.27	6.81	16.53
41	21/02/2022	62.65	26.42	11.24	25.32
42	24/02/2022	72.53	40.28	9.64	29.23
43	28/02/2022	66.75	34.56	14.50	20.52
44	03/03/2022	79.42	44.53	17.65	26.45
45	07/03/2022	61.57	30.55	14.83	19.47
46	10/03/2022	67.54	26.75	11.64	22.88
47	14/03/2022	58.33	33.43	9.40	16.34
48	17/03/2022	65.51	38.90	12.67	21.56
49	21/03/2022	56.78	25.38	7.91	24.24
50	24/03/2022	66.37	34.60	10.75	18.38
51	28/03/2022	72.44	31.33	13.54	30.40



H. T. Shah
Lab Manager

Dr. ArunBajpai
Lab Manager (Q)



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TABLE NO. 2 RESULTS OF AAQM FOR STARTING OF PILE APPROACH OCTOBER 2021 TO MARCH 2022|

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	04/10/2021	84.36	40.36	20.69	35.40
2	07/10/2021	79.62	45.64	12.94	24.55
3	11/10/2021	74.58	37.57	22.83	32.69
4	14/10/2021	67.36	28.42	18.51	34.27
5	18/10/2021	58.63	26.50	14.80	27.05
6	21/10/2021	83.42	43.56	19.54	31.56
7	25/10/2021	71.56	35.41	16.55	36.44
8	28/10/2021	85.60	44.56	17.62	37.52
9	01/11/2021	67.33	32.62	23.44	37.76
10	04/11/2021	78.62	46.39	18.42	30.63
11	08/11/2021	85.21	49.56	21.34	35.15
12	11/11/2021	70.65	40.57	15.61	28.13
13	15/11/2021	75.94	42.52	12.46	25.65
14	18/11/2021	86.35	48.60	17.51	27.64
15	22/11/2021	68.42	30.42	13.59	32.51
16	25/11/2021	76.52	43.65	20.46	29.42
17	29/11/2021	71.52	33.45	16.81	34.05
18	02/12/2021	64.72	31.54	15.61	25.33
19	06/12/2021	82.12	43.61	21.67	31.50
20	09/12/2021	89.71	48.68	18.36	34.65
21	13/12/2021	78.64	41.53	16.85	21.65
22	16/12/2021	67.30	27.67	13.62	30.63
23	20/12/2021	85.45	44.31	23.42	35.34
24	23/12/2021	74.85	40.36	14.86	24.36
25	27/12/2021	62.61	32.45	22.34	27.41
26	30/12/2021	81.58	37.53	17.67	32.74
27	03/01/2022	84.32	48.39	14.35	31.53
28	06/01/2022	76.52	39.44	20.28	35.53
29	10/01/2022	86.57	45.48	11.37	24.23
30	13/01/2022	73.55	35.45	18.43	32.46
31	17/01/2022	89.41	49.31	9.62	26.43
32	20/01/2022	71.66	34.53	13.58	29.74
33	24/01/2022	85.62	47.56	21.22	33.43
34	27/01/2022	78.68	33.54	16.32	30.41
35	31/01/2022	87.63	43.44	19.85	25.42
36	03/02/2022	78.98	39.44	21.55	30.86
37	07/02/2022	69.45	32.66	18.71	22.42
38	10/02/2022	82.62	44.56	16.47	29.46
39	14/02/2022	68.45	42.36	14.62	26.22
40	17/02/2022	83.58	46.23	12.44	33.63
41	21/02/2022	76.31	38.53	15.33	21.57
42	24/02/2022	87.53	48.27	19.77	34.24
43	28/02/2022	79.65	41.57	17.25	25.25
44	03/03/2022	83.48	38.65	22.68	32.47
45	07/03/2022	68.14	34.53	12.36	26.93
46	10/03/2022	78.41	37.56	19.20	31.69
47	14/03/2022	82.61	44.56	17.32	23.84
48	17/03/2022	70.96	41.27	20.24	27.65
49	21/03/2022	66.53	30.23	16.47	30.97
50	24/03/2022	72.55	33.65	13.86	24.33
51	28/03/2022	80.53	46.35	15.14	28.57



