

(An ISO: 9001: 2015, ISO 14001:2015 & ISO 45001:2018 & NABL Accredited Laboratory)
MoEF & CC (Ministry of Environment, Forest & Climate Change), UPPCB & HSPCB Recognized Laboratory
+91-9313611642, 8510081921, 7503031145, 8527870572, 7503031146, 9999794369

TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-03	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

NTL

SAMPLING & ANALYSIS DATA

Sample Drawn By :

Sample description : Stack Emission
Sampling Time : 30 minutes
Sampling Location : LIT 80 T Boiler

Sampling Plan & Procedure : IS:11255

Analysis Duration : 05/09/2020 to 10/09/2020

 Stack Temperature (°C)
 : 114

 Capacity (TPH/KVA/Kg/Hr)
 : 80 TPH

 Type of Fuel used
 : Coal

 Operating Load
 : Normal

 Type of Stack
 : RCC circular

Diameter of Stack (meter) : 1.5
Height of Stack from Ground level (meter) : 80.0
Average Flow Rate (LPM) : 15
Average Velocity of Emission (m/sec) : 10.6

#	TEST RESULT			
Parameter	Test Method	Results	Units	Emission Limits
Particulate Matter (PM) @12% CO ₂ Correction	IS:11255(Part-1)1985	88.20	mg/Nm³	150
Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	52,40	mg/Nm³	Limit Not Specified
Nitrogen Oxide (as NO _X)	IS:11255(Part-7) 2005	65.80	mg/Nm³	Limit Not Specified
	Particulate Matter (PM) @12% CO ₂ Correction Sulphur dioxide (as SO2)	Parameter Test Method Particulate Matter (PM) @12% CO ₂ IS:11255(Part-1)1985 Correction Sulphur dioxide (as SO2) IS:11255(Part-2)1985	Particulate Matter (PM) @12% CO ₂ IS:11255(Part-1)1985 88:20 Correction IS:11255(Part-2)1985 52:40	Parameter Test Method Results Units Particulate Matter (PM) @12% CO2 IS:11255(Part-1)1985 88:20 mg/Nm³ Correction IS:11255(Part-2)1985 52:40 mg/Nm³

Notes:

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- 4. This test report will not be used for any publicity/legal purpose.
- 5. The test samples will be disposed of after two weeks from the date of issue of test report, unless until specified by the customer.

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AUTHORIZED SIGNATORY



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TEST CERTIFICATE

Total Desire		
Test Report of	Report Code	Date of Issue
Stack Emission	COD AMARON AN	Date of Issue
Stack Emission	ST-050920-09	10/09/2020
		20,000

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

NTL Sample description Stack Emission Sampling Time 30 minutes Sampling Location TBW Boiler

Sampling Plan & Procedure IS:11255

Analysis Duration 05/09/2020 to 10/09/2020 Stack Temperature (°C)

110 Capacity (TPH/KVA/Kg/Hr) 45 TPH Type of Fuel used Coal Operating Load

Normal Type of Stack Metal circular

Diameter of Stack(meter) 1.5 Height of Stack from Ground level(meter) 68.0 Average Flow Rate (LPM) 13

Average Velocity of Emission (m/sec) 10.1

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1.	Particulate Matter (PM) @12% CO ₂ Correction	IS:11255(Part-1)1985	78.24	mg/Nm ³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	46.80	mg/Nm ³	Limit Not Specified
3:	Nitrogen Oxide (as NO _x)	IS:11255(Part-7) 2005	77.45	mg/Nm³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-07	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

NIL

SAMPLING & ANALYSIS DATA

Sample Drawn By

Sample description : Stack Emission
Sampling Time : 30 minutes
Sampling Location : Slop Boiler - 1
Sampling Plan & Procedure : IS:11255

Analysis Duration : 05/09/2020 to 10/09/2020

Stack Temperature (°C) : 124
Capacity (TPH/KVA/Kg/Hr) : 50 TPH
Type of Fuel used : Coal + Slop
Operating Load : Normal
Type of Stack : RCC circular

Diameter of Stack (meter) : 2.5
Height of Stack from Ground level(meter) : 81.0
Average Flow Rate (LPM) : 26
Average Velocity of Emission (m/sec) : 10.8

