

CIN : U74999TN2008PTC067568

## TEST REPORT

Report Number and date	CTL/CH/1932/2022-23 & 30.09.2022		
Sample Number	1932/22-23		
Customer Name & Address	M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description	Ambient Air Quality		
Sampling Location	NEAR FIRE STATION AREA		
Sampling Method	IS 5182 (Part V) and (Part XIV)	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Sampling Date & Time	24.09.2022 & 09.00 to 18.00		
Date of Receipt	25.09.2022	Sample Condition	Good
Analysis Starting Date	26.09.2022	Analysis Completion Date	30.09.2022

### ENVIRONMENTAL CONDITION:

RELATIVE HUMIDITY	57%
AMBIENT TEMPERATURE	34°C
WIND SPEED	5.7 Km/hr
WIND DIRECTION	SW
WEATHER CONDITION	Clear Sky

SL.NO	PARAMETERS	METHODS	UNITS	RESULTS	NAAQS*
1	PARTICULATE MATTER (PM <sub>2.5</sub> )	CTL/SOP/AIR/03 - 2016	µg/m <sup>3</sup>	21.1	60
2	PARTICULATE MATTER (PM <sub>10</sub> )	IS 5182 Part 23 - 2006	µg/m <sup>3</sup>	49.0	100
3	SULPHUR DIOXIDE (SO <sub>2</sub> )	IS 5182 Part 2 - 2001	µg/m <sup>3</sup>	9.5	80
4	OXIDES OF NITROGEN (NO <sub>x</sub> )	IS 5182 Part 6 - 2006	µg/m <sup>3</sup>	18.9	80
5	OZONE (O <sub>3</sub> )	CTL/SOP/AIR/08 - 2016	µg/m <sup>3</sup>	23.2	180
6	LEAD (Pb)	IS 5182 PART 22 - 2004	µg/m <sup>3</sup>	BDL(DL:0.1)	1
7	CARBON MONOXIDE (CO)	CTL/SOP/AIR/23 - 2016	mg/m <sup>3</sup>	BDL(DL:1.15)	4
8	AMMONIA (NH <sub>3</sub> )	CTL/SOP/AIR/07- 2016 (INDOPHENOL METHOD)	µg/m <sup>3</sup>	22.4	400
9	ARSENIC (As)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:1.0)	6
10	NICKEL (Ni)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:5.0)	20
11	BENZENE (C <sub>6</sub> H <sub>6</sub> )	IS 5182 PART 11 - 2006	µg/m <sup>3</sup>	BDL(DL:1.0)	5
12	BENZO(a)PYRENE	IS 5182 PART 12 - 2004	ng/m <sup>3</sup>	BDL(DL:0.5)	1

\*National Ambient Air Quality Standards - CPCB

BDL - Below Detection Limit(D.L - Detection Limit)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

The Report shall not be used to malign, defame and for any malicious purpose.  
The Report is meant only for sole use of the addressee to promote his/her own business.

Authorised Signatory

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Head - Environment Division  
(CHEMICAL)

CIN : U74999TN2008PTC067568

## TEST REPORT

Report Number and date	CTL/CH/1933/2022-23 & 30.09.2022		
Sample Number	1933/22-23		
Customer Name & Address	M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description	Ambient Air Quality		
Sampling Location	NEAR PRODUCED WATER TANK AREA		
Sampling Method	IS 5182 (Part V) and (Part XIV)	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Sampling Date & Time	24.09.2022 & 09.15 to 18.15		
Date of Receipt	25.09.2022	Sample Condition	Good
Analysis Starting Date	26.09.2022	Analysis Completion Date	30.09.2022