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TABLE NO. 3 RESULTS OF AAQM FOR SOUTH WEST CORNER AT PUMP HOUSE [OCTOBER 2021 TO MARCH 2022]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	04/10/2021	76.34	36.54	17.16	29.59
2	07/10/2021	56.94	30.34	8.52	19.33
3	11/10/2021	65.67	33.48	12.15	22.72
4	14/10/2021	55.62	24.74	9.31	18.52
5	18/10/2021	49.30	21.60	13.48	24.65
6	21/10/2021	72.68	31.56	16.37	20.85
7	25/10/2021	54.62	29.30	14.34	27.54
8	28/10/2021	67.24	37.54	10.66	23.41
9	01/11/2021	52.63	26.37	18.62	22.41
10	04/11/2021	72.37	43.78	16.41	15.11
11	08/11/2021	80.66	31.56	13.58	25.39
12	11/11/2021	65.68	37.50	11.54	23.68
13	15/11/2021	70.51	34.57	10.57	20.34
14	18/11/2021	68.62	29.42	15.35	16.43
15	22/11/2021	56.36	24.36	12.50	28.41
16	25/11/2021	69.62	40.64	14.83	24.37
17	29/11/2021	64.24	27.54	9.51	26.41
18	02/12/2021	57.84	25.41	12.10	23.48
19	06/12/2021	74.27	39.47	19.49	18.66
20	09/12/2021	66.34	26.83	16.33	28.45
21	13/12/2021	75.34	38.67	13.45	25.42
22	16/12/2021	60.33	33.53	11.62	22.47
23	20/12/2021	73.51	28.42	18.51	30.29
24	23/12/2021	63.42	32.44	9.50	19.64
25	27/12/2021	58.67	23.65	17.40	21.55
26	30/12/2021	77.62	35.83	14.21	27.49
27	03/01/2022	73.63	40.35	8.62	24.97
28	06/01/2022	68.37	35.45	17.25	31.27
29	10/01/2022	59.36	32.86	9.58	20.63
30	13/01/2022	66.28	25.82	12.68	29.57
31	17/01/2022	78.48	36.25	14.56	19.36
32	20/01/2022	58.43	26.24	10.65	21.56
33	24/01/2022	64.53	34.20	16.49	27.56
34	27/01/2022	71.55	38.46	13.83	26.67
35	31/01/2022	67.32	37.54	7.51	30.25
36	03/02/2022	72.38	36.58	16.47	25.63
37	07/02/2022	57.64	25.66	9.46	15.35
38	10/02/2022	62.46	31.56	12.48	22.30
39	14/02/2022	56.54	27.54	10.23	17.51
40	17/02/2022	65.64	32.44	8.47	20.22
41	21/02/2022	71.52	35.66	13.57	19.63
42	24/02/2022	81.56	43.53	15.63	24.66
43	28/02/2022	73.51	46.21	19.24	29.52
44	03/03/2022	62.87	32.34	13.34	19.50
45	07/03/2022	56.31	26.40	8.13	22.53
46	10/03/2022	72.11	30.43	17.49	26.52
47	14/03/2022	64.81	36.49	14.69	18.47
48	17/03/2022	58.66	33.46	18.59	14.38
49	21/03/2022	48.66	21.67	12.52	27.59
50	24/03/2022	52.18	25.41	11.31	20.23
51	28/03/2022	65.47	39.73	9.75	23.60



H. T. Shah
Lab Manager



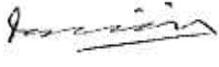

Dr. Arun Bajpai
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TABLE NO. 4 RESULTS OF AAQM FOR NORTH EAST CORNER OF BACK UP AREA / NORTH EAST CORNER AT RAILWAY BUILDING* [OCTOBER 2021 TO MARCH 2022]

