

Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2853

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2853/2
M/s MOIL LIMITED, Beldongri Manganese Mines L2=12.990Ha Site, Dist:- Nagpur (M.S)	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near OCF
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/hrs.(Avg)	SSE

RESULT

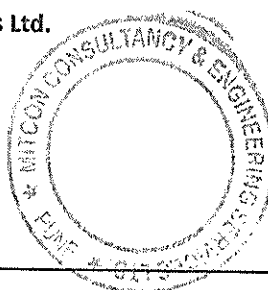
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	13.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	18.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	69.6	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	34.0	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	4.0	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.378	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.2	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By
(Mrs.Kadambari Deshmukh)



Sandeep Jadhav
Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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MITCON Consultancy & Engineering Services Ltd.

Environment Management and Engineering Division

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005,

Ph. No. 66289405/400, email: emelab@mitconindia.com

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Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2853

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2853/3
M/s MOIL LIMITED, Beldongri Manganese Mines L2=12.990Ha Site, Dist-Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON

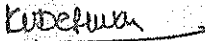
READINGS

Sr. No.	Test Location	Unit	Readings
01	Near OCF	dB(A)	64.8

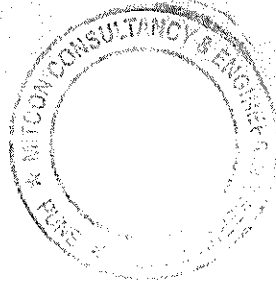
REMARKS / OBSERVATIONS:

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.


Checked By

(Mrs. Kadambari Deshmukh)





Authorized Signatory
Dr. Sandeep Jadhav
(Senior Vice President)

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2853

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Beldongri Manganese Mines L2=12.990Ha Site, Dist:-Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2853/1
	Name of Sample	Ground Water
	Sample Details	OCF Bore well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
End Date of Analysis	28/02/2023	

ANALYSIS RESULTS

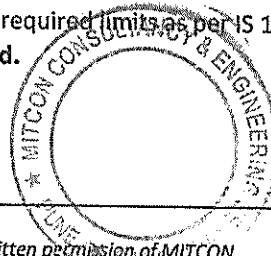
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.18	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	260.4	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	121.25	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	41.25	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	14.52	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	110.25	Mg/l	< 200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	< 1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	28.52	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.67	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	8.52	mg/l	≤ 45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

- The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd.

Checked By Kadambari Deshmukh
 (Mrs. Kadambari Deshmukh)



Dr. Sandeep Jadhav
 Authorized Signatory
 (Dr. Sandeep Jadhav)
 Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2815/5
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:- Nagpur (M.S)	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Haul Road
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/hrs.(Avg)	SSW


RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	13.2	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	18.5	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	69.3	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	34.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	4.0	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.346	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.3	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS:5182
10	Benzo(a)Pyrene (BaP).	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS


REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.


 Checked By
 (Mrs.Kadambari Deshmukh)




 Authorized Signatory
 Dr. Sandeep Jadhav
 Senior vice president

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Test Report

Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2815/6
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Electric Sub Station
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSW

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.2	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	17.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	62.9	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	29.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.5	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.332	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.7	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

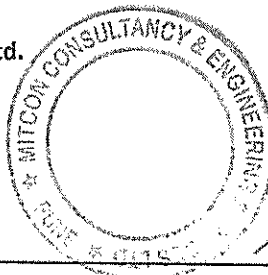
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

KADAMBARI
Checked By

(Mrs.Kadambari Deshmukh)



Dr. Sandeep Jadhav

Authorized Signatory

Dr. Sandeep Jadhav

Senior vice president

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Environment Management and Engineering Division

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Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2815/7
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Staff Colony
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSW

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	11.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	14.3	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	58.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	27.0	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.0	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.238	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.4	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

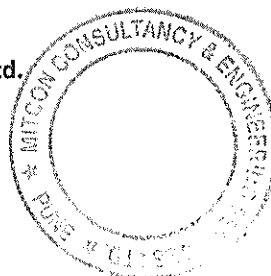
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs.Kadambari Deshmukh)