		TEST RESULT	10		
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1.	Particulate Matter (PM) @12% CO ₂ Correction	IS:11255(Part-1)1985	58.20	mg/Nm ³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	66.40	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO _X)	IS:11255(Part-7) 2005	75.31	mg/Nm ³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-08	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 30 minutes
Sampling Location : Slop Boiler- 02
Sampling Plan & Procedure : IS:11255

Analysis Duration : 05/09/2020 to 10/09/2020

 Stack Temperature (°C)
 : 123

 Capacity (TPH/KVA/Kg/Hr)
 : 50 TPH

 Type of Fuel used
 : Coal + Slop

 Operating Load
 : Normal

 Type of Stack
 : RCC circular

Diameter of Stack(meter) : 2.5
Height of Stack from Ground level(meter) : 98.0
Average Flow Rate (LPM) : 14
Average Velocity of Emission (m/sec) : 12.5

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
1.	Particulate Matter (PM) @12% CO ₂ Correction	IS:11255(Part-1)1985	76.23	mg/Nm³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	51.80	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO _X)	IS:11255(Part-7) 2005	72.50	mg/Nm³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-05	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

NTL

SAMPLING & ANALYSIS DATA

Sample Drawn By

Sample description : Stack Emission Sampling Time : 30 minutes

Sampling Location : MEG Heater (B-110 A)

Sampling Plan & Procedure : IS:11255

Analysis Duration : 05/09/2020 to 10/09/2020

Stack Temperature (°C)

Capacity (TPH/KVA/Kg/Hr)

Type of Fuel used : FO + Biogas
Fuel Consumption (per hour) : 0.25 + 200
Operating Load : Normal

Operating Load : Normal
Type of Stack : Metal circular
Diameter of Stack(meter) : 0.850

Diameter of Stack(meter) : 0.850
Height of Stack from Ground level(meter) : 45.0
Average Flow Rate (LPM) : 14
Average Velocity of Emission (m/sec) : 10.5

		TEST RESULT			
S. No.	Parameter	Test Method	Results	Units	Emission Limits
I.	Particulate Matter (PM)	IS:11255(Part-1)1985	63.25	mg/Nm ²	150
2,	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	52.12	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO _X)	1S:11255(Part-7) 2005	75.06	mg/Nm³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-04	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By : NTL

Sample description : Stack Emission
Sampling Time : 30 minutes

Sampling Location : MEG Heater (B-110)

Sampling Plan & Procedure : IS:11255

Analysis Duration : 05/09/2020 to 10/09/2020

Stack Temperature (°C) : 11

Capacity (TPH/KVA/Kg/Hr)

Type of Fuel used : FO + Biogas
Fuel Consumption (per hour) : 0.25 + 200
Operating Load : Normal
Type of Stack : Metal circular
Diameter of Stack(meter) : 0.838

Height of Stack from Ground level(meter) : 30.0

Average Flow Rate (LPM) : 28

Average Velocity of Emission (m/sec) : 10.8

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
I.	Particulate Matter (PM)	IS:11255(Part-1)1985	58.18	mg/Nm³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	41.26	mg/Nm ³	Limit Not Specified
3.	Nitrogen Oxide (as NO _X)	IS:11255(Part-7) 2005	65.50	mg/Nm³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Stack Emission	ST-050920-06	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

Sample Drawn By
Sample description
Sampling Time

Sampling Location :

Sampling Plan &Procedure
Analysis Duration

Stack Temperature (°C)
Capacity (TPH/KVA/Kg/Hr)

Type of Fuel used Fuel Consumption (per hour)

Operating Load Type of Stack Diameter of Stack(meter)

Height of Stack from Ground level(meter)
Average Flow Rate (LPM)
Average Velocity of Emission (m/sec)

Average Velocity of Emission (m/sec)

NTL

Stack Emission 30 minutes

MEG Heater (B-110 B)

IS:11255

05/09/2020 to 10/09/2020

121

FO + Biogas 0.25 + 200 Normal

Metal circular 0.850

45.0 14 10.8

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Emission Limits
I.	Particulate Matter (PM)	IS:11255(Part-1)1985	62.35	mg/Nm ³	150
2.	Sulphur dioxide (as SO2)	IS:11255(Part-2)1985	45.60	mg/Nm³	Limit Not Specified
3.	Nitrogen Oxide (as NO _X)	IS:11255(Part-7) 2005	78.12	mg/Nm ³	Limit Not Specified

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-050920-012	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn On

