



**HSE Department**  
Oil India Limited  
Duliajan, Dibrugarh, 786602, Assam  
Phone : 0374-2800542  
Email: [safety@oilindia.in](mailto:safety@oilindia.in)

संदर्भ सं./Ref. No.: S&E/E/43C-1/52

दिनांक/Date: 11.01.2024

<b>From</b>	:	Chief General Manager (HSE) I/C
<b>To</b>	:	Deputy Director General of Forests (Central), Sub Office, Guwahati (under Regional Office, Shillong), 4th Floor, Housefed Building, Rukminigaon, Guwahati-781022. (Email : <a href="mailto:iro.guwahati-mefcc@gov.in">iro.guwahati-mefcc@gov.in</a> , <a href="mailto:iro.moefcc.ghy@gmail.com">iro.moefcc.ghy@gmail.com</a> )
<b>Subject</b>	:	Submission of Half-yearly (April 2023 to September 2023) compliance reports of the conditions stipulated in the Environment Clearance (EC) granted to Oil India Limited.

Sir,

Reference to above subject, please find enclosed herewith the Half-yearly (April 2023 to September 2023) compliance reports of the conditions stipulated in the Environment Clearance (EC) granted to Oil India Limited. List of the EC are tabulated below:

S.No	EC Identification No/File No.	Name of the EC proposal
1.	F. No. J-11011/413/2008-IA II (I) dated 24.01.2011	OCS Bhogpara.
2.	F. No. J-11011/1251/2007-IA II (I) dated 01.11.2011	Exploratory Drilling of 01 (One) well at Doomdooma-Pengry Area, District Tinsukia, Assam.
3.	F. No. J-11011/682/2008-IA II (I) dated 17.06.2013	Expansion of Gas field Development in Tengakhat-Naharkatia-Jorajan area and Doomdooma Pengry area, Assam by M/s Oil India Ltd.
4.	F. No. J-11011/116/2018-IA II (I) dated 07.01.2020	Onshore Oil & Gas Exploration & Development Drilling and Production in Ningru Oil & Gas Field in Districts Changlang and Namsai for Ningru PML Block (Arunachal Pradesh)
5.	F. No. J-11011/1260/2007-IA II (I) dated 09.04.2020	Onshore Oil & Gas Development Drilling and Production in Mechaki Area covering Mechaki, Mechaki Extension, Baghjan and Tinsukia Extension PMLs on District Tinsukia (Assam).
6.	F. No. J-11011/150/2016- IA II (I) dated 11.05.2020	Extension Drilling & Testing of Hydrocarbons at 7 (seven) Locations under Dibru-Saikhowa National Park Area, North-West of Baghjan PML, District Tinsukia, Assam.
7.	F. No. J-11011/1253/2007-IA II (I) dated 28.12.2020	Onshore Oil & Gas development drilling and production by M/S Oil India Ltd in Dibrugarh district under Dibrugarh, Chabua, Higrijan and Tinsukia PMLs. (Dibrugarh- Bhogpara)
8.	F. No. J-11011/375/2016-IA II (I)	Onshore Oil & Gas Development Drilling and




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	dated 28.12.2020	Production (179 wells and 9 Production Installations) in North Hapjan – Tinsukia – Dhola area under Tinsukia district, Assam.
9.	F. No. J-11011/35/2018-IA II (I) dated 26.02.2021	Onshore Oil & Gas development drilling and production by M/S Oil India Ltd. Located in Khagorijan Oil & Gas Field in Dibrugarh & Tinsukia District under Tinsukia PML, Tinsukia Extension PML and Chabua PML District: Dibrugarh, Assam
10.	F. No. J-11011/186/2016-IA II (I) dated 03.03.2021	Onshore Oil & Gas development drilling and production in Borhat-Titlagarh area, Dibrugarh, Sibsagar and Charaideo Districts under Sapkaintb, Borhat, Moran Extension and Doomdooma PMLs.
11.	EC22A002AS110311 F. No. J-11011/156/2017-IA II (I) dated 28.11.2022	Oil & Gas development drilling and production (16 exploratory, 73 developmental drilling wells and 9 Production Installations) in Moran Area under Dibrugarh, Sibsagar and Charaideo districts, Assam.
12.	EC23A002AS125690 F. No. J-11011/1254/2007-IA II (I) dated 13.01.2023	Oil & Gas development drilling and production (68 developmental drilling wells and 9 Production Installations) in Khowang Shalmari Area under Dibrugarh, Sibsagar districts, Assam.
13.	EC23A002AS188131 F.No J-11011/1257/2007- IA II (I) dated 17.04.2023	Onshore Oil & Gas development drilling and production (167 wells and 7 production Installations) in Tengakhat-Kathaloni-Dikom (TKD) under Dibrugarh district, Assam.
14.	EC23A002AS198872 F. No. J-11011/388/2016-IA II (I) dated 31.07.2023	Onshore Oil & Gas development drilling (67 wells) in Jorajan Area under Dibrugarh, Charaideo and Tinsukia districts, Assam.
15.	EC23A002AS146942 F.No. J-11011/546/2017-IA(I) dated 20.09.2023	Onshore Oil & Gas development drilling and production (294 wells and 2 Production Installations) in Naharkatiya-Deohal-Bogapani-Nagajan (NDBN) area under Dibrugarh & Tinsukia districts, Assam.

This is for your kind information please.

Thanking you.

  
(Rajendra Singh Garbajal)  
**Chief General Manager (HSE) / C**  
**Nodal Officer (EC, FC, NBWL)**  
**For Resident Chief Executive**





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Duliajan, Dibrugarh, 786602, Assam  
Phone : 0374-2800542  
Email: [safety@oilindia.in](mailto:safety@oilindia.in)

Encl: As above

Copy:

1. Director, Monitoring Cell, MoEF, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003.
2. Zonal Office, Central Pollution Control Board, "TUM-SIR", Lower Motinagar, Near Fire Brigade Headquarter, Shillong-793014.
3. Chairman, Assam Pollution Control Board, Bamunimaidan, Guwahati-781021, Assam.
4. Chairman, Arunachal Pradesh State Pollution Control Board, Office of the Principal Chief and Secretary (E&F) Conservator of Forests, Govt. of Arunachal Pradesh, Itanagar-791111, Arunachal Pradesh.

*Safety*  
12/07/2024  
राजेंद्र सिंह गर्वाल  
मुख्य महासंचालक (एचएसई) - विभागाध्यक्ष  
नोडल अधिकारी (ईसी/एफसी/एनसी/एचएसई)  
ऑयल इंडिया लिमिटेड

**STATUS OF COMPLIANCE OF EC CONDITIONS**

**Installation: FGS-CHABUA**

**Period: 01/04/2023-30/09/2023**

**EC No: F. No J-11011/682/2008-I A II(I) Dated 17.06.2013**

<b>A. Specific Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	Prior clearance under the Wildlife (Protection) Act, 1972, should be obtained from the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of Eco sensitive areas (Dehing Patkai WLS, Bherjan-Borajan-Podumoni WLS and Dibru-Saikhowa National Park).	NBWL clearance received vide letter No. WL/FG-35/Standing Committee NBWL dated 09.10.2014 & copy enclosed.
ii	No facility shall be developed in forest land.	Complied
iii	Adequate buffer zone around the oil and gas facilities, as may be required as per OISD or other statutory requirements.	Complied
iv	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.	Complied
v	Regular ambient air quality monitoring of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , VOC <sub>s</sub> and HC (Methane and Non-methane) shall be monitored and displayed at a convenient location near the main gate of the company and at important public places. The location and results of existing monitoring stations should be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum 3 ground level concentration and downwind direction of wind. If required, additional stations should be set up. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.
vi	Regular monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Shillong, CPCB and Assam Pollution Control Board.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.