SD
Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2815/8/
M/s MOIL LIMITED, Beldongri Manganese Mines LI=26.660 Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Hospital
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSW

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	11.4	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	16.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	60.2	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	29.5	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	2.2	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.302	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.4	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

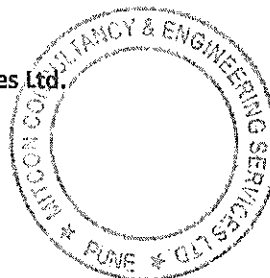
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs.Kadambari Deshmukh)



Sandeep
Authorized Signatory

Dr. Sandeep Jadhav
Senior vice president

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Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2815/9
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:-Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON


READINGS

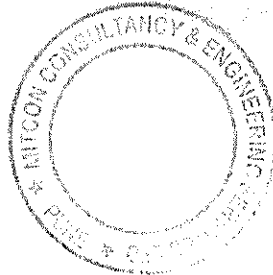
Sr. No.	Test Location	Unit	Readings
01	Near Compressor Room	dB(A)	71.8
02	Near Haul Road	dB(A)	68.3
03	Near Jack Hammer Drill	dB(A)	70.1
04	Near Vertical Fan	dB(A)	69.9


REMARKS / OBSERVATIONS:

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
(Senior Vice President)

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Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:-Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2815/1
	Name of Sample	Ground Water
	Sample Details	Satak Village Borewell Water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

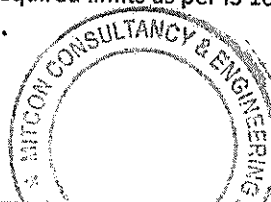
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.11	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	220.0	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	104.2	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	38.76	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	13.24	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	95.48	Mg/l	< 200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	< 1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	25.29	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.24	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	8.84	mg/l	≤ 45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

- The above water sample is complying with required limits as per IS 10500:2012.

For MITCON Consultancy & Engineering Services Ltd.

Checked By *Kadambari*
 (Mrs. Kadambari Deshmukh)



(Signature)
 Authorized Signatory
 (Dr. Sandeep Jadhav)
 Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:-Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2815/2
	Name of Sample	Ground Water
	Sample Details	Mine Office drinking water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

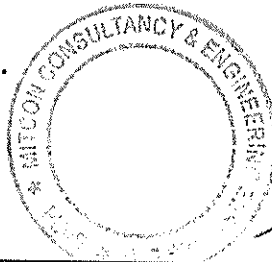
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.15	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.2	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	265.6	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	125.23	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	51.20	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	12.34	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	105.50	Mg/l	< 200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	< 1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	45.56	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.90	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	4.77	mg/l	≤ 45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Checked By *Kadambari*

(Mrs. Kadambari Deshmukh)



(Signature)

Authorized Signatory
(Dr. Sandeep Jadhav)
Senior Vice President

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Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:-Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2815/3
	Name of Sample	Ground water
	Sample Details	Staff colony borewell
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

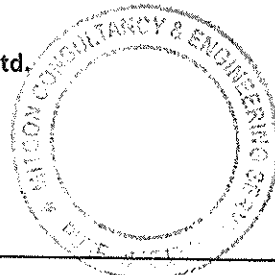
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.30	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	1.3	NTU	≤ 1	IS: 3025 Part:10 (R.A : 2002)
04	Total Dissolved Solids	298.0	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	148.96	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	38.12	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	21.02	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	124.20	Mg/l	< 200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	< 1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	18.14	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	10.89	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	5.72	mg/l	≤ 45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory

(Dr. Sandeep Jadhav)
Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2815

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Beldongri Manganese Mines L1=26.660 Ha Site, Dist:-Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2815/4
	Name of Sample	Waste water
	Sample Details	Mine Discharge Water from underground 234 MRL
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.24	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	2.6	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	49.6	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	19.9	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	30.2	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	< 5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.39	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Kadambari