: 05/09/2020

Sample Drawn By

: NTL

Sampling Location

: Chemical Plant

Test Results					
S.No.	Parameter	Test Method	Results	Unit	Permission Limit
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.098	mg/m ³	15 as per OSHA
2.	Sulphur dioxide (SO ₂)	IS:5182 (P-2)	0.014	mg/m³	5.0 as per factories act, 1948
3.	Nitrogen dioxide (NO ₂)	IS:5182 (P-6)	0.018	mg/m ³	6.0 as per factories act, 1948
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m ³	0.15 as per factories act, 1948
5.	Hydrogen Chloride (as HCL)	SOP-S/99/31	2.10	mg/m ³	7.0 as per factories act, 1948

OSHA-Occupational Safety & Health Administration,

Notes:

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-050920-014	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn On

: 05/09/2020

Sample Drawn By

: NTL

Sampling Location

: Ethoxylate Plant

	Test Results					
S.No.	Parameter	Test Method	Results	Unit	Permission Limit	
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.095	mg/m ³	15 as per OSHA	
2.	Sulphur dioxide (SO ₂)	IS:5182 (P-2)	0.012	mg/m³	5.0 as per factories act, 1948	
3.	Nitrogen dioxide (NO ₂)	IS:5182 (P-6)	0.015	mg/m ³	6.0 as per factories act, 1948	
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m ³	0.15 as per factories act, 1948	
5.	Hydrogen Chloride (as HCL)	SOP-S/99/31	1.78	mg/m ³	7.0 as per factories act, 1948	

OSHA-Occupational Safety & Health Administration.

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Work Zone Air Quality Analysis	WZ-050920-013	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn On

: 05/09/2020

Sample Drawn By

NTL

Sampling Location

Formulation Plant

		Test Results			
S.No.	Parameter	Test Method	Results	Unit	Permission Limit
1.	Suspended Particulate matter (SPM)	IS:5182 (P-4)	0.097	mg/m ³	15 as per OSHA
2.	Sulphur dioxide (SO ₂)	IS:5182 (P-2)	0.010	mg/m³	5.0 as per factories act, 1948
3.	Nitrogen dioxide (NO ₂)	IS:5182 (P-6)	0.016	mg/m ²	6.0 as per factories act, 1948
4.	Lead (as Pb)	IS:5182 (P-22)	<0.1	mg/m³	0.15 as per factories act, 1948
5.	Hydrogen Chloride (as HCL)	SOP-S/99/31	1.21	mg/m ³	7.0 as per factories act, 1948

OSHA-Occupational Safety & Health Administration.

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AUTHORIZED SIGNAFORY



DA TESTING LABORATORI

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
bient Air Quality Analysis	AAQ-050920-05	
Zamity zimityata	AAQ-030920-03	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

NTL

Date of Sample Received Sample Description

05/09/2020 Ambient Air

Sampling Location

Main Gate Near Security Office

Sampling Plan & Procedure

SOP-AAQ/08

Analysis Duration

05/09/2020 to 06/09/2020

Average Flow Rate of SPM (m3/min.) Average Flow Rate of Gases (lpm)

1.16

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM25) With Gaseous Attachment

Weather Condition

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM ₁₀)	IS:5182 Part-XXIII	81.2	μg/m³	100.0
2.	Particulate Matter (PM _{2.5})	CPCB Volume – 1 / Gravimetric	41.39	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	8.41	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	16.25	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	< 0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic (as As)	APHA-AIR302	<5.00	ng/m	
9.	Ozone (as O ₃)	IS:5182 Part-IX	<10.0	μg/m³	6.0
10.	Ammonia (as NH ₃)	APHA-AIR402	< 20.00	μg/m³	180.0
11.	Benzene (as C ₆ H ₆)	IS:5182 Part-XI	< 1.00		400.0
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	μg/m³ ng/m³	1.0

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-050920-04	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sample Received Sample Description

Sampling Location

Sampling Plan &Procedure

Analysis Duration

Weather Condition

Average Flow Rate of SPM (m³/min.) Average Flow Rate of Gases (lpm)

Sampling Instrument Used

05/09/2020 Ambient Air

NTL

IGL Colony Near STP SOP-AAQ/08

05/09/2020 to 06/09/2020

1.15

Respirable Dust Sampler (PM10) Fine Particulate Sampler (PM25) With Gaseous Attachment