Sr No.	Date of Sampling	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)	Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)	Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)	Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)
1	04/10/2021	90.34	53.63	23.44	39.47
2	07/10/2021	85.41	49.55	15.97	32.58
3	11/10/2021	80.36	44.39	19.27	34.66
4	14/10/2021	73.65	33.41	20.37	31.25
5	18/10/2021	66.60	29.41	17.55	30.83
6	21/10/2021	89.42	47.43	22.66	35.66
7	25/10/2021	82.32	38.57	18.41	38.46
8	28/10/2021	93.42	48.88	24.28	41.21
9	01/11/2021	74.34	42.27	25.38	40.35
10	04/11/2021	88.38	48.64	20.39	33.25
11	08/11/2021	92.32	53.54	17.61	28.94
12	11/11/2021	77.64	50.34	19.50	32.42
13	15/11/2021	83.55	46.43	21.50	27.82
14	18/11/2021	91.34	43.43	24.52	31.52
15	22/11/2021	72.62	34.61	15.43	26.76
16	25/11/2021	79.62	49.51	22.11	34.75
17	29/11/2021	76.84	36.69	14.32	36.15
18	02/12/2021	70.35	41.52	18.62	30.60
19	06/12/2021	89.68	46.93	23.54	37.22
20	09/12/2021	94.31	52.63	20.32	31.27
21	13/12/2021	87.25	47.51	24.54	27.33
22	16/12/2021	79.61	40.23	15.40	35.44
23	20/12/2021	93.25	48.39	21.54	39.53
24	23/12/2021	80.36	45.81	16.88	22.64
25	27/12/2021	68.32	35.41	25.32	36.22
26	30/12/2021	88.62	49.59	19.64	40.29
27	03/01/2022	89.66	52.84	19.63	28.32
28	06/01/2022	83.46	44.81	22.40	39.23
29	10/01/2022	91.68	50.26	14.20	32.65
30	13/01/2022	78.56	40.23	20.29	35.36
31	17/01/2022	94.36	53.42	17.50	31.62
32	20/01/2022	80.65	42.48	15.34	33.57
33	24/01/2022	90.35	51.26	23.58	40.23
34	27/01/2022	85.48	45.22	18.52	37.62
35	31/01/2022	93.54	48.64	21.57	34.57
36	03/02/2022	82.82	44.56	24.53	36.87
37	07/02/2022	77.68	35.82	21.68	27.57
38	10/02/2022	88.34	49.59	19.56	33.56
39	14/02/2022	76.54	46.51	16.83	30.23
40	17/02/2022	90.24	52.42	14.24	37.52
41	21/02/2022	81.84	43.56	18.37	32.43
42	24/02/2022	94.58	53.46	22.71	38.43
43	28/02/2022	89.52	50.30	20.83	31.57
44	03/03/2022	90.26	51.56	25.71	29.51
45	07/03/2022	78.67	38.45	15.75	24.54
46	10/03/2022	83.52	42.88	21.59	34.64
47	14/03/2022	88.36	48.54	18.49	26.36
48	17/03/2022	79.84	49.54	22.42	33.41
49	21/03/2022	73.51	35.48	14.27	36.51
50	24/03/2022	80.28	37.59	19.56	28.48
51	28/03/2022	86.35	53.46	17.50	32.26

*Note: AAQM location has changed from Nov-21 old location name was north east corner of back up area which is monitored from 04/10/2021 to 28/10/2021 and new location name is north east corner at railway building which is monitored from 01/11/2021 to 28/03/2022.

H. T. Shah
Lab Manager



Dr. Arun Bajpai
Lab Manager (Q)