		Online Fire & Gas Detection System is also installed in this station.
vii	Vapor recovery system shall be installed to prevent leakage of vapor from tank/ vessels / processing and filling areas to ensure no hydrocarbon vapors are released unchecked.	Not Applicable Only 1 small test condensate gauge tank (2x16m <sup>3</sup> ) is installed. Possibility of vapour leakage not seen.
viii	Total fresh water requirement from ground water source shall not exceed 18 m <sup>3</sup> /day per GCS, 17 m <sup>3</sup> /day per FGS and around 15 m <sup>3</sup> /day per CGGS & OTP and prior permission shall be obtained from the CGWA/SGWA.	Complied. Water consumption is within the prescribed limit.
ix	The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted	Complied
x	Produced water/wastewater separated during processing in GCSs/FGSs/CGGS shall be treated in efficient Effluent Treatment Plants and then routed to the nearby oil collecting station for injection into underground structures at depth between 1000m to 1500 m. Water quality of treated effluent shall conform to CPCB standards. No effluent shall be discharged outside the premises of facilities	The installation has an Effluent Treatment Plant to maintain treated water quality as per CPCB norms. No effluent is discharged outside the premises of the installation.
xi	Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. should be followed. Company shall ensure no oil spillage occur during loading / unloading of petroleum products.	Complied
xii	The project authorities should strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste should be properly treated and disposed off in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008.	Complied
xiii	Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	Complied DGMS approval available. On-site and Off-site Disaster Management Plans available and implemented.

xiv	The company shall obtain all requisite clearances for fire safety and explosives and should comply with the stipulation made by the respective authorities.	Complied
xv	All storage tanks should be provided with design features based on applicable OISD standards.	Complied
xvi	No change in the storage capacity and other facilities should be made without getting proper approval from the Ministry.	Will be complied
xvii	Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.	Not Applicable Only 1 small test condensate gauge tank (2x16m3) is installed.
xviii	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.	Complied
xix	Bottom oil sludge should be handled, stored and disposed as per CPCB/ MoEF guidelines. An action plan in this regard including bioremediation should be submitted to the Ministry and its Regional Office at Shillong within 3 months of issue of the letter.	Secured, covered, impermeable sludge storage facility is already available and has already been intimated to MoEF.
xx	Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.	Complied
xxi	Green belt should be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.	Being complied. Green belt is being developed.
xxii	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 23rd August, 2011, 25th August, 2011 and 26th August, 2011 for the project shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Shillong.	Complied
xxiii	At least 5 % of the total cost of the project shall be earmarked towards corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.	The CSR Policy of the company is already in place and the same is being implemented in time bound phased manner as per government directive.
xxiv	Company shall prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system measures to be taken for protection. One set of environmental manuals shall be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	Complied

xxv	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	Complied
xxvi	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Presently Not Applicable

<b>B. General Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	Complied
ii	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Will be complied
iii	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Complied
iv	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Complied
v	A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Being Complied
vi	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for	Being Complied

	environment management/ pollution control measures shall not be diverted for any other purpose.	
vii	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Complied Monitored data enclosed.
viii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied
ix	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, HC (Methane & Non-methane), VOC <sub>s</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied Compliance status including monitored data is regularly uploaded in company's website and sent to concerned government authorities. Monitored data is also enclosed herewith.
x	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The Regional Office of this Ministry / CPCB / MPPCB shall monitor the stipulated conditions.	Complied Monitored data enclosed.
xi	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Complied
xii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the PCB, Assam and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.



	widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	
xiii	Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. Same shall be forwarded to the Regional office.	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.




(Siddharth Ojah)  
Dy.CEP-CA & MSO-Central Asset




### Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2023-24/0299			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 30.05.2023			
		Sample Description : Ambient Air			
		Sample Number : MSKGI./R/D/2023-24/05/01176			
Ref. No.:W.O. NO.- 8125981 of Contract No. 6116895		Sampling Location : FGGs CHABUA			
Date of Sampling		Sample Received Date		Analysis Start Date	
24.04.2023		27.04.2023		27.04.2023	
				Analysis Complete Date	
				04.05.2023	
GPS Reading : N 27°09'40" , E 94°56'04"					
Environmental Conditions During Sampling & Transport Condition :Temperature : 33°C, Rain fall : NO					
<b>Analysis Result</b>					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1	Particulate Matter ( PM <sub>10</sub> )	IS : 5182 (Part-23)-2006	(µg/m <sup>3</sup> )	72.8	100
2	Particulate Matter ( PM <sub>2.5</sub> )	IS : 5182 (Part-24)	(µg/m <sup>3</sup> )	35.7	60
3	Sulphur Dioxide ( SO <sub>2</sub> )	IS : 5182 (Part-2)-2001	(µg/m <sup>3</sup> )	8.3	80
4	Nitrogen Dioxide ( NO <sub>2</sub> )	IS : 5182 (Part-6)-2006	(µg/m <sup>3</sup> )	24.3	80
5	Carbon Monoxide ( CO )	IS 5182 : (Part-10) :1999	(mg/m <sup>3</sup> )	0.82	2
6	Ozone ( O <sub>3</sub> )	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m <sup>3</sup> )	25.1	180
7	Ammonia ( NH <sub>3</sub> )	IS 5182 (Part 25) : 2018	(µg/m <sup>3</sup> )	12.5	400
8	Lead ( Pb )	USEPA IO-3.4	(µg/m <sup>3</sup> )	<0.01	1
9	Nickel ( Ni )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<0.5	20
10	Arsenic ( As )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<1.0	6
11	Benzene ( C <sub>6</sub> H <sub>6</sub> )	IS 5182 : (Part 11) :2006	(µg/m <sup>3</sup> )	<4.2	5
12	Benzo(a)Pyrene ( BaP )	IS 5182 : (Part 12) :2004	(ng/m <sup>3</sup> )	<0.5	1
13	Mercury ( Hg )	USEPA IO-5.0	(µg/m <sup>3</sup> )	<0.002	...
14	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	2.57	...
15	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	...
16	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	2.57	...
17	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m <sup>3</sup> )	<4.2	...
Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality					

Analyzed By:


Signature :   
Name : Mr. Dhirubajyoti Das  
Designation : Trainee Chemist

Prepared By:

Signature :   
Name : Miss Neeha Sarmah  
Designation : Office Assistant

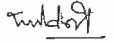
Authorized Signatory

For Mitra S.K. Private Limited

Signature :   
Name : Mr. Rajib Roy  
Designation : Branch Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Shrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016. West Bengal, India.  
Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008  
Email : info@mitrask.com. Website: www.mitrask.com

  
Approved by  
Uttam Proadhan

Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Duliajan, Assam

## STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2023-24/1455
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 10.08.2023
		Nature of Sample	: Stack Emission
		Sample Mark	: FGGS CHABUA
		Sample Number	: MSKGL/ED/2023-24/07/01096
Ref. No.:W.O. NO.- 8125981 of Contract No. 6116895			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
14.06.2023	17.06.2023	17.06.2023	24.06.2023

### ANALYSIS RESULT

<b>A.</b>	<b>General information about stack :</b>	: GENSET		
1.	Stack connected to	: NIL		
2.	Emission due to	: HSD		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: 618 KVA		
<b>B.</b>	<b>Physical characteristics of stack :</b>			
1.	Height of the stack from ground level	: 8.5344 m		
2.	Diameter of the stack at sampling point	: 0.0381 m		
3.	Area of Stack	: 0.00145 m <sup>2</sup>		
<b>C.</b>	<b>Analysis/Characteristic of stack:</b>			
	1. Fuel used : NATURAL GAS			
<b>D.</b>	<b>Result of sampling &amp; analysis of gaseous emission</b>	<b>Result</b>	<b>Limit as per CPCB</b>	<b>Method</b>
1.	Temperature of emission (°C)	176	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	19.6	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm <sup>3</sup> /hr)	68	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	14.2	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (g/kW-hr)	0.647	≤ 3.5	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.6	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm <sup>3</sup> )	30.5	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide & Hydrocarbons (g/kW-hr)	0.751	≤ 4.0	USEPA Part-7, 12/03/1996 & USEPA 18 -25.09.1996
10.	Concentration of Lead (mg/Nm <sup>3</sup> )	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (g/kW-hr)	0.178	≤ 0.2	USEPA Part-17, 16/08/1996
<b>E.</b>	<b>Pollution control device :</b>	<b>Remarks: Nil</b>		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Signature

Name : Mr. Dipankar Mazumdar

Designation : Executive Chemist

Prepared By:

Signature

Name : Miss Neeha Sarmah

Designation : Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature

Name : Mr. Rajib Roy

Designation : Branch Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Shrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016. West Bengal, India.

Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008

Email : info@mitrask.com. Website: www.mitrask.com


  
 Approved by

Uttam Prodhhan

Suptdg. Research Scientist, R&amp;D Dept.,

Oil India Ltd., Duliajan, Assam

**FORM 3**

[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]

**FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES**

1. Name and address of the facility: FGGs Chabua, Village : Udalguri, Dist.- Dibrugarh,
2. Date of issuance of authorisation and its reference number :
3. Description of hazardous and other wastes handled (Generated or Received)

Date	Type of waste with category as per Schedules I, II and III of these rules	Total quantity (Metric Tonnes)	Method of Storage	Destined to or received from
01.04.2023 to 30.09.2023	5.1 Used/spent oil	0.520 MT	In iron drum/barrel	To authorised re-cycler

\* Fill up above table separately for indigenous and imported waste.

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utiliser:
5. Date of environmental monitoring (as per authorisation or guidelines of Central Pollution Control Board):

Date : 06.09.2023

Place : Chabua

  
(Manoj Gogoi)  
Signature of occupier

নূপাল সৌন্দর্য/নূপাল সৌন্দর্য  
স্থাপনা প্রबंधक / Installation Manager  
एफ.जी.डी.एन. चातुवा / EG S.S.Chabua  
केन्द्रीय संपत्ति / CENTRAL ASSET  
ओयल एंड गैस लिमिटेड, नुलियाजान  
Oil India Limited, Nulajan





ऑयल इंडिया लिमिटेड  
(भारत सरकार का सत्यान) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliajan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)

CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633.  
Email : chemical@oilindia.in)

For internal use only

Ref.no.: Chem/Ana/DW/1686/DJN/23

Date: 27.09.2023

Asset Manager - Central Asset  
Attn.: Mrinal Gogoi, IM-Chabua FGS

### Sub:- WTP OUTLET WATER SAMPLE ANALYSIS REPORT OF CHABUA FGS

Ref.No. :- CA/CBA-FGS/2023/47,

Date: 25.09.2023

Reference above please find below the test results of the WTP Outlet water sample forwarded to us from your end for laboratory testing.


Characteristics	Units	Acceptable limit as per (IS 10500: 2012) Second Revision	Test Results	Test method/ Instrument used
Odour	-	Agreeable	Agreeable	Visual
Turbidity	NTU	#5.0 (Max)	0.92	Turbidity meter
pH	-	6.5 -8.5	6.5	Metrohm pH Meter
Alkalinity as CaCO <sub>3</sub>	mg/l	200(Max)	80	Titration with HCl
Iron as Fe <sup>++</sup>	mg/l	0.3(Max)	Nil	UV-vis Spectrophotometer
Chloride (as Cl)	mg/l	250 ( Max)	8	Titration with silver nitrate
Total Hardness as CaCO <sub>3</sub>	mg/l	200 ( Max)	58	Titration with EDTA
Total Dissolved Solids	mg/l	500 ( Max)	84	Hach Water Checker
Mineral Oil	mg/l	0.5( Max)	Nil	Horiba oil content analyser

#### Sample details:-

The above WTP Outlet water sample was collected by Central Asset from Chabua FGS on 25.09.2023 and was received at Analytical & Environmental Laboratory on 25.09.2023 for necessary testing.

*Note: Ref.to request by FE deptt.vide letter no. FE/W.1.9/357/18 dated 27/04/2018, the turbidity of water sample(s) is measured as per IS:10500:2012 (Second revision) where permissible limit is set at 5.0 NTU (instead of 1.0 NTU) in absence of alternate source.*

Tested by : BU/BD

  
Gita Rani Baishya  
Dy. Chief Chemist (Lab)  
For GM-Chemical (Lab and P&A)  
Copy : Analytical & Environmental Sec.file.

Chemlab/Ana/Report/Water/03



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सत्यान) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliajan, Assam

## CHEMICAL LABORATORY

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CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,  
Email : chemical@oilindia.in)

For internal use only

Ref. No.: Chem/Ana/Misc/1688/DJN/23

Date: 27.09.2023

Asset Manager - Cental Asset

Attn: - Mrinal Gogoi, IM-Chabua FGS

### SUB: POND WATER SAMPLE ANALYSIS REPORT OF CHABUA FGS

Ref. No.: CA/CBA-FGS/2023/49,

Dated: 25.09.2023

Please find below the test results of the Pond water sample forwarded to us from your end for laboratory testing.

Characteristics	Unit	Desirable limit as per IS: 2296-1982 for Inland surface waters	Test Results	Test Method /Instrument used
		For fish culture		
pH	-	6.5 - 8.5	6.9	Metrohm pH meter
Dissolved Oxygen	mg/l	4.0 (Min)	6.7	Hach Dissolved Oxygen meter
Oil & grease	mg/l	0.1(Max)	Nil	Horiba oil content Analyser
Electrical Conductance at 25°C	mhos/cm	1000x10 <sup>-6</sup> (max)	135.0x10 <sup>-6</sup>	Metrohm Conductivity meter

#### Sample Details :-

The above Pond water sample was collected from Chabua FGS on 25.09.2023 and received at Analytical & Envionmental Lab. on 25.09.2023 for necessary testing.

Tested by:- WR/PJK

Gita Rani Baishya

Dy. Chief Chemist (Lab)

For GM - Chemical (Lab and P&A)

Copy : Analytical & Environmental sec. file

ChemLab/ Ana/ Report /Water /04



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सस्यन) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliagan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)  
CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,  
Email : chemical@oilindia.in)

For internal use only

Ref.no.: Chem/Ana/DW/1685/DJN/23

Date: 27.09.2023

Asset Manager - Central Asset  
Attn.: Mrinal Gogoi, IM-Chabua FGS

### Sub:- DRINKING WATER SAMPLE ANALYSIS REPORT OF CHABUA FGS

Ref.No. :- CA/CBA-FGS/2023/46,

Date: 25.09.2023

Reference above please find below the test results of the drinking water sample forwarded to us from your end for laboratory testing.

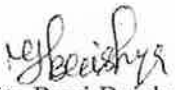
Characteristics	Units	Acceptable limit as per (IS 10500: 2012) Second Revision	Test Results	Test method/ Instrument used
Odour	-	Agreeable	Agreeable	Visual
Turbidity	NTU	#5.0 (Max)	0.96	Turbidity meter
pH	-	6.5 -8.5	6.5	Metrohm pH Meter
Alkalinity as CaCO <sub>3</sub>	mg/l	200(Max)	80	Titration with HCl
Iron as Fe <sup>++</sup>	mg/l	0.3(Max)	Nil	UV-vis Spectrophotometer
Chloride (as Cl <sup>-</sup> )	mg/l	250 ( Max)	8	Titration with silver nitrate
Total Hardness as CaCO <sub>3</sub>	mg/l	200 ( Max)	64	Titration with EDTA
Total Dissolved Solids	mg/l	500 ( Max)	107	Hach Water Checker
Mineral Oil	mg/l	0.5( Max)	Nil	Horiba oil content analyser

#### Sample details:-

The above drinking water sample was collected by Central Asset from Chabua FGS on 25.09.2023 and was received at Analytical & Environmental Laboratory on 25.09.2023 for necessary testing.

*Note: Ref.to request by FE dept.vide letter no. FE/W.1.9/357/18 dated 27/04/2018, the turbidity of water sample(s) is measured as per IS:10500:2012 (Second revision) where permissible limit is set at 5.0 NTU (instead of 1.0 NTU) in absence of alternate source.*

Tested by : BU/BD

  
Gita Rani Baishya  
Dy. Chief Chemist (Lab)  
For GM-Chemical (Lab and P&A)  
Copy : Analytical & Environmental Sec.file.  
ChemLab/Ana/Report/Water/03



ऑयल इंडिया लिमिटेड

(भारत सरकार का संस्थान) पंजीकृत कार्यालय : दुलियाजान, असम

**Oil India Limited**

(A Government of India Enterprise) Registered Office : Duliajan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)

CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA

(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,

Email : chemical@oilindia.in)

For internal use only

Ref.no.: Chem/Ana/PW/1687/DJN/23

Date: 27.09.2023

Asset Manager - Central Asset

Attn: Mrinal Gogoi, IM - Chabua FGS

### Sub: OWS PIT OUTLET WATER SAMPLE ANALYSIS REPORT

Ref.: CA/CBA-FGS/2023/48,

Dated: 25.09.2023

Reference above, please find below the test results of the OWS pit outlet water sample forwarded from your end to us for laboratory testing.