Clear

TEST RESULT Limits as per S. No. Parameter Test Method Results Units Environment (Protection) Act. 1. Particulate Matter (PM10) IS:5182 Part-XXIII 73.21 μg/m³ 100.0 2. Particulate Matter (PM25) CPCB Volume - 1/ 38.10 60.0 μg/m³ Gravimetric 3. Sulphur Dioxide IS:5182 Part-II 7.60 µg/m3 80.0 4. Nitrogen Dioxide IS:5182 Part-VI 14.89 $\mu g/m^3$ 80 5. Carbon Monoxide IS:5182 Part-X < 1.15 mg/m3 4.0 6. Lead(as Pb) IS:5182 Part-XXII < 0.10 μg/m³ 1.0 7. Nickel (as Ni) APHA-AIR420 <20.00 ng/m3 20.0 8. Arsenic (as As) APHA-AIR302 <5.00 ng/m3 6.0 9. Ozone (as O₃) IS:5182 Part-IX <10.0 μg/m³ 180.0 10. Ammonia (as NH₃) APHA-AIR402 < 20.00 μg/m³ 400.0 11. Benzene (as C₆H₆) IS:5182 Part-XI < 1.00 μg/m³ 5.0 12. Benzo(a) Pyrine- Particulate IS:5182 Part-XI < 1.00 ng/m3 1.0 phase only

Notes: -

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TEST CERTIFICATE

Report Code	Date of Issue
AAQ-050920-01	10/09/2020
	AAQ-050920-01

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

Date of Sample Received Sample Description

Sampling Location

Sampling Plan &Procedure

Analysis Duration

Average Flow Rate of SPM (m³/min.) Average Flow Rate of Gases (lpm)

Sampling Instrument Used

Weather Condition

NTL

05/09/2020 Ambient Air

Bio Gas Plant - Behind Laboratory

SOP-AAQ/08 05/09/2020 to 06/09/2020

1.12

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM ₁₀)	IS:5182 Part-XXIII	80.24	μg/m³	100.0
2.	Particulate Matter (PM _{2.5})	CPCB Volume – 1 / Gravimetric	44.32	μg /m ³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	14.6	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	24.7	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	< 0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic (as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O ₃)	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH ₃)	APHA-AIR402	< 20.00	μg/m³	400.0
11.	Benzene (as C ₆ H ₆)	IS:5182 Part-XI	< 1.00	μg/m³	5.0
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0

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TESTING LABORATORI

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-050920-02	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By NTL

Date of Sample Received 05/09/2020 Sample Description Ambient Air

Sampling Location Coal Yard near Slop 2 Control Room

Sampling Plan & Procedure SOP-AAQ/08

Analysis Duration 05/09/2020 to 06/09/2020

Average Flow Rate of SPM (m³/min.) 1.10 Average Flow Rate of Gases (lpm)

Sampling Instrument Used Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment

Weather Condition

TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act
1.	Particulate Matter (PM ₁₀)	IS:5182 Part-XXIII	90.12	μg/m³	100.0
2.	Particulate Matter (PM _{2.5})	CPCB Volume – 1 / Gravimetric	48.7	μg/m³	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	12.4	μg/m³	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	27.2	μg/m³	80
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0
6.	Lead(as Pb)	IS:5182 Part-XXII	< 0.10	μg/m³	1.0
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0
8.	Arsenic (as As)	APHA-AIR302	<5.00	ng/m³	6.0
9.	Ozone (as O ₃)	IS:5182 Part-IX	<10.0	μg/m³	180.0
10.	Ammonia (as NH ₃)	APHA-AIR402	< 20.00	μg/m³	400.0
11.	Benzene (as C ₆ H ₆)	IS:5182 Part-XI	< 1.00	μg/m³	5.0
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Ambient Air Quality Analysis	AAQ-050920-03	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

NTL

Date of Sample Received

05/09/2020 Ambient Air

Sample Description Sampling Location

Fire Station

Sampling Plan & Procedure

SOP-AAQ/08

Analysis Duration

05/09/2020 to 06/09/2020

Average Flow Rate of SPM (m3/min.) Average Flow Rate of Gases (lpm)