### ENVIRONMENTAL CONDITION:

RELATIVE HUMIDITY	57%
AMBIENT TEMPERATURE	34°C
WIND SPEED	5.7 Km/hr
WIND DIRECTION	SW
WEATHER CONDITION	Clear Sky

SL.NO	PARAMETERS	METHODS	UNITS	RESULTS	NAAQS*
1	PARTICULATE MATTER (PM <sub>2.5</sub> )	CTL/SOP/AIR/03 - 2016	µg/m <sup>3</sup>	16.5	60
2	PARTICULATE MATTER (PM <sub>10</sub> )	IS 5182 Part 23 - 2006	µg/m <sup>3</sup>	37.0	100
3	SULPHUR DIOXIDE (SO <sub>2</sub> )	IS 5182 Part 2 - 2001	µg/m <sup>3</sup>	BDL(DL:3.0)	80
4	OXIDES OF NITROGEN (NO <sub>x</sub> )	IS 5182 Part 6 - 2006	µg/m <sup>3</sup>	9.8	80
5	OZONE (O <sub>3</sub> )	CTL/SOP/AIR/08 - 2016	µg/m <sup>3</sup>	18.8	180
6	LEAD (Pb)	IS 5182 PART 22 - 2004	µg/m <sup>3</sup>	BDL(DL:0.1)	1
7	CARBON MONOXIDE (CO)	CTL/SOP/AIR/23 - 2016	mg/m <sup>3</sup>	BDL(DL:1.15)	4
8	AMMONIA (NH <sub>3</sub> )	CTL/SOP/AIR/07- 2016 (INDOPHENOL METHOD)	µg/m <sup>3</sup>	12.8	400
9	ARSENIC (As)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:1.0)	6
10	NICKEL (Ni)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:5.0)	20
11	BENZENE (C <sub>6</sub> H <sub>6</sub> )	IS 5182 PART 11 - 2006	µg/m <sup>3</sup>	BDL(DL:1.0)	5
12	BENZO(a)PYRENE	IS 5182 PART 12 - 2004	ng/m <sup>3</sup>	BDL(DL:0.5)	1

\*National Ambient Air Quality Standards - CPCB

BDL - Below Detection Limit(D.L - Detection Limit)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

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Authorised Signatory

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Head - Environment Division  
(CHEMICAL)



CIN : U74999TN2008PTC067568

## TEST REPORT

<b>Report Number and date</b>	CTL/CH/1934/2022-23 & 30.09.2022		
<b>Sample Number</b>	1934/22-23		
<b>Customer Name &amp; Address</b>	M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist - 609 311.		
<b>SAMPLE DETAILS</b>			
<b>Sample Description</b>	Ambient Air Quality		
<b>Sampling Location</b>	NEAR SLUG CATCHER AREA		
<b>Sampling Method</b>	IS 5182 (Part V) and (Part XIV)	<b>Sampled By</b>	Chennai Testing Laboratory Pvt. Ltd.,
<b>Sampling Date &amp; Time</b>	21.09.2022 & 09.25 to 18.25		
<b>Date of Receipt</b>	25.09.2022	<b>Sample Condition</b>	Good
<b>Analysis Starting Date</b>	26.09.2022	<b>Analysis Completion Date</b>	30.09.2022

### ENVIRONMENTAL CONDITION:

RELATIVE HUMIDITY	57%
AMBIENT TEMPERATURE	34°C
WIND SPEED	5.7 Km/hr
WIND DIRECTION	SW
WEATHER CONDITION	Clear Sky

SL.NO	PARAMETERS	METHODS	UNITS	RESULTS	NAAQS*
1	PARTICULATE MATTER (PM <sub>2.5</sub> )	CTL/SOP/AIR/03 - 2016	µg/m <sup>3</sup>	17.2	60
2	PARTICULATE MATTER (PM <sub>10</sub> )	IS 5182 Part 23 - 2006	µg/m <sup>3</sup>	39.4	100
3	SULPHUR DIOXIDE (SO <sub>2</sub> )	IS 5182 Part 2 - 2001	µg/m <sup>3</sup>	3.2	80
4	OXIDES OF NITROGEN (NO <sub>x</sub> )	IS 5182 Part 6 - 2006	µg/m <sup>3</sup>	14	80
5	OZONE (O <sub>3</sub> )	CTL/SOP/AIR/08 - 2016	µg/m <sup>3</sup>	11	180
6	LEAD (Pb)	IS 5182 PART 22 - 2004	µg/m <sup>3</sup>	BDL(DL:0.1)	1
7	CARBON MONOXIDE (CO)	CTL/SOP/AIR/23 - 2016	mg/m <sup>3</sup>	BDL(DL:1.15)	4
8	AMMONIA (NH <sub>3</sub> )	CTL/SOP/AIR/07- 2016 (INDOPHENOL METHOD)	µg/m <sup>3</sup>	17.6	400
9	ARSENIC (As)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:1.0)	6
10	NICKEL (Ni)	CTL/SOP/AIR/06 - 2016	ng/m <sup>3</sup>	BDL(DL:5.0)	20
11	BENZENE (C <sub>6</sub> H <sub>6</sub> )	IS 5182 PART 11 - 2006	µg/m <sup>3</sup>	BDL(DL:1.0)	5
12	BENZO(a)PYRENE	IS 5182 PART 12 - 2004	ng/m <sup>3</sup>	BDL(DL:0.5)	1

\*National Ambient Air Quality Standards - CPCB

BDL - Below Detection Limit(D.L - Detection Limit)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