Characteristics	Unit	Tolerance limit as per State Pollution Control Board of Assam.	Test Results	Test method/ Instrument used
Appearance	-	Clear	Turbid	Visual
pH	-	5.5 - 9.0	7.1	Metrohm pH meter
Chloride (as Cl <sup>-</sup> )	mg/l	600 (max)	10	Titration with silver nitrate
Phenolic compounds	mg/l	1.2 (max)	0.009	UV-vis Spectrophotometer
Sulphate as SO <sub>4</sub> <sup>2-</sup>	mg/l	1000 (max)	2	UV-vis Spectrophotometer
Chromium (as Cr <sup>+6</sup> )	mg/l	0.1 (max)	Nil	UV-vis Spectrophotometer
Total Dissolved Solids	mg/l	2100 (max)	92	Gravimetric method
Suspended Solids	mg/l	100 (max)	26	Gravimetric method
Oil and grease	mg/l	10 (max)	Nil	Horiba oil content analyser

#### Sample details :-

The above OWS pit outlet water sample was collected from FGS Chabua by Central Asset on 25.09.2023 & received at Analytical & Environmental Lab. on 25.09.2023 for necessary testing.

Tested by : WR/PJK

Gita Rani Baishya

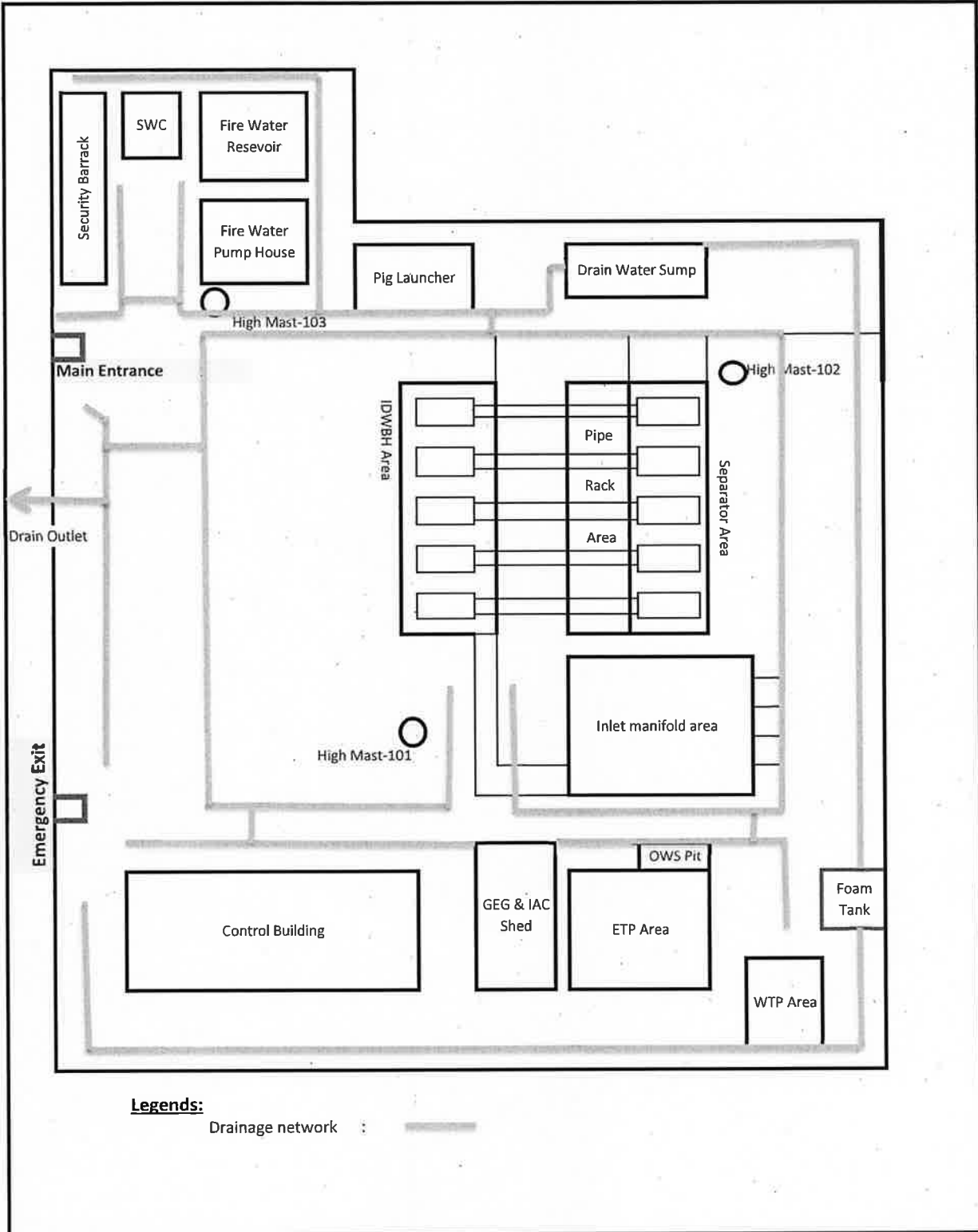
Dy. Chief Chemist (Lab)

For GM - Chemical (Lab and P&A)

Copy : Analytical & Environmental sec. file.



# PLANT LAYOUT WITH DRAIN ARRANGEMENTS FGGS CHABUA



## STATUS OF COMPLIANCE OF EC CONDITIONS

**Installation: GCS-TENGA KHAT**

**Period: 01/04/2023-30/09/2023**

**EC No: F. No J-11011/682/2008-I A II(I) Dated 17.06.2013**

<b>A. Specific Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	Prior clearance under the Wildlife (Protection) Act, 1972, should be obtained from the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of Eco sensitive areas (Dehing Patkai WLS, Bherjan-Borajan-Podumoni WLS and Dibru-Saikhowa National Park).	NBWL clearance received vide letter No. WL/FG-35/Standing Committee NBWL dated 09.10.2014 & copy enclosed.
ii	No facility shall be developed in forest land.	Complied
iii	Adequate buffer zone around the oil and gas facilities, as may be required as per OISD or other statutory requirements.	Complied
iv	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.	Complied. Common flare is used for OCS-Tengakhat and GCS-Tengakhat
v	Regular ambient air quality monitoring of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , VOC <sub>s</sub> and HC (Methane and Non-methane) shall be monitored and displayed at a convenient location near the main gate of the company and at important public places. The location and results of existing monitoring stations should be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum 3 ground level concentration and downwind direction of wind. If required, additional stations should be set up. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.
vi	Regular monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Shillong, CPCB and Assam Pollution Control Board.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.

vii	Vapor recovery system shall be installed to prevent leakage of vapor from tank/ vessels / processing and filling areas to ensure no hydrocarbon vapors are released unchecked.	Not Applicable No hydrocarbon storage facility planned.
viii	Total fresh water requirement from ground water source shall not exceed 18 m <sup>3</sup> /day per GCS, 17 m <sup>3</sup> /day per FGS and around 15 m <sup>3</sup> /day per CGGS & OTP and prior permission shall be obtained from the CGWA/SGWA.	Complied. Water consumption is within the prescribed limit.
ix	The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted	Complied
x	Produced water/wastewater separated during processing in GCSs/FGSs/CGGS shall be treated in efficient Effluent Treatment Plants and then routed to the nearby oil collecting station for injection into underground structures at depth between 1000m to 1500 m. Water quality of treated effluent shall conform to CPCB standards. No effluent shall be discharged outside the premises of facilities	Being complied. Construction of ETP at Tengakhat is in progress where the produced water will be treated to the desired level and then reused for internal purpose.
xi	Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. should be followed. Company shall ensure no oil spillage occur during loading / unloading of petroleum products.	Complied
xii	The project authorities should strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste should be properly treated and disposed off in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008.	Complied
xiii	Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	Complied DGMS approval available. On-site and Off-site Disaster Management Plans available and implemented.
xiv	The company shall obtain all requisite clearances for fire safety and explosives and should comply with the stipulation made by the respective authorities.	Complied
xv	All storage tanks should be provided with design features based on applicable OISD standards.	Not Applicable. No storage tank planned.