AMBIENT AIR QUALITY ANALYSIS REPORT OBSERVATIONS

Ambient Air Quality Monitoring Sample Analysis									
Sr.No.	Month	Particulate Matter (PM ₁₀) ($\mu\text{g}/\text{m}^3$)		Particulate Matter (PM _{2.5}) ($\mu\text{g}/\text{m}^3$)		Sulphur Dioxide (SO ₂) ($\mu\text{g}/\text{m}^3$)		Oxides of Nitrogen (NO ₂) ($\mu\text{g}/\text{m}^3$)	
		Max	Min	Max	Min	Max	Min	Max	Min
L.C. Gate No.2									
1	October-21	72.42	44.36	41.82	18.61	17.29	8.69	32.43	16.57
2	November-21	70.37	51.52	39.73	22.66	16.35	6.38	26.67	14.74
3	December-21	75.64	51.62	42.66	20.41	16.35	7.47	27.59	13.77
4	January-22	77.57	51.53	40.28	22.45	15.17	6.54	32.53	12.84
5	February-22	72.53	50.22	40.28	22.41	14.50	6.81	29.23	16.53
6	March-22	79.42	56.78	44.53	25.38	17.65	7.91	30.40	16.34
Starting Of Pile Approach (Near SS2 Building)									
1	October-21	85.60	58.63	45.64	26.50	22.83	12.94	37.52	24.55
2	November-21	86.35	67.33	49.56	30.42	23.44	12.46	37.76	25.65
3	December-21	89.71	62.61	48.68	27.67	23.42	13.62	35.34	21.65
4	January-22	89.41	71.66	49.31	33.54	21.22	9.62	35.53	24.23
5	February-22	87.53	68.45	48.27	32.66	21.55	12.44	34.24	21.57
6	March-22	83.48	63.54	46.35	30.23	22.68	12.36	32.47	23.84
South West Corner at Pump House									
1	October-21	76.34	49.30	37.54	21.60	17.16	8.52	29.59	18.52
2	November-21	80.66	52.63	43.78	24.36	18.62	9.51	28.41	15.11
3	December-21	77.62	57.84	39.47	23.65	19.49	9.50	30.29	18.66
4	January-22	78.48	58.43	40.35	25.82	17.25	7.51	31.27	19.36
5	February-22	81.56	56.54	46.21	25.66	19.24	8.47	29.52	15.35
6	March-22	72.11	48.66	39.73	21.67	18.59	6.48	27.59	14.38
North East Corner of Back Up Area / North East Corner at Railway Building*									
1	October-21	93.42	66.60	53.63	29.41	24.28	15.97	41.21	30.83
2	November-21	92.32	72.62	53.54	34.61	25.38	14.32	40.35	26.76
3	December-21	94.31	68.32	52.63	35.41	25.32	15.40	40.29	22.64
4	January-22	94.36	78.56	53.42	40.23	23.58	14.20	40.23	28.32
5	February-22	94.58	76.54	53.46	35.82	24.53	14.24	38.43	27.57
6	March-22	90.26	73.51	53.46	35.48	25.71	14.27	37.53	24.54

*Note: AAQM location has changed from Nov-21 old location name was north east corner of back up area which is monitored from 04/10/2021 to 28/10/2021 and new location name is north east corner at railway building which is monitored from 01/11/2021 to 28/03/2022.



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RESULTS OF NOISE LEVEL MONITORING

Sampling Date	: As Per Table
Test Method	: IS 9876/IS 9989
Sampling Location	: As Per Table
Sampling By	: Pollucon Laboratories Pvt. Ltd.
Protocol (purpose)	: Environmental Monitoring

TABLE NO. 5 RESULTS OF DAY TIME NOISE LEVEL MONITORING [OCTOBER 2021 TO MARCH 2022]

Noise Level Day Time dB(A)Leq*									
Sr. No.	Name of Location	LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back Up Area Or North East Corner at Railway Building	
		Month	Max	Min	Max	Min	Max	Min	Max
1.	October-21		68.1	59.8	65.8	55.6	69.7	59.8	67.1
2.	November-21		69.4	58.9	70.8	55.2	71.5	59.4	68.9
3.	December-21		72.0	55.7	70.2	57.0	70.9	59.1	69.8
4.	January-22		71.5	58.4	69.1	53.2	71.5	57.4	67.8
5.	February-22		72.4	55.8	70.7	55.9	72.9	60.9	69.1
6.	March-22		71.6	54.8	70.6	56.8	71.6	54.2	72.5

Note: Noise level monitoring location has changed from Nov-21 old location name was north east corner of back up area which is monitored in Oct-21 and new location name is north east corner at railway building which is monitored from Nov-21 to Mar-22.

TABLE NO. 6 RESULTS OF NIGHT TIME NOISE LEVEL MONITORING [OCTOBER 2021 TO MARCH 2022]

Noise Level Night Time dB(A)Leq*									
Sr. No.	Name of Location	LC Gate No.2		Starting Of Pile Approach		South West Corner at Pump House		North East Corner of Back Up Area / North East Corner at Railway Building*	
		Month	Max	Min	Max	Min	Max	Min	Max
1.	Octoher-21		61.6	49.6	63.4	54.6	60.5	50.8	65.0
2.	November-21		60.3	51.6	62.5	55.3	61.5	51.8	66.1
3.	December-21		59.3	52.1	64.9	57.6	61.8	52.7	58.5
4.	January-22		60.6	52.1	62.9	52.5	62.6	52.3	63.4
5.	February-22		60.5	54.8	64.5	53.8	62.7	53.4	64.7
6.	March-22		61.4	50.8	62.5	52.3	64.3	51.4	61.2

*Note: Noise level monitoring location has changed from Nov-21 old location name was north east corner of back up area which is monitored in Oct-21 and new location name is north east corner at railway building which is monitored from Nov-21 to Mar-22.