1.14 1.0

Sampling Instrument Used

Respirable Dust Sampler (PM10) Fine Particulate

Sampler (PM25) With Gaseous Attachment Clear

Weather Condition

	TEST RESULT					
S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act	
1.	Particulate Matter (PM ₁₀)	IS:5182 Part-XXIII	72.86	μg/m³	100.0	
2.	Particulate Matter (PM _{2.5})	CPCB Volume – 1 / Gravimetric	37.12	μg /m³	60.0	
3.	Sulphur Dioxide	IS:5182 Part-II	8.55	μg/m³	80.0	
4.	Nitrogen Dioxide	IS:5182 Part-VI	14.78	μg/m³	80	
5.	Carbon Monoxide	IS:5182 Part-X	< 1.15	mg/m³	4.0	
6.	Lead(as Pb)	IS:5182 Part-XXII	< 0.10	μg/m³	1.0	
7.	Nickel (as Ni)	APHA-AIR420	<20.00	ng/m³	20.0	
8.	Arsenic (as As)	APHA-AIR302	<5.00	ng/m³	6.0	
9.	Ozone (as O ₃)	IS:5182 Part-IX	<10.0	μg/m³	180.0	
10.	Ammonia (as NH ₃)	APHA-AIR402	< 20.00	μg/m³	400.0	
11.	Benzene (as C ₆ H ₆)	IS:5182 Part-XI	< 1.00	μg/m³	5.0	
12.	Benzo(α) Pyrine- Particulate phase only	IS:5182 Part-XI	< 1.00	ng/m³	1.0	

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TEST CERTIFICATE

Waste Water WW 050020 05	Test Report of	Report Code	Date of Issue
77 date 77 dtel	Waste Water	WW-050920-05	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Received On Sample Collected By Sampling Location

: 05/09/2020 : Laboratory

Sample Description
Analysis Duration

: IGL Colony : STP Outlet

: 05/09/2020 to 10/09/2020

S. No.	Parameter	Test Method	Results	Units	Limits as per CPCB norms
1.	pH	IS:3025(Part-11):1983	7.24	-	5.0-9.0
2.	Total Suspended Solid	IS:3025(Part-17):1984	35.0	mg/l	100.0
3.	Chemical Oxygen Demand (as O ₂)	APHA 5220 B:2005	78.8	mg/l	250
4.	Biological Oxygen Demand (as O ₂)	IS:3025(Part-44):1993	18.2	mg/l	30
5.	Oil & grease	IS:3025(Part-39):1984	<1.0	mg/l	10

Remarks: Test parameters coming in under limit, prescribe limits are given by MoEF/Central Pollution Control Board.

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TEST CERTIFICATE

Test Report of Report Co	e Date of Issue
Waste Water WW-050920	- THE OF ADDING

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Received On

: 05/09/2020

Sample Collected By

: Laboratory : Chemical Plant

Sampling Location Sample Description Analysis Duration

: Effluent Treatment Plant : 05/09/2020 to 10/09/2020

TEST RESULTS					
S. No.	Parameter	Test Method	Results	Units	Limits as per CPCB norms
1,	pH	IS:3025(Part-11):1983	7.31		5.0-9.0
2.	Total Suspended Solid	IS:3025(Part-17):1984	28.0	mg/l	100.0
3.	Chemical Oxygen Demand (as O2)	APHA 5220 B:2005	92.0	mg/l	250
4.	Biological Oxygen Demand (as O2)	IS:3025(Part-44):1993	18.0	mg/l	30
5.	Oil & grease	IS:3025(Part-39);1984	<1.0	mg/l	10

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Waste Water	WW-050920-03	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Received On

05/09/2020

Sample Collected By

Laboratory

Sampling Location

Substation Area

Sample Description Analysis Duration

STP Outlet

: 05/09/2020 to 10/09/2020

S. No.	Parameter	Test Method	Results	Units	Limits as per CPCB norms
1.	pH	IS:3025(Part-11):1983	7.18		5.0-9.0
2.	Total Suspended Solid	IS:3025(Part-17):1984	41.0	mg/l	100.0
3.	Chemical Oxygen Demand (as O2)	APHA 5220 B:2005	75.0	mg/l	250
4.	Biological Oxygen Demand (as O ₂)	IS:3025(Part-44):1993	19.0	mg/l	30
5.	Oil & grease	IS:3025(Part-39):1984	<1.0	mg/l	10

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Waste Water	WW-050920-04	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttrakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Received On Sample Collected By

05/09/2020 Laboratory Sampling Location Surfactant Area Sample Description STP Outlet