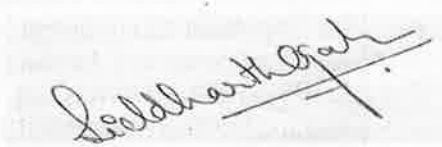
xvi	No change in the storage capacity and other facilities should be made without getting proper approval from the Ministry.	Will be complied
xvii	Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.	Not Applicable Tank farm will not be constructed.
xviii	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.	Complied
xix	Bottom oil sludge should be handled, stored and disposed as per CPCB/ MoEF guidelines. An action plan in this regard including bioremediation should be submitted to the Ministry and its Regional Office at Shillong within 3 months of issue of the letter.	Not Applicable. No tank installation is planned.
xx	Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.	Complied
xxi	Green belt should be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.	Being complied.
xxii	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 23rd August, 2011, 25th August, 2011 and 26th August, 2011 for the project shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Shillong.	Complied
xxiii	At least 5 % of the total cost of the project shall be earmarked towards corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.	The CSR Policy of the company is already in place and the same is being implemented in time bound phased manner as per government directive.
xxiv	Company shall prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system measures to be taken for protection. One set of environmental manuals shall be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	Complied
xxv	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	Complied
xxvi	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form	Presently Not Applicable

	of temporary structures to be removed after the completion of the project.	
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<b>B. General Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	Complied
ii	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Will be complied
iii	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Complied
iv	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Complied
v	A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Being Complied
vi	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Being Complied
vii	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Complied Monitored data enclosed.

viii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied
ix	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, HC (Methane & Non-methane), VOC <sub>s</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied Compliance status including monitored data is regularly uploaded in company's website and sent to concerned government authorities. Monitored data is also enclosed herewith.
x	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The Regional Office of this Ministry / CPCB / MPPCB shall monitor the stipulated conditions.	Complied Monitored data enclosed.
xi	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Complied
xii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the PCB, Assam and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.
xiii	Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of	Complied Copy of newspaper advertisement forwarded with our Compliance Status

commencing the land development work. Same shall be forwarded to the Regional office.	Report submitted in April, 2014.
---	----------------------------------



(Siddharth Ojah)  
Dy.CEP-CA & MSO-Central Asset



### Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2023-24/1529			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 25.08.2023			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2023-24/08/00583			
		Sampling Location : GCS TENGAHAT			
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895		GPS Reading : N 27°51'38", E 95°42'53"			
Date of Sampling	Sample Received Date	Analysis Start Date		Analysis Complete Date	
17.07.2023	20.07.2023	20.07.2023		27.07.2023	
Enviromental Conditions During Sampling & Transport Condition : Temperature : 32°C, Rain fall : YES					
<b>Analysis Result</b>					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1.	Particulate Matter ( PM <sub>10</sub> )	IS : 5182 (Part-23)-2006	(µg/m <sup>3</sup> )	74.2	100
2.	Particulate Matter ( PM <sub>2.5</sub> )	IS : 5182 (Part-24)	(µg/m <sup>3</sup> )	30.2	60
3.	Sulphur Dioxide ( SO <sub>2</sub> )	IS : 5182 (Part-2)-2001	(µg/m <sup>3</sup> )	7.2	80
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	IS : 5182 (Part-6)-2006	(µg/m <sup>3</sup> )	19.6	80
5.	Carbon Monoxide ( CO )	IS 5182 : (Part-10) :1999	(mg/m <sup>3</sup> )	0.72	2
6.	Ozone ( O <sub>3</sub> )	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m <sup>3</sup> )	21.8	180
7.	Ammonia ( NH <sub>3</sub> )	IS 5182 (Part 25) : 2018	(µg/m <sup>3</sup> )	10.9	400
8.	Lead ( Pb )	USEPA IO-3.4	(µg/m <sup>3</sup> )	<0.01	1
9.	Nickel ( Ni )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<5.0	20
10.	Arsenic ( As )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<1.0	6
11.	Benzene ( C <sub>6</sub> H <sub>6</sub> )	IS 5182 : (Part 11) :2006	(µg/m <sup>3</sup> )	<4.2	5
12.	Benzo(a)Pyrene ( BaP )	IS 5182 : (Part 12) :2004	(ng/m <sup>3</sup> )	<0.5	1
13.	Mercury ( Hg )	USEPA IO-5.0	(µg/m <sup>3</sup> )	<0.002	...
14.	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	1.80	...
15.	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	...
16.	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	1.80	...
17.	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m <sup>3</sup> )	<4.2	...
Limit as per CPCB notification, New Delhi, 18th Nov, 2009, for Ambient air quality					

Analyzed By:

Signature :

Name :

Designation :



Mr. Dipankar Mazumdar

Executive Chemist

Prepared By:

Signature :

Name :

Designation :



Miss Neeha Sarmah

Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation :



Mr. Rajib Roy

Branch Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

**Head Office: Shrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016. West Bengal, India.**
**Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008**
**Email : info@mitrask.com. Website: www.mitrask.com**


 Approved by  
 Uttam Prodhan

 Suptdg. Research Scientist, R&D Dept.,  
 Oil India Ltd., Duliajan, Assam



**FORM 3**

[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]


**FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES**

1. Name and address of the facility: GCS Tengakhat, Village : Tengakhat, Dist.- Dibrugarh,
2. Date of issuance of authorisation and its reference number :
3. Description of hazardous and other wastes handled (Generated or Received)

Date	Type of waste with category as per Schedules I, II and III of these rules	Total quantity (Metric Tonnes)	Method of Storage	Destined to or received from
01.04.2023 to 30.09.2023	5.2 Used/spent oil	1.0 MT	In iron drum/barrel	To authorised re-cycler

\* Fill up above table separately for indigenous and imported waste.

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utiliser:
5. Date of environmental monitoring (as per authorisation or guidelines of Central Pollution Control Board):



Signature of occupier

Installation Manager

Tengakhat GCS

Date : 09.11.2023

Place : Tengakhat





आयल इंडिया लिमिटेड

(भारत सरकार का सस्थान) पंजीकृत कार्यालय : दुलियाजान, असम

**Oil India Limited**

(A Government of India Enterprise) Registered Office : Dulliajan, Assam

CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)

CHEMICAL DEPARTMENT, DULLIAJAN 786 602, ASSAM, INDIA

(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,

Email : chemical@oilindia.in)

For internal use only

Ref. No.: Chem/Ana/DW/570/DJN/43

Date: 08.09.2023

Asset Manager - Central Asset.

Attn. : A.N. Saikia, IM-Tengakhat GCS

**Sub: POT WATER SAMPLE ANALYSIS REPORT OF TKT-GCS**

Ref. No: CA/TKT-GCS/CH-09/2023/05,

dated: 06.09.2023

Reference above, please find below the test results of the pot water sample forwarded to us from your end for laboratory testing:

Characteristics	Unit	Acceptable limit as per Bureau of Indian Standards for Drinking water (IS-10500:2012) Second revision	Test Result	Test method/ Instrument used
Odour	-	Agreeable	Agreeable	Agreeable
pH	-	6.5 to 8.5	6.6	Metrohm pH Meter
Turbidity	NTU	# 5.0(max.)	4.95	Turbidity meter
Chloride (as Cl <sup>-</sup> )	mg/l	250.0 (max.)	51	Titration with silver nitrate
Iron (as Fe <sup>++</sup> )	mg/l	0.3(max.)	0.19	UV-vis Spectrophotometer
Total Hardness (as CaCO <sub>3</sub> )	mg/l	200.0(max.)	114	Titration with EDTA
Alkalinity (as CaCO <sub>3</sub> )	mg/l	200(max.)	100	Titration with hydrochloric acid
Total dissolved solids	mg/l	500 (max.)	97	Hach water checker
Mineral Oil	mg/l	0.5(max.)	Nil	Horiba oil content analyser

**Sample details. :**

The above pot water sample was collected from GCS Tengakhat by Central Asset on 06.09.2023 and received at Analytical & Environmental Laboratory on 06.09.2023 for necessary testing.

# Note- Ref.to request by FE dept.vide letter no. FE/W.1.9/357/18 dated 27/04/2018, the turbidity of water sample(s) is measured as per IS: 10500:2012 (Second revision) where permissible limit is set at 5.0 NTU (instead of 1.0 NTU) in absence of alternate source.