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Authorised Signatory

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Chennai - 600 032 | Tamil Nadu | India | Telefax : +91-44-22501757

**C. MANIKANDAN**  
Head - Environment Division  
(CHEMICAL)

**TEST REPORT**

Report Number and date	CTL/CH/1935/2022-23 & 30.09.2022		
Sample Number	1935/22-23		
Customer Name & Address	M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description	Stack		
Sampling Location	Stack attached with GG -380 KVA - B		
Sampling Method	IS 11255		
Sampling Date	24.09.2022	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Date of Receipt	25.09.2022	Sample Condition	Good
Analysis Starting Date	26.09.2022	Analysis Completion Date	30.09.2022

**PHYSICAL PARAMETERS:**

STACK HEIGHT (m)	30
STACK TEMPERATURE (K)	433.0
STACK VELOCITY (m/s)	14.0
STACK GAS FLOW RATE (Nm <sup>3</sup> /hr)	14504.1
DIAMETER OF STACK AT PORTHOLE (m)	0.73
*APCM STATUS AT THE TIME OF SAMPLING	Nil

SL.NO	PARAMETERS	METHOD	UNITS	RESULTS	TNPCB LIMITS
1	OXIDES OF NITROGEN NO <sub>x</sub> (as NO <sub>2</sub> )	IS 11255 PART 7 2005	mg/Nm <sup>3</sup>	202	**
2	SULPHUR DIOXIDE (SO <sub>2</sub> )	IS 11255 PART 2 1985	mg/Nm <sup>3</sup>	17	**
3	PARTICULATE MATTER(PM)	IS 11255 PART 1 1985	mg/Nm <sup>3</sup>	33.0	150
4	CARBON DIOXIDE (CO <sub>2</sub> )	CTL/SOP/STACK/010-2016 (Flue Gas Analyser)	%	11.7	**
5	CARBON MONOXIDE (CO)		%	0.4	**
6	OXYGEN (O <sub>2</sub> )		%	8.0	**

\*Air Pollution Control Measures

\*\*Depending on the local situation, state pollution control board will prescribe the standards.

BDL - Below Detection Limit(D.L - Detection Limit)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

Authorised Signatory

G. MANIKANDAN

Head of Testing Division

(CHEMICAL)

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CIN : U74999TN2008PTC067568

## TEST REPORT

Report Number and date	CTL/CH/1936/2022-23 & 30.09.2022		
Sample Number	1936/22-23		
Customer Name & Address	M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur,Near PPN Power Plant, Thirukadaiyur,Nagapattinam Dist - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description	Stack		
Sampling Location	Stack attached with HOT OIL HEATER		
Sampling Method	IS 11255		
Sampling Date	24.09.2022	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Date of Receipt	25.09.2022	Sample Condition	Good
Analysis Starting Date	26.09.2022	Analysis Completion Date	30.09.2022

### PHYSICAL PARAMETERS:

STACK HEIGHT (m)	20
STACK TEMPERATURE (K)	356.0
STACK VELOCITY (m/s)	10.0
STACK GAS FLOW RATE (Nm <sup>3</sup> /hr)	3783.3
DIAMETER OF STACK AT PORTHOLE (m)	0.4
*APCM STATUS AT THE TIME OF SAMPLING	Nil

SL.NO	PARAMETERS	METHOD	UNITS	RESULTS	TNPCB LIMITS
1	OXIDES OF NITROGEN NO <sub>x</sub> (as NO <sub>2</sub> )	IS 11255 PART 7 2005	mg/Nm <sup>3</sup>	58	**
2	SULPHUR DIOXIDE (SO <sub>2</sub> )	IS 11255 PART 2 1985	mg/Nm <sup>3</sup>	26	**
3	PARTICULATE MATTER(PM)	IS 11255 PART 1 1985	mg/Nm <sup>3</sup>	9.0	150
4	CARBON DIOXIDE (CO <sub>2</sub> )	CTL/SOP/STACK/010-2016 (Flue Gas Analyser)	%	0.9	**
5	CARBON MONOXIDE (CO)		mg/Nm <sup>3</sup>	BDL(DL:5.0)	**
6	OXYGEN (O <sub>2</sub> )		%	19.7	**

\*Air Pollution Control Measures

\*\*Depending on the local situation, state pollution control board will prescribe the standards.