Analysis Duration

05/09/2020 to 10/09/2020

TEST RESULTS									
Parameter	Test Method	Results	Units	Limits as per CPCB norms					
pH	IS:3025(Part-11):1983	7.38	- 3	5.0-9.0					
Total Suspended Solid	IS:3025(Part-17):1984	46.0	mg/l	100.0					
Chemical Oxygen Demand (as O2)	APHA 5220 B:2005	74.0	mg/l	250					
Biological Oxygen Demand (as O ₂)	IS:3025(Part-44):1993	21.0	mg/l	30					
Oil & grease	IS:3025(Part-39):1984	<1.0	mg/l	10					
	pH Total Suspended Solid Chemical Oxygen Demand (as O ₂) Biological Oxygen Demand (as O ₂)	Parameter Test Method pH IS:3025(Part-11):1983 Total Suspended Solid IS:3025(Part-17):1984 Chemical Oxygen Demand (as O2) APHA 5220 B:2005 Biological Oxygen Demand (as O2) IS:3025(Part-44):1993	Parameter Test Method Results pH IS:3025(Part-11):1983 7.38 Total Suspended Solid IS:3025(Part-17):1984 46.0 Chemical Oxygen Demand (as O2) APHA 5220 B:2005 74.0 Biological Oxygen Demand (as O2) IS:3025(Part-44):1993 21.0	Parameter Test Method Results Units pH IS:3025(Part-11):1983 7.38 - Total Suspended Solid IS:3025(Part-17):1984 46.0 mg/l Chemical Oxygen Demand (as O2) APHA 5220 B:2005 74.0 mg/l Biological Oxygen Demand (as O2) IS:3025(Part-44):1993 21.0 mg/l					

Remarks: Test parameters coming in under limit, prescribe limits are given by MoEF/Central Pollution Control Board.

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Water Sample	W-050920-013	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttarakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

Sample Received On

Sample Quantity

Sample packing Details

Analysis Duration

Sample Description

Sampling Location

Required Test Standard

NIL

05/09/2020

2.0 lit

In Sealed Plastic Bottle & Glass Bottle

05/09/2020 to 10/09/2020

Bore well Water

Chemical Plant

IS 10500: 2012

MICROBIOLOGICAL REQUIREMENT

		RESULTS		
S.No.	Parameter	Test Method	Results	Required as per IS- 10500:2012
110	Escherichia coli	IS-1622	Absent	Absent/100ml
2	Coliform Bacteria	IS-1622	Absent	Absent/100ml

ORGANOLEPTIC & PHYSICAL PARAMETERS

S.No.	Parameter	Test Method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
I.	Colour	IS-3025(P-04)	<1.00	Hazen Unit	5	15
2.	Odour	IS-3025(P-05)	Agreeable	-	Agrecable	Agrecable
3.	Taste IS-3025(P-07 & 08)	Agreeable	2	Agreeable	11000000	
4.	Turbidity	IS-3025(P-10)	<1.00	NTU	1	5
5.	pH value	IS-3025(P-11)	7.127	-	6.5 - 8.5	-
6.	Total dissolve solid (TDS)	IS-3025(P-16)	289	mg/l	500	2000

GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
I,	Aluminium (as Al)	IS: 3025 (P- 55)	< 0.01	mg/I	0.03	0.2
2.	Total Ammonia	18: 3025 (P- 34)	< 0.10	mg/I	0.5	No Relaxation
2. 3.	Anionic Detergents (as MBAS)	Annex K of IS- 13428	< 0.10	mg/l	0.2	1.0
4.	Barium (as Ba)	IS: 15302	< 0.10	mg/l	0.7	No Relaxation
5.	Boron (as B)	IS: 3025 (P- 57)	< 0.10	mg/i	0.5	1.0
6.	Calcium (as Ca)	IS: 3025 (P-40)	32.50	mg/l	75	200