Checked By

(Mrs. Kadambari Deshmukh)



JV

Authorized Signatory

(Dr. Sandeep Jadhav)

Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2619/5
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist:- Nagpur (M.S)	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Bankuri Road
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/hrs.(Avg)	SSE

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	11.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	16.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	60.2	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	30.4	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.2	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.358	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.5	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

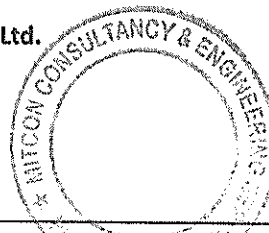
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs.Kadambari Deshmukh)



Sandeep
Authorized Signatory

Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2619/6
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Beldongri Road
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSE

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.2	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	17.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	63.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	32.2	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.6	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.360	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.0	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	12.2	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	17.0	≤ 20	APHA - AAS

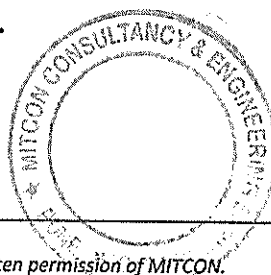
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs.Kadambari Deshmukh)



J.D.

Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2619/7
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Satak Road
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/hrs.(Avg)	SSE

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.5	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	17.2	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	64.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	33.5	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	4.0	≤100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.368	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.4	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

REMARKS/OBSERVATIONS:

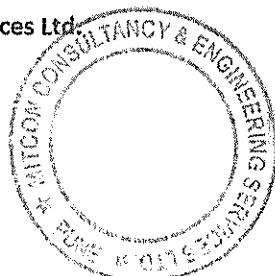
- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.


For MITCON Consultancy & Engineering Services Ltd.



Checked By

(Mrs.Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2619/8
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Pit no. 2
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSE

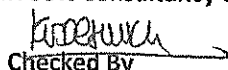
RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	13.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	17.4	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	69.3	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	36.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	4.5	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.420	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.9	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

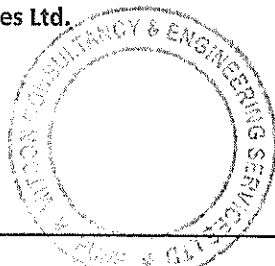
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.


Checked By

(Mrs.Kadambari Deshmukh)





Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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MITCON Consultancy & Engineering Services Ltd.

Environment Management and Engineering Division

(Environmental Laboratory)

Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005,
Ph. No. 66289405/400, email: emelab@mitconindia.com

- ISO 45001:2018 (OHSAS) Certified Laboratory.
- Recognized by MoEF & CC



Solutions for Sustainable Tomorrow

Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2619/9
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON


READINGS

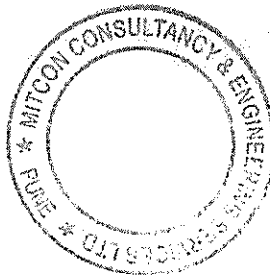
Sr. No.	Test Location	Unit	Readings
01	Near Bankuri Road	dB(A)	58.8
02	Near Beldongri road	dB(A)	51.0
03	Near Satak Road	dB(A)	52.6
04	Near Pit no. 2	dB(A)	67.9


REMARKS / OBSERVATIONS:

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
(Senior Vice President)

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Environment Management and Engineering Division

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Agriculture College Campus, Next to DIC office, Shivaji Nagar, Pune. 411 005,

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Solutions for Sustainable Tomorrow

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Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2619/1
	Name of Sample	waste Water
	Sample Details	Pit No. 2
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
End Date of Analysis	28/02/2023	

ANALYSIS RESULTS

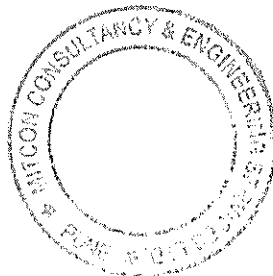
Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.16	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.0	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	75.0	mg/l	250	APHA 5220 C,5-20 to 5-21 23 rd Ed 2017
04	Biochemical Oxygen	22.5	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	32.9	mg/l	100	APHA 2540 D,2-70 to 2-71 23 rd Ed 2017
06	Oil and grease	<5	mg/l	10	APHA 5520 B,5-42 to 5-43 23 rd Ed 2017
07	Manganese	0.45	mg/l	2	APHA 3111 B,3-18 to 3-21 23 rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.