Tested by: SB/LG/BD/BU

Dipjyoti Hazarika

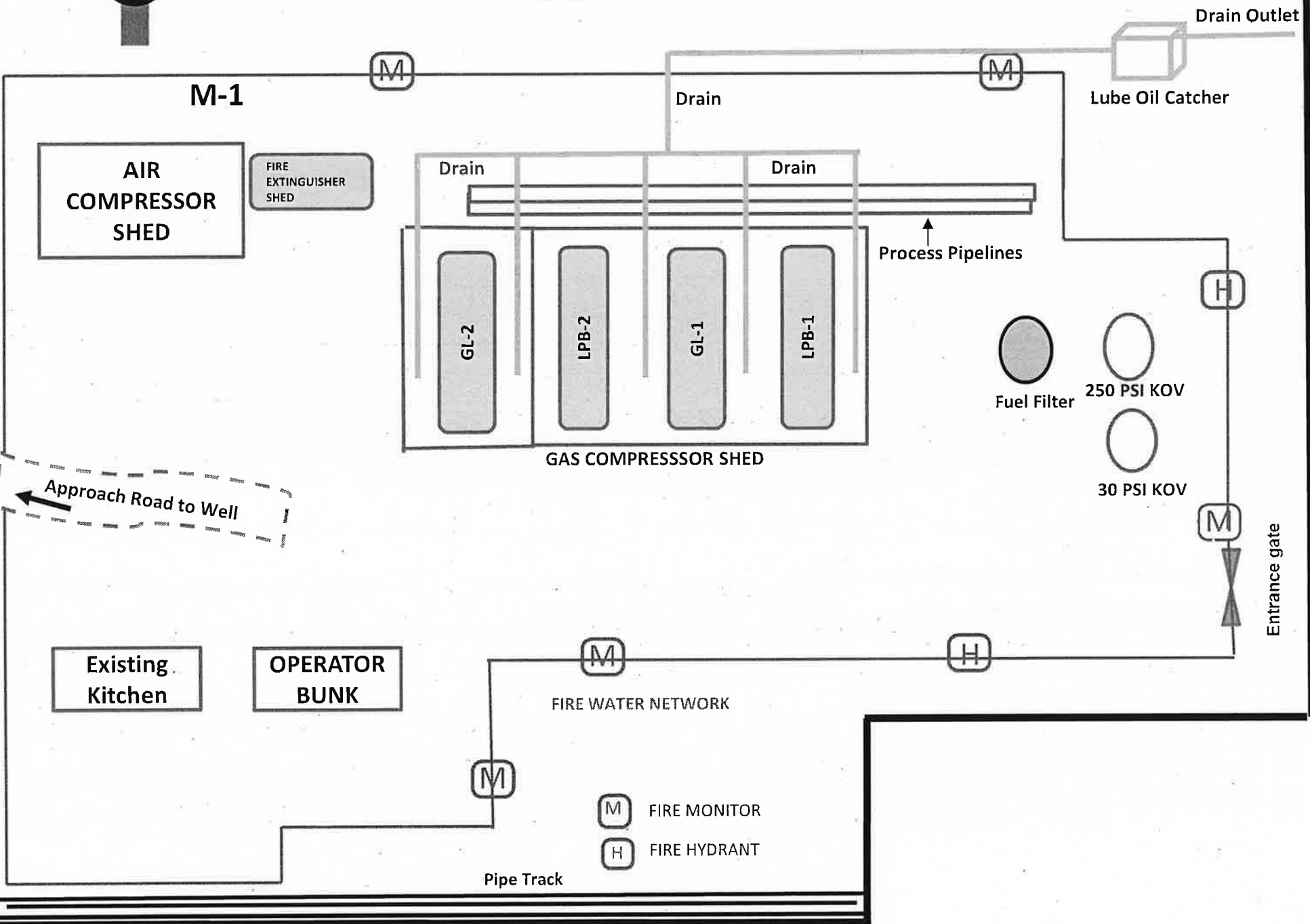
Dy. Chief Chemist (Lab)

For GM-Chemical (Lab and P&A)

Copy : Analytical & Environmental sec. file

ChemLab/Ana/Report/Water/03

# GAS COMPRESSOR STATION TENGAKHAT PLANT LAYOUT



**STATUS OF COMPLIANCE OF EC CONDITIONS**

**Installation: GCS-HEBEDA VILLAGE**

**Period: 01.04.2023 – 30.09.2023**

**EC No: F. No J-11011/682/2008-I A II(I) Dated 17.06.2013**

<b>A. Specific Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	Prior clearance under the Wildlife (Protection) Act, 1972, should be obtained from the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of Eco sensitive areas (Dehing Patkai WLS, Bherjan-Borajan-Podumoni WLS and Dibru-Saikhowa National Park).	NBWL clearance received vide letter No. WL/FG-35/Standing Committee NBWL dated 09.10.2014 & copy enclosed.
ii	No facility shall be developed in forest land.	Complied
iii	Adequate buffer zone around the oil and gas facilities, as may be required as per OISD or other statutory requirements.	Complied
iv	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.	Complied
v	Regular ambient air quality monitoring of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , VOC <sub>s</sub> and HC (Methane and Non-methane) shall be monitored and displayed at a convenient location near the main gate of the company and at important public places. The location and results of existing monitoring stations should be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum 3 ground level concentration and downwind direction of wind. If required, additional stations should be set up. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.
vi	Regular monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Shillong, CPCB and Assam Pollution Control Board.	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed.

		Online Fire & Gas Detection System is also installed in this station.
vii	Vapor recovery system shall be installed to prevent leakage of vapor from tank/ vessels / processing and filling areas to ensure no hydrocarbon vapors are released unchecked.	Complied
viii	Total fresh water requirement from ground water source shall not exceed 18 m <sup>3</sup> /day per GCS, 17 m <sup>3</sup> /day per FGS and around 15 m <sup>3</sup> /day per CGGS & OTP and prior permission shall be obtained from the CGWA/SGWA.	Complied. Water consumption is within the prescribed limit.
ix	The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted	Complied
x	Produced water/wastewater separated during processing in GCSs/FGSs/CGGS shall be treated in efficient Effluent Treatment Plants and then routed to the nearby oil collecting station for injection into underground structures at depth between 1000m to 1500 m. Water quality of treated effluent shall conform to CPCB standards. No effluent shall be discharged outside the premises of facilities	The installation has an Effluent Treatment Plant to maintain treated water quality as per CPCB norms. No effluent is discharged outside the premises of the installation.
xi	Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. should be followed. Company shall ensure no oil spillage occur during loading / unloading of petroleum products.	Complied
xii	The project authorities should strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste should be properly treated and disposed off in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008.	Complied
xiii	Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	Complied DGMS approval available. On-site and Off-site Disaster Management Plans available and implemented.
xiv	The company shall obtain all requisite clearances for fire safety and explosives and should comply with the stipulation made by the respective authorities.	Complied

xv	All storage tanks should be provided with design features based on applicable OISD standards.	Complied
xvi	No change in the storage capacity and other facilities should be made without getting proper approval from the Ministry.	Complied
xvii	Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.	Not Applicable No oil storage tank farm is present at site
xviii	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.	Complied
xix	Bottom oil sludge should be handled, stored and disposed as per CPCB/ MoEF guidelines. An action plan in this regard including bioremediation should be submitted to the Ministry and its Regional Office at Shillong within 3 months of issue of the letter.	Secured, covered, impermeable sludge storage facility is already available
xx	Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.	Complied
xxi	Green belt should be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.	Being complied. Green belt is being developed.
xxii	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 23rd August, 2011, 25th August, 2011 and 26th August, 2011 for the project shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Shillong.	Complied
xxiii	At least 5 % of the total cost of the project shall be earmarked towards corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.	The CSR Policy of the company is already in place and the same is being implemented in time bound phased manner as per government directive.
xxiv	Company shall prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system measures to be taken for protection. One set of environmental manuals shall be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	Complied
xxv	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	Complied
xxvi	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water,	Presently Not Applicable

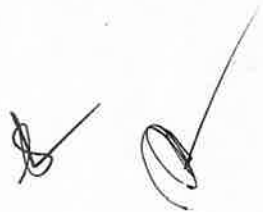
	medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
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<b>B. General Condition</b>		
<b>Sl No.</b>	<b>EC Condition</b>	<b>Compliance status/ Remark</b>
i	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	Complied
ii	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Will be complied
iii	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Complied
iv	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Complied
v	A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Being Complied
vi	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Being Complied
vii	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Complied Monitored data enclosed.

viii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied
ix	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, HC (Methane & Non-methane), VOC <sub>s</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied Compliance status including monitored data is regularly uploaded in company's website and sent to concerned government authorities. Monitored data is also enclosed herewith.
x	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The Regional Office of this Ministry / CPCB / MPPCB shall monitor the stipulated conditions.	Complied Monitored data enclosed.
xi	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Complied
xii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the PCB, Assam and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.




xiii	Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. Same shall be forwarded to the Regional office:	Complied Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.
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Two handwritten signatures in black ink, one on the left and one on the right, both appearing to be initials or short names.


## Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2023-24/1574			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 25.08.2023			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2023-24/09/00456			
		Sampling Location : GCS HEBEDA GAON			
Ref. No.:W.O. NO.- 8125981 of Contract No. 6116895		GPS Reading : N 27°51'38", E 95°42'53"			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date		
26.08.2023	29.08.2023	29.08.2023	05.09.2023		
Environmental Conditions During Sampling & Transport Condition :Temperature : 29°C, Rain fall : NO					
<b>Analysis Result</b>					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1.	Particulate Matter ( PM <sub>10</sub> )	IS : 5182 (Part-23)-2006	(µg/m <sup>3</sup> )	65.1	100
2.	Particulate Matter ( PM <sub>2.5</sub> )	IS : 5182 (Part-24)	(µg/m <sup>3</sup> )	35.1	60
3.	Sulphur Dioxide ( SO <sub>2</sub> )	IS : 5182 (Part-2)-2001	(µg/m <sup>3</sup> )	<6.0	80
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	IS : 5182 (Part-6)-2006	(µg/m <sup>3</sup> )	19.6	80
5.	Carbon Monoxide ( CO )	IS 5182 : (Part-10) :1999	(mg/m <sup>3</sup> )	0.58	2
6.	Ozone ( O <sub>3</sub> )	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m <sup>3</sup> )	<20.0	180
7.	Ammonia ( NH <sub>3</sub> )	IS 5182 (Part 25) : 2018	(µg/m <sup>3</sup> )	<10.0	400
8.	Lead ( Pb )	USEPA IO-3.4	(µg/m <sup>3</sup> )	<0.01	1
9.	Nickel ( Ni )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<5.0	20
10.	Arsenic ( As )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<1.0	6
11.	Benzene ( C <sub>6</sub> H <sub>6</sub> )	IS 5182 : (Part 11) :2006	(µg/m <sup>3</sup> )	<4.2	5
12.	Benzo(a)Pyrene ( BaP )	IS 5182 : (Part 12) :2004	(ng/m <sup>3</sup> )	<0.5	1
13.	Mercury ( Hg )	USEPA IO-5.0	(µg/m <sup>3</sup> )	<0.002	...
14.	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	1.80	...
15.	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	...
16.	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	1.80	...
17.	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m <sup>3</sup> )	<4.2	...
Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality					

Analyzed By:


Signature :   
Name : Mr. Dipankar Mazumdar  
Designation : Executive Chemist

Prepared By:

Signature :   
Name : Miss Neeha Sarmah  
Designation : Office Assistant


Authorized Signatory

For Mitra S.K. Private Limited

Signature :   
Name : Mr. Bisib Roy  
Designation : Branch Manager

- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Shrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016. West Bengal, India.  
Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008  
Email : info@mitrask.com. Website: www.mitrask.com

  
Approved by  
Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Duliajan, Assam



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सत्यान) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliajan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)  
CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,  
Email : chemical@oilindia.in)

For internal use only

Ref. No.: Chem/Ana/DW/1271/DJN/23

Date: 27.07.2023

Asset Manager - Eastern Asset

Attn.: Vishal Singh Jadon, SE (P-E) EA

### Sub: RO DRINKING WATER SAMPLE ANALYSIS REPORT OF HEBEDA GCS

Ref.: Nil,

Dated: 24.07.2023

Reference above, please find below the test results of drinking water sample forwarded to us from your end for laboratory testing:

Characteristics	Unit	Acceptable limit as per Bureau of Indian Standards (IS-10500:2012) Second revision	Test Results		Test method / Instrument used
			Inlet	Outlet	
Odour	-	Agreeable	Agreeable	Agreeable	By sniffing
pH	-	6.5 to 8.5	7.4	7.4	Metrohm pH meter
Turbidity	NTU	# 5.0 (max)	5.86*	0.01	Turbidity meter
Chloride (as Cl <sup>-</sup> )	mg/l	250.0 (max.)	11	10	Titration with Silver nitrate
Total Hardness (as CaCO <sub>3</sub> )	mg/l	200.0(max.)	94	92	Titration with EDTA
Iron (as Fe <sup>++</sup> )	mg/l	0.3(max.)	0.28	0.09	UV-vis Spectrophotometer
Total dissolved solids	mg/l	500 (max.)	117	114	HACH water checker
Alkalinity (as CaCO <sub>3</sub> )	mg/l	200.0(max.)	110	115	Titration with Hydrochloric acid
Mineral Oil	mg/l	0.5(max.)	Nil	Nil	Horiba oil content analyser

**Sample details :-** The drinking water samples were collected from the above mentioned sources of Hebeda GCS by Eastern Asset & received at Analytical & Environmental Laboratory on 25.07.2023.

# Note- Ref.to request by FE deptt.vide letter no. FE/W.1.9/357/18 dated 27/04/2018, the turbidity of water sample(s) is measured as per IS:10500:2012 (Second revision) where permissible limit is set at 5.0 NTU (instead of 1.0 NTU) in absence of alternate source.

Note: \* Not within acceptable limit.

Tested by : PJK/BU

Dipjyoti Hazarika

Dy. Chief Chemist (Lab)

For GM-Chemical (Lab and P&A)

Copy : Analytical & Environmental Sec. file.



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सस्यधन) पंजाकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
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## CHEMICAL LABORATORY

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(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633.  
Email : chemical@oilindia.in)

For internal use only

Ref.no.: Chem/Ana/Misc/1306/DJN/23

Date: 31.07.2023

Asset Manager Eastern Asset

Attn.: Vishal Singh Jadon, SE (P-E), Eastern Asset

### Sub: ETP WATER SAMPLE ANALYSIS REPORT

Ref. no :- Nil,

Dated: 24.07.2023

Reference above, please find below the test results of the ETP samples forwarded to us from your end for laboratory testing.


Characteristics	Units:	Test Results		Test method/Instrument used
		Inlet	Outlet	
Total Dissolved Solids	mg/l	2868	399	Gravimetric method
Oil & Grease	mg/l	13.4	Nil	Horiba oil content analyser
pH	-	5.8	8.3	pH meter
Total Suspended Solid	mg/l	1950	87	Gravimetric method
Carbonate as CO <sub>3</sub> <sup>-</sup>	mg/l	Nil	24	Titration with Hydrochloric acid
Bicarbonate as HCO <sub>3</sub> <sup>-</sup>	mg/l	2440	500	Titration with Hydrochloric acid
Dissolved Oxygen	mg/l	0.3	1.8	Dissolved Oxygen meter
Turbidity	NTU	67.5	6.81	Turbidity meter

#### Sample details:-

The above ETP water samples were collected by Eastern Asset, Digboi from Hebeda GCS and received at Analytical & Environmental Lab. on 28.07.2023.

*Note : Parameters were tested as per requirement of the customer mentioned in the memo.*

Tested by: SB/BD

  
Dipjyoti Hazarika  
Dy. Chief Chemist (Lab.)  
For GM - Chemical (Lab and P&A)  
Copy : Analytical & Environmental Sec.file.