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TEST CERTIFICATE

7.	Chloramines (as Cl ₂)	IS: 3025 (P- 26)	<1.00	mg/l	4.0	No Relaxation
8.	Chloride (as Cl)	IS: 3025 (P- 32)	24.60	mg/l	250	1000
9.	Copper (as Cu)	IS: 3025 (P-42)	< 0.05	mg/l	0.05	1.5
10.	Fluoride (as F)	IS: 3025 (P-60)	<1.0	mg/l	1.0	1.5
	et and et al. of the control of the				0.2	1.0
11.	Free Residual Chlorine	IS: 3025 (P-26)	BDL	mg/l	Tested at consumer en	when water is chlorinated, d. When protection against ed, it should be minimum
12.	Iron (as Fe)	IS: 3025(P-53)	0.045	mg/l	1.0	No Relaxation
13.	Magnesium (as mg)	IS: 3025 (P-46)	27.88	mg/l	30	100
14.	Manganese (as Mn)	IS: 3025 (P-59)	< 0.10	mg/l	0.1	0.3
15.	Mineral Oil	Clause 6 of IS: 3025	< 0.50	mg/I	0,5	No Relaxation
16.	Nitrate (as NO ₃)	IS: 3025 (P- 34)	2.12	mg/l	45	No Relaxation
17.	Selenium (as Se)	IS: 3025 (P- 56)	< 0.01	mg/l	0.01	No Relaxation
18.	Silver (as Ag)	Annex J IS: 13428	< 0.05	mg/l	0.1	No Relaxation
19.	Sulphate (as SO ₄)	IS: 3025 (P- 24)	16.8	mg/l	200	400
20.	Sulphide(as H ₂ S)	1S-3025 (P-29)	< 0.05	mg/l	0.05	No Relaxation
21.	Alkalinity (as Ca CO ₁)	IS: 3025 (P-23)	189.0	mg/l	200	600
22.	Total Hardness (as CaCO ₃)	IS: 3025 (P- 21)	196.0	mg/I	200	600
23.	Zinc (as Zn)	IS: 3025 (P-49)	< 0.05	mg/l	5.0	15

Parameters Concerning Toxic Substances:

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
La	Cadmium (as Cd)	IS-3025(P-41)	< 0.001	mg/l	0.003	No Relaxation
2.	Cyanide (as CN)	1S-3025(P-27)	< 0.01	mg/l	0.05	No Relaxation
3.	Lead (as Pb)	IS-3025(P-47)	< 0.01	mg/l	0.01	No Relaxation
4.	Mercury (as Hg)	IS-3025(P-48)	< 0.001	mg/l	0.001	No Relaxation
5.	Molybdenum (Mo)	IS-3025(P-2)	< 0.05	mg/l	0.07	No Relaxation
6.	Nickel (as Ni)	IS-3025(P-54)	< 0.01	mg/l	0.02	No Relaxation
7.	Poly nuclear Aromatic Hydro Carbons	APHA 6440	<0.0001	mg/l	0.0001	No Relaxation
8	Poly chlorinated biphenyl	APHA 6630	< 0.0001	mg/l	0.0005	No Relaxation
9.	Total Arsenic (as As)	IS-3025(P-37)	<0.01	mg/l	0.01	No Relaxation
10.	Total Chromium (as Cr)	IS-3025(P-52)	< 0.05	mg/l	0.05	No Relaxation

BDL: Below Detection limit.

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TEST CERTIFICATE

Test Report of	Report Code	Date of Issue
Water Sample	W-050920-014	10/09/2020

Issued To:

M/s India Glycols Limited

A-1, Industrial Area, Bazpur Road, Kashipur (Uttarakhand)- 244713

SAMPLING & ANALYSIS DATA

Sample Drawn By

Sample Received On

Sample Quantity

Sample packing Details

Analysis Duration Sample Description

Sampling Location Required Test Standard NTL

05/09/2020

2.0 lit

In Sealed Plastic Bottle & Glass Bottle

05/09/2020 to 10/09/2020

: Bore well Water : Ethanol Plant

: IS 10500: 2012

MICROBIOLOGICAL REQUIREMENT

		RESULTS		
S.No.	Parameter	Test Method	Results	Required as per IS- 10500:2012
E	Escherichia coli	IS-1622	Absent	Absent/100ml
2.	Coliform Bacteria	IS-1622	Absent	Absent/100ml

ORGANOLEPTIC & PHYSICAL PARAMETERS

S.No.	Parameter	Test Method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1.	Colour	IS-3025(P-04)	<1.00	Hazen Unit	5	15
2.	Odour	IS-3025(P-05)	Agreeable	_	Agreeable	Agreeable
3.	Taste 1S-3025(P-07 & 08)	Agreeable		Agrecable		
4.	Turbidity	IS-3025(P-10)	<1.00	NTU	1	5
5	pH value	IS-3025(P-11)	7.18		6.5 - 8.5	-
6.	Total dissolve solid (TDS)	IS-3025(P-16)	368	me/l	500	2000

GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIVE AMOUNTS

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
L.	Aluminium (as Al)	IS: 3025 (P-55)	< 0.01	mg/l	0.03	0.2
2.	Total Ammonia	IS: 3025 (P- 34)	< 0.10	mg/l	0.5	No Relaxation
3.	Anionic Detergents (as MBAS)	Annex K of IS- 13428	<0.10	mg/l	0.2	1.0
4.	Barium (as Ba)	IS: 15302	< 0.10	mg/l	0.7	No Relaxation
5.	Boron (as B)	1S: 3025 (P- 57)	< 0.10	mg/l	0.5	1.0
6.	Calcium (as Ca)	IS: 3025 (P-40)	48.21	mg/l	75	200



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TEST CERTIFICATE

7.	Chloramines (as Cl ₂)	IS: 3025 (P- 26)	<1.00	mg/l	4,0	No Relaxation
8.	Chloride (as CI)	IS: 3025 (P- 32)	27.18	mg/l	250	1000
9.	Copper (as Cu)	IS: 3025 (P-42)	< 0.05	mg/l	0.05	1.5
10.	Fluoride (as F)	IS: 3025 (P-60)	<1.0	mg/l	1.0	1.5
4.0		A		11.53	0.2	1.0
11.	Free Residual Chlorine	18: 3025 (P-26)	BDL	mg/l	Tested at consumer en	when water is chlorinated, d. When protection against red, it should be minimum
12.	Iron (as Fe)	IS: 3025(P-53)	0.061	mg/l	1.0	No Relaxation
13.	Magnesium (as mg)	IS; 3025 (P-46)	22.95	mg/l	30	100
14.	Manganese (as Mn)	IS: 3025 (P-59)	< 0.10	mg/l	0.1	0.3
15.	Mineral Oil	Clause 6 of IS: 3025	< 0.50	mg/I	0,5	No Relaxation
16.	Nitrate (as NO ₃)	IS: 3025 (P- 34)	2.38	mg/l	45	No Relaxation
17.	Selenium (as Se)	IS: 3025 (P- 56)	< 0.01	mg/l	0.01	No Relaxation
18.	Silver (as Ag)	Annex J IS: 13428	< 0.05	mg/l	0.1	No Relaxation
19.	Sulphate (as SO ₄)	IS: 3025 (P-24)	21.5	mg/l	200	400
20.	Sulphide(as H ₂ S)	IS-3025 (P-29)	< 0.05	mg/l	0.05	No Relaxation
21,	Alkalinity (as Ca CO ₃)	IS: 3025 (P- 23)	208.0	mg/l	200	600
22.	Total Hardness (as CaCO ₃)	IS: 3025 (P- 21)	215.0	mg/l	200	600
23.	Zinc (as Zn)	IS: 3025 (P-49)	< 0.05	mg/l	5.0	15

Parameters Concerning Toxic Substances:

S.No.	Parameter	Test method	Result	Unit	Requirement (Acceptable Limit)	Permissible Limit in absence of alternate source
1,	Cadmium (as Cd)	IS-3025(P-41)	<0.001	mg/l	0.003	No Relaxation
2.	Cyanide (as CN)	IS-3025(P-27)	< 0.01	mg/l	0.05	No Relaxation
3.	Lead (as Pb)	IS-3025(P-47)	< 0.01	mg/l	0.01	No Relaxation
4.	Mercury (as Hg)	IS-3025(P-48)	< 0.001	mg/l	0.001	No Relaxation
5,	Molybdenum (Mo)	IS-3025(P-2)	< 0.05	mg/l	0.07	No Relaxation
6,	Nickel (as Ni)	IS-3025(P-54)	< 0.01	mg/l	0.02	No Relaxation
7,	Poly nuclear Aromatic Hydro Carbons	APHA 6440	<0.0001	mg/l	1000.0	No Relaxation
8	Poly chlorinated biphenyl	APHA 6630	< 0.0001	mg/l	0.0005	No Relaxation
9.	Total Arsenic (as As)	IS-3025(P-37)	< 0.01	mg/l	0.01	No Relaxation
10.	Total Chromium (as Cr)	IS-3025(P-52)	< 0.05	mg/l	0.05	No Relaxation

BDL: Below Detection limit.

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. Responsibility of the Laboratory is limited to the invoiced amount only
- 3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
- 4. This test report will not be used for any publicity/legel purpose.
- 5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

CHECKEDBY