Checked By

(Mrs. Kadambari Deshmukh)



Authorized Signatory

(Dr. Sandeep Jadhav)

Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023


Client's Name & Address		Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2619/2	
	Name of Sample	Waste water	
	Sample Details	Pit No. 4	
	Container Details	1 lit plastic can	
	Sample Collected By	MITCON	
	Method of sampling	IS 3025(Part I)	
	Sample Collected On	20/02/2023	
	Date of Sample Receipt	22/02/2023	
	Analysis Start Date	22/02/2023	
	End Date of Analysis	28/02/2023	

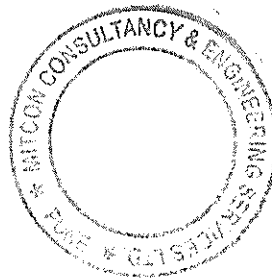
ANALYSIS RESULTS


Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.23	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	2.7	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	67.4	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	21.3	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	35.5	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	< 5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.38	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
(Dr. Sandeep Jadhav)
Senior Vice President

Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L1=8.680 Ha Site, Dist:- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2619/3
	Name of Sample	Ground water
	Sample Details	Mine Bore well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

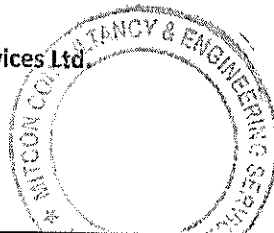
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.27	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	<5	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	<1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	290.5	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	120.25	mg/l	≤200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	35.27	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	20.12	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	105.42	Mg/l	<200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	<1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	85.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	18.15	mg/l	≤ 200	APHA 4500 -SO4 -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	3.34	mg/l	≤45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd

Checked By

(Mrs. Kadambari Deshmukh)




Authorized Signatory

(Dr. Sandeep Jadhav)

Senior Vice President

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MITCON Consultancy & Engineering Services Ltd.

Environment Management and Engineering Division

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Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2619

Issue Date:28/02/2023

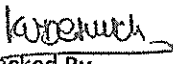
Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines LI=8.680 Ha Site, Dist:- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2619/4
	Name of Sample	Waste water (Mine Discharge Water)
	Sample Details	Mine Discharge Water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

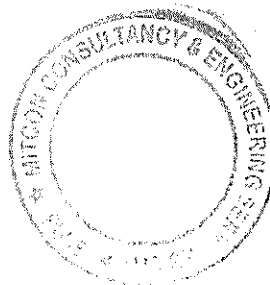
ANALYSIS RESULTS


Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.23	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.8	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	72.2	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	23.4	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	32.2	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	<5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.38	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
(Dr. Sandeep Jadhav)
Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist- Nagpur (M.S)	Reference No.	MITCON/2022-23/February/2351/5
	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near Mine Pit
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/hrs.(Avg)	SSE

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.6	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	18.0	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	73.6	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	36.0	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.9	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.348	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	4.3	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

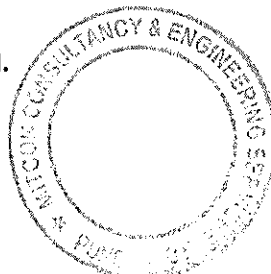
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.