BDL - Below Detection Limit(D.L - Detection Limit)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

Authorised Signatory

G. MANIKANDAN

Head, Environment Division  
(CHEMICAL)

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CIN : U74999TN2008PTC067568

**TEST REPORT**

<b>Report Number and date</b>		CTL/CH/1937/2022-23 & 30.09.2022			
<b>Sample Number</b>		1937/22-23			
<b>Customer Name &amp; Address</b>		M/s. HINDUSTAN OIL EXPLORATION COMPANY LIMITED(GAS PLANT), Pillaiperumalnallur,Near PPN Power Plant, Thirukadaiyur,Nagapattinam Dist - 609 311.			
<b>SAMPLE DETAILS</b>					
<b>Sample Description</b>		AMBIENT NOISE			
<b>Sampled By</b>		Chennai Testing Laboratory Pvt. Ltd.,			
<b>Sampling Date</b>		24.09.2022			
<b>Sampling Method</b>		IS 9989 & CTL/SOP/INS/035			
SL.NO	LOCATION	NOISE LEVEL dB (A)			LIMITS*
		Min	Max	Leq	Leq
1	NEAR ADMIN BUILDING	44.2	48.3	46.7	55 dB (A)
2	NEAR FIRE STATION	43.4	49.5	46.8	
3	NEAR STP AREA	50.4	53.4	51.9	
4	NEAR SLUG CATCHER AREA	44.3	47.4	46.0	

\* CPCB Limits (Day Time)

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

Authorized Signatory  
**G. MANIKANDAN**  
Head - Environment Division  
(CHEMICAL)

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CIN : U74999TN2008PTC067568

## TEST REPORT

Report Number and date	CTL/CH/1938/2022-23 & 30.09.2022		
Sample Number	1938/22-23		
Customer Name & Address	M/s.Hindustan Oil Exploration Company Limited, HOEC PY - 1 Plant (Gas Plant), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist. - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description By Customer	Raw Sewage Water		
Sampling Location	STP Plant		
Sampling Date	24.09.2022	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Quantity Received	2 Litres	Sampling Method	CTL/QSP/09
Date of Receipt	25.09.2022	Sample Condition	Good & Received in Plastic Container
Analysis Starting Date	25.09.2022	Analysis Completion Date	30.09.2022

### Test Results:

The above sample tested as received, and results are as follows:

S. NO	PARAMETERS	METHOD	UNITS	RESULTS
1	pH @ 25°C	4500-H+-B APHA 23 <sup>rd</sup> Edn. 2017	-	7.3
2	Total Suspended Solids (TSS)	2540-D- APHA 23 <sup>rd</sup> Edn. 2017	mg/l	192
3	Biochemical Oxygen Demand (BOD) 3 days @ 27°C	5210-B APHA 23 <sup>rd</sup> Edn. 2017	mg/l	170

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt Ltd

*A. Raj Kumar*  
Authorised Signatory  
**A. RAJKUMAR**  
Technical Manager  
(CHEMICAL)

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CIN : U74999TN2008PTC067568

## TEST REPORT

Report Number and date	CTL/CH/1939/2022-23 & 30.09.2022		
Sample Number	1939/22-23		
Customer Name & Address	M/s.Hindustan Oil Exploration Company Limited,		
	HOEC PY - 1 Plant (Gas Plant), Pillaiperumalnallur, Near PPN Power Plant, Thirukadaiyur, Nagapattinam Dist. - 609 311.		
<b>SAMPLE DETAILS</b>			
Sample Description By Customer	Treated Sewage Water		
Sampling Location	STP Plant		
Sampling Date	24.09.2022	Sampled By	Chennai Testing Laboratory Pvt. Ltd.,
Quantity Received	2 Litres	Sampling Method	CTL/QSP/09
Date of Receipt	25.09.2022	Sample Condition	Good & Received in Plastic Container
Analysis Starting Date	25.09.2022	Analysis Completion Date	30.09.2022

### Test Results:

The above sample tested as received, and results are as follows:

S. NO	PARAMETERS	METHOD	UNITS	RESULTS	LIMITS*
1	pH @ 25°C	4500-H+-B APHA 23 <sup>rd</sup> Edn. 2017	-	7.2	5.5 to 9.0
2	Total Suspended Solids (TSS)	2540-D- APHA 23 <sup>rd</sup> Edn. 2017	mg/l	16	Max.30
3	Biochemical Oxygen Demand (BOD) 3 days @ 27°C	5210-B APHA 23 <sup>rd</sup> Edn. 2017	mg/l	12	Max.20

Max. - Maximum

\*Limits as per TNPCB for Treated Sewage

\*\*\*END OF REPORT\*\*\*

For Chennai Testing Laboratory Pvt ltd

*A. Rajkumar*  
Authorised Signatory

**A. RAJKUMAR**  
Technical Manager  
(CHEMICAL)

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