AMBIENT AIR QUALITY STANDARDS FOR NOISE SPECIFIED BY CPCB

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day time	Night time
A	Industrial area	75	70
Notes:			
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.			
2. Night time shall mean from 10.00 p.m. to 06.00 a.m.			
#dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing			



H. T. Shah
Lab Manager


Dr. Arun Bajpai
Lab Manager (Q)

AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATIONS

Sr. No	Name of Location	GPS Coordinate
1.	LC Gate No.2	N 22° 58' 14.29" E 70° 05' 51.07"
2.	Starting Of Pile Approach	N 22° 54' 27.47" E 70° 06 15.63"
3.	South West Corner at Pump House	N 22° 55' 22.98" E 70° 06' 7.37"
4.	North East Corner Of Back Up Area / North East Corner at Railway Building	N 22° 55' 53.09" E 70° 06' 27.17" / N 23° 0' 48.34" E 70° 12' 30.47"

FIGURE NO. 1 GOOGLE EARTH IMAGE OF AMBIENT AIR QUALITY MONITORING & NOISE QUALITY MONITORING LOCATION



H. T. Shah
Lab Manager


Dr. Arun Bajpai
Lab Manager (Q)

Rec. Enrised by MoEF New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

TABLE NO.12 RESULTS OF STACK MONITORING

PERMISSIBLE LIMIT FOR STACK MONITORING

SR. NO.	TEST PARAMETER	UNIT	GPCB LIMIT**	TEST/SAMPLING METHOD
1	Particulate Matter	mg/Nm ³	150	IS:11255 (Part-1)
2	Sulfur Dioxide as SO ₂	ppm	100	IS:11255 (Part-2)
3	Oxides of Nitrogen as NO _x	ppm	50	IS: 11255 (Part-7)

**Details provided by customer.

RESULTS OF STACK MONITORING

Date of Monitoring			December-21		
Sampling Location			SS-1 DG Set -1 (125 KVA)	SS-2 DG Set -2 (125 KVA)	SS-3 DG Set -3 (125 KVA)
SR. NO.	TEST PARAMETER	UNIT	29/12/2021		
1	Particulate Matter	mg/Nm ³	20.85	17.51	18.61
2	Sulfur Dioxide as SO ₂	ppm	8.79	6.58	5.08
3	Oxides of Nitrogen as NO _x	ppm	33.44	28.4	26.34
4	Noise Level Monitoring				
4.1	Near DG Set	dB(A)	71.2	73.4	70.7



Jasmin

H. T. Shah
Lab Manager

Arun Bajpai
Dr. Arun Bajpai
Lab Manager (Q)

Annexure 2: Expenditure Details on Environmental Safeguards during FY 2021- 22

Sr. no.	Activity	Cost incurred (INR in Lakh)
1	Environmental Monitoring	8.58
2	Environment Days Celebration	0.76
3	Greenbelt development [Area: 15.78 Hectare]	39.06
4	Treatment and Disposal of Bio-Medical Waste	1.00
5	Hazardous /Non Hazardous waste management & Disposal	11.62
6	O&M Of Sewage Treatment plant and OWC Plant	7.72
7	Firefighting Equipment.	236.62
8	Dust Suppression.	
9	Maintenance of conveyor belt.	104.77
Total		410.13

Environment Statement for 2021-22 for M/s Adani Kandla Bulk Terminal Pvt Ltd

Annexure – 3 Green zone developments details

CURRENT GREEN ZONE DETAILS OF TUNA PORT (AKBTPL) UP TO Mar'2022.						
Sr. No.	Location	Area (Ha)	Tree (No.)	Shrubs (SQM)	Green Carpet (SQM)	Palm (No.)
1	Staff Canteen, POB & SS1 Building	2.25	4491	1975	8569	307
2	Green Belt area & Pump House	6.34	15779	250	0	75
3	Approach Road Zero Point to Main Gate	0.40	0	0	0	1150
4	SS2 Building & Jetty Road Area.	3.45	8002	1230	0	0
5	Internal Road & Railway Building	3.34	13180	150	60	250
6	Near WB 04	0.113	500	0	0	0
	Total	15.89	41952	3605	8629	1782