Checked By

(Mrs.Kadambari Deshmukh)





Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2351/6
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near East Boundary Wall
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSE

RESULT

Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	11.2	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	16.8	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	62.2	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	28.5	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.5	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.298	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.8	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS

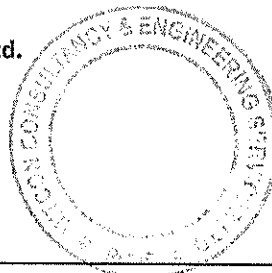
REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs.Kadambari Deshmukh)



(Signature)
Authorized Signatory

Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2351/7
M/s MOIL LIMITED, Safak Manganese Mines L2=16.840Ha Site, Dist- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Air
	Test Location	Near west Boundary Wall
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSE


RESULT

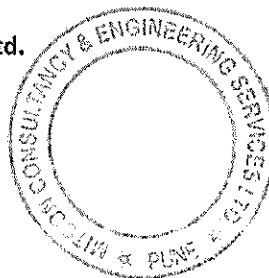
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.6	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	16.3	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	59.0	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	27.8	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.5	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.328	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.9	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS


REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs.Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2351/8
M/s MOIL LIMITED,	Date of Monitoring	20/02/2023
Satak Manganese Mines L2=16.840Ha Site, Dist:- Nagpur (M.S).	Type of Monitoring	Ambient Air
	Test Location	South Boundary wall
	Monitoring Done By	MITCON
	Date of Analysis	22/02/2023

OBSERVATION

Ambient Temp. °C	Dry Bulb Temp. °C	Wet Bulb Temp. °C	Relative Humidity % RH	Sampling Duration In Min	Rainfall (mm)	Wind Velocity	Wind Direction
33	33	22	18	1440	0.0	10.0 km/ hrs.(Avg)	SSE


RESULT

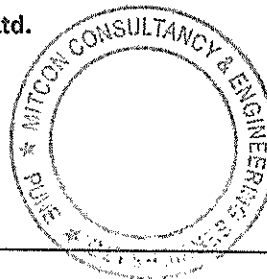
Sr. No.	Description	Unit	Results	CPCB standard	Test Method
01	Sulphur Dioxide (SO ₂)	µg/M ³	12.0	≤80	IS 5182(Part 2)
02	Oxides of Nitrogen (NO ₂)	µg/M ³	15.5	≤ 80	IS 5182(Part 6)
03	Particulate Matter PM ₁₀ micron	µg/M ³	58.8	≤ 100	IS 5182 (Part 23)
04	Particulate Matter PM _{2.5} micron	µg/M ³	24.6	≤ 60	USEPA 40 CFRCH
05	Ozone (O ₃)	µg/M ³	3.3	≤ 100	IS 5182
06	Lead (Pb)	µg/M ³	BDL	≤ 1.0	APHA - AAS
07	Carbon Monoxide (CO)	mg/M ³	0.310	≤ 2.0	IS 5182
08	Ammonia (NH ₃)	µg/M ³	3.8	≤ 400	APHA - 401
09	Benzene (C ₆ H ₆)	µg/M ³	BDL	≤ 5	IS 5182
10	Benzo(a)Pyrene (BaP)	ng/ M ³	BDL	≤ 1	IS 5182
11	Arsenic (As)	ng/ M ³	BDL	≤ 6	APHA - AAS
12	Nickel (Ni)	ng/ M ³	BDL	≤ 20	APHA - AAS


REMARKS/OBSERVATIONS:

- All above results are within National Ambient Air Quality standards.
- BDL: - Below Detection Limit.

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs.Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
Senior vice president

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Quarter January- February- March 2023Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Reference No.	MITCON/2022-23/February/2351/9
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist:- Nagpur (M.S).	Date of Monitoring	20/02/2023
	Type of Monitoring	Ambient Noise
	Monitoring Done By	MITCON


READINGS

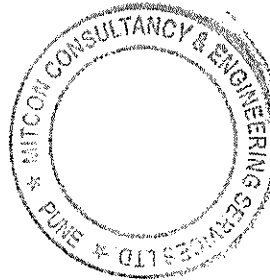
Sr. No.	Test Location	Unit	Readings
01	Near Mine Pit	dB(A)	60.1
02	Near East Boundary Wall	dB(A)	58.8
03	Near West Boundary Wall	dB(A)	55.0
04	Near South Boundary Wall	dB(A)	57.9


REMARKS / OBSERVATIONS:

Limits: The Maharashtra Pollution Control Board has prescribe 75 dB (A) as an upper limit of Noise Level during daytime.

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
Dr. Sandeep Jadhav
(Senior Vice President)

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Quarter January- February- March 2023**Test Report**

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address		Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2351/1	
	Name of Sample	waste Water (Mine Discharge Water)	
	Sample Details	Mine Discharge Water	
	Container Details	1 lit plastic can	
	Sample Collected By	MITCON	
	Method of sampling	IS 3025(Part I)	
	Sample Collected On	20/02/2023	
	Date of Sample Receipt	22/02/2023	
	Analysis Start Date	22/02/2023	
	End Date of Analysis	28/02/2023	

ANALYSIS RESULTS

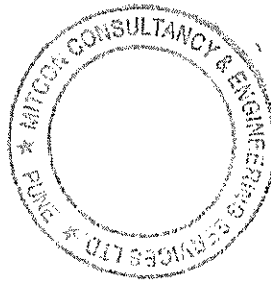
Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.23	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.5	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	62.2	mg/l	250	APHA 5220 C,5-20 to 5-21 23rd Ed 2017
04	Biochemical Oxygen	20.4	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	25.0	mg/l	100	APHA 2540 D,2-70 to 2-71 23rd Ed 2017
06	Oil and grease	<5	mg/l	10	APHA 5520 B,5-42 to 5-43 23rd Ed 2017
07	Manganese	0.36	mg/l	2	APHA 3111 B,3-18 to 3-21 23rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

(Mrs. Kadambari Deshmukh)



(Signature)
Authorized Signatory

(Dr. Sandeep Jadhav)
Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023


Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist:- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2351/2
	Name of Sample	Waste water
	Sample Details	Mine Pit Water
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
End Date of Analysis	28/02/2023	

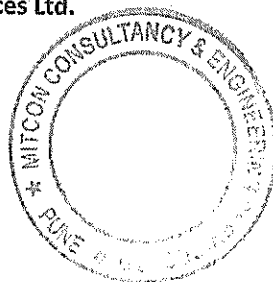
ANALYSIS RESULTS


Sr. No.	Characteristic	Results	Unit	Permissible Limit as per Consent Condition	Test Methods
01	pH at 25°C	7.32	-	5.5 to 9.0	APHA 4500 H+ A, 4-95, 23rd Ed. 2017
02	Dissolved Oxygen	3.7	mg/l	--	IS: 3025 Part 38
03	Chemical Oxygen Demand	71.2	mg/l	250	APHA 5220 C,5-20 to 5-21 23 rd Ed 2017
04	Biochemical Oxygen	21.0	mg/l	30	IS :3025 (Part 44)
05	Total suspended solids	30.3	mg/l	100	APHA 2540 D,2-70 to 2-71 23 rd Ed 2017
06	Oil and grease	< 5	mg/l	10	APHA 5520 B,5-42 to 5-43 23 rd Ed 2017
07	Manganese	0.41	mg/l	2	APHA 3111 B,3-18 to 3-21 23 rd Ed 2017

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.


Checked By
(Mrs. Kadambari Deshmukh)




Authorized Signatory
(Dr. Sandeep Jadhav)
Senior Vice President

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Format No. EME/LAB/Format 7.8/TR

Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2351/3
	Name of Sample	Ground water
	Sample Details	Hiwra Village Bore well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

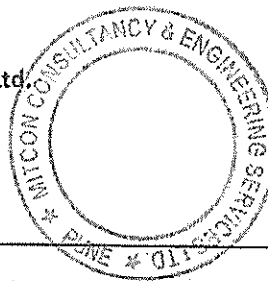
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.22	-	6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.0	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	240.4	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	115.34	mg/l	≤ 200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	42.10	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	21.14	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	108.14	Mg/l	< 200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	< 1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	42.56	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	13.37	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	5.57	mg/l	≤ 45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Agreeable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Checked By
Kadambari

(Mrs. Kadambari Deshmukh)



(Signature)

Authorized Signatory
(Dr. Sandeep Jadhav)
Senior Vice President

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Quarter January- February- March 2023

Test Report

Report Number : MITCON/2022-23/February/2351

Issue Date:28/02/2023

Client's Name & Address	Sample Details	
M/s MOIL LIMITED, Satak Manganese Mines L2=16.840Ha Site, Dist:- Nagpur (M.S)	Sample Code	MITCON/2022-23/February/2351/4
	Name of Sample	Ground Water
	Sample Details	Bankuri Village Bore well
	Container Details	1 lit plastic can
	Sample Collected By	MITCON
	Method of sampling	IS 3025(Part I)
	Sample Collected On	20/02/2023
	Date of Sample Receipt	22/02/2023
	Analysis Start Date	22/02/2023
	End Date of Analysis	28/02/2023

ANALYSIS RESULTS

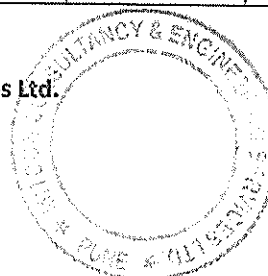
Sr. No.	Parameters	Results	Unit	Limits as per IS 10500:2012	Test Methods
01	pH at 25C	7.20		6.5 to 8.5	APHA 4500 H+, A, 4-95, 23rd Ed 2017
02	Total suspended solids	10.3	mg/l	N.S	APHA 2540 D, 2-70 to 2-71 23rd ed 2017
03	Turbidity	< 1	NTU	≤ 1	IS: 3025 Part-10 (R.A : 2002)
04	Total Dissolved Solids	280.4	mg/l	≤ 500	APHA 2540 C, 2-69 to 2-70, 23rd Ed 2017
05	Total Hardness as CaCO3	130.42	mg/l	≤200	APHA 2340 C, 2-48 to 2-50, 23rd Ed 2017
06	Calcium as Ca	40.23	mg/l	≤ 75	APHA 3500 Ca B, 3-69 to 3-70, 23rd Ed. 2017
07	Magnesium as Mg	17.25	mg/l	≤ 30	APHA 3500 Mg B, 3-86, 23rd Ed. 2017
08	Manganese as mn	< 0.1	mg/l	< 0.1	APHA 3111 B, 3-18 to 3-21 23rd Ed. 2017
09	Total Alkalinity as CaCO3	124.16	Mg/l	<200	APHA 2320 B, 2-37 to 2-39 23rd Ed 2017
10	Fluoride as F	< 0.1	Mg/l	<1	APHA 4500 F- D 4-90 to 4-91 23rd Ed 2017
11	Chloride as Cl	52.12	mg/l	≤ 250	APHA 4500 Cl, B, 4-75 to 4-76, 23rd Ed 2017
12	Sulphate as SO4	20.12	mg/l	≤ 200	APHA 4500 -SO4- -E, 4-199 TO 4-200, 23rd Ed 2017
13	Iron as Fe	< 0.05	mg/l	≤ 0.3	APHA 3111 B, 3-18 TO 3-21, 23rd Ed 2017 (using AAS)
14	Nitrate as NO3	2.52	mg/l	≤45	APHA 4500 NO3-B, 4-127 23rd Ed 2017
15	E.coli	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
16	Total Coliform	Absent	MPN/100ml	Absent	IS: 1622 (R.A : 2014)
17	colour	< 5	HZ	≤ 5	IS: 3025 Part-4 (Rev.1, RA 2012)
18	odour	Aggreable	Agreeable	Agreeable	IS: 3025 Part-5 (Rev.1, RA 2012)

REMARKS / OBSERVATIONS:

For MITCON Consultancy & Engineering Services Ltd.

Kadambari
Checked By

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(Signature)

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Senior Vice President

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