ChemLab/Ana/Report/Water/04

## STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2023-24/1231
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 30.06.2023
		Nature of Sample	: Stack Emission
		Sample Mark	: GCS HEBEDA GAON
		Sample Number	: MSKGL/ED/2023-24/06/01221
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
30.05.2023	02.06.2023	02.06.2023	09.06.2023

### ANALYSIS RESULT

<b>A.</b>	<b>General information about stack :</b>	: GL-1		
1.	Stack connected to	: GAS COMPRESSOR		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: NIL		
<b>B.</b>	<b>Physical characteristics of stack :</b>			
1.	Height of the stack from ground level	: 4.572 m		
2.	Diameter of the stack at sampling point	: 0.0762 m		
3.	Area of Stack	: 0.01823 m <sup>2</sup>		
<b>C.</b>	<b>Analysis/Characteristic of stack:</b>			
	1. Fuel used : NATURAL GAS			
<b>D.</b>	<b>Result of sampling &amp; analysis of gaseous emission</b>	<b>Result</b>	<b>Limit as per CPCB</b>	<b>Method</b>
1.	Temperature of emission (°C)	205	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec.)	24.7	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm <sup>3</sup> /hr)	1017	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.4	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (mg/Nm <sup>3</sup> )	21.7	...	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.6	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm <sup>3</sup> )	21.3	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide (ppmv)	68.5	...	USEPA Part-6, 25/09/1996
10.	Concentration of Lead (mg/Nm <sup>3</sup> )	<0.005	...	USEPA-29, 25/06/1996
11.	Concentration of Particulate matter (mg/Nm <sup>3</sup> )	35.6	...	USEPA Part-17, 16/08/1996
12.	Concentration of Hydrocarbons (ppm)	<0.0003	...	USEPA 18 -25.09.1996
<b>E.</b>	<b>Pollution control device :</b>	<b>Remarks: Nil</b>		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Signature :

Name :

Designation. :

*Dipankar Mazumdar*  
 : Mr. Dipankar Mazumdar  
 : Executive Chemist

Prepared By:

Signature :

Name :

Designation. :

*Necha Sarmah*  
 : Miss Necha Sarmah  
 : Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :

Designation : Branch Manager

*Mr. Rajib Roy*  
 : Mr. Rajib Roy  
 : Branch Manager

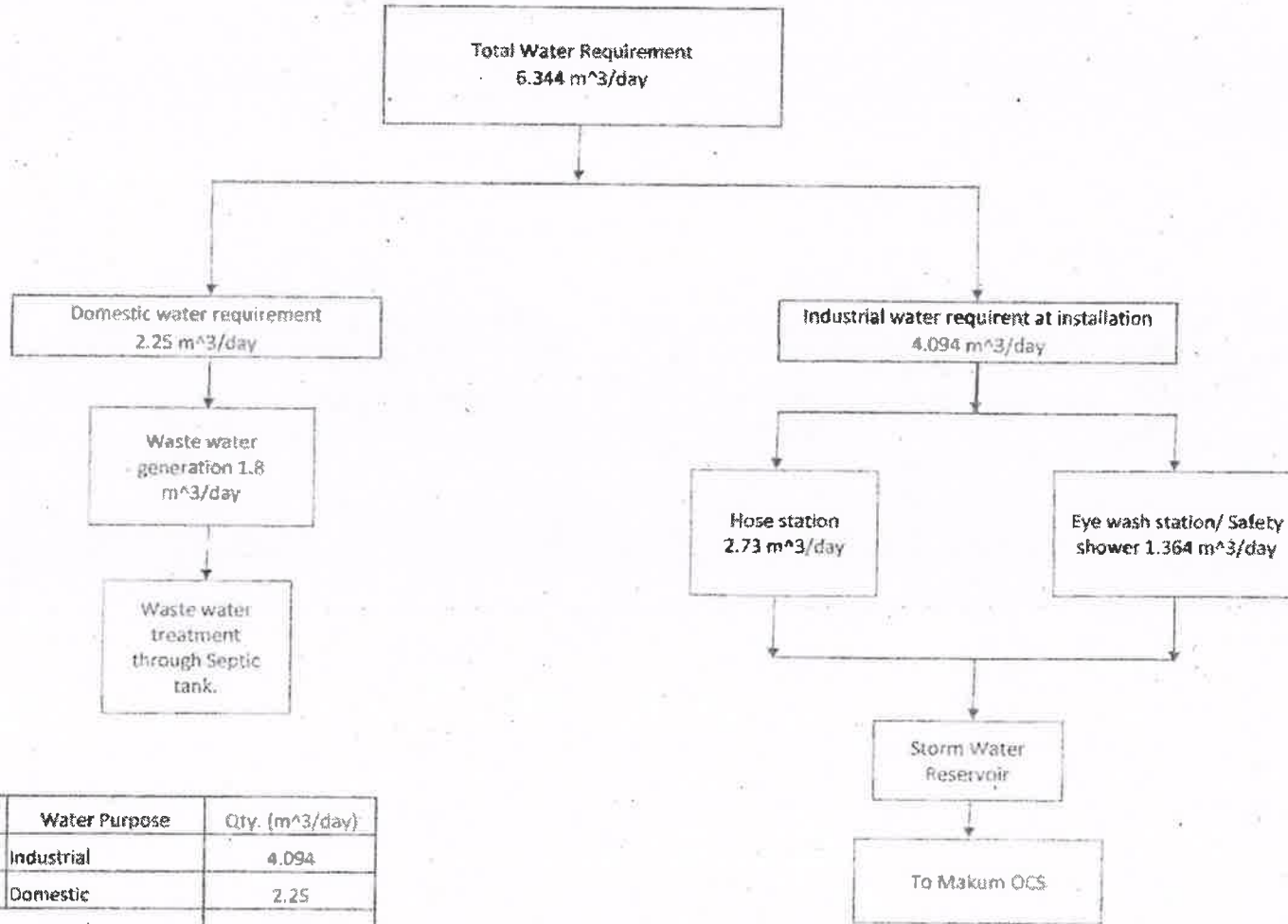
- The results relate only to the item(s) tested.
- This Test Report shall not be reproduced except in full, without the permission of Mitra S.K. Private Limited.
- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayam Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Sbrachi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016, West Bengal, India.  
 Tel. : 91 33 40143000 / 22650006 / 22650007 Fax : 91 33 22650008  
 Email : info@mitrask.com. Website: www.ultrask.com

*Uttam Prodhan*  
 Approved by  
 Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,  
 Oil India Ltd., Duliajan, Assam

WATER BALANCE FOR PRODUCTION INSTALLATION- GCS HEBEDA VILL., Makum



Sl. No.	Water Purpose	Qty. (m³/day)
1	Industrial	4.094
2	Domestic	2.25
<b>Total</b>		<b>6.344</b>

(Prepared by)  
WTM)-AAPPL

(Approved by)

Chief Plant Manager  
GCS Hbd., Makum  
Assam Air Product Pvt. Ltd.



ऑयल इंडिया लिमिटेड  
(भारत सरकार का उद्यम)  
**Oil India Limited**  
(A Government of India Enterprise)

**GAS MANAGEMENT SERVICES  
FOR INTERNAL USE ONLY**

Ref. No.: GMS:4/3-475

Date:03.11.2023

INTER-OFFICE MEMORANDUM

<b>From</b>	: CGM-GMS
<b>To</b>	: CGM(HSE)
<b>Sub</b>	: Six-monthly EC compliance status report of CGGS & OTP, Madhuban for the period from 1 <sup>st</sup> April'23 to 30 <sup>th</sup> Sept'23.
<b>Ref</b>	:

Reference to the above subject, please find enclosed six-monthly EC compliance status report (Period from 1<sup>st</sup> April'23 to 30<sup>th</sup> Sept'23) of CGGS & OTP Madhuban and feeder pipelines constructed to & from the installation under GMS department for your kind information and further necessary action please.

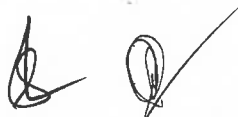
Regards

  
(Sumitra Goswami)

CGM-GMS

भारत सरकार (गैस प्रशासन विभाग)  
GMS (Gas Management Services)

CC: File.



**STATUS OF COMPLIANCE OF EC CONDITIONS**

**Installation:** Central Gas Gathering Station and Offtake Point (CGGS & OTP), Madhuban  
**Feeder Pipelines:** 03 Nos (between CGGS & LPG OTP)  
**Period:** 01/04/2023-30/09/2023

**EC No:** F. No J-11011/682/2008-I A II(I) Dated 17.06.2013

<b>A. Specific Condition</b>			
<b>Sl No.</b>	<b>EC Condition</b>	<b>Name of Installation</b>	<b>Compliance status/ Remark</b>
i	Prior clearance under the Wildlife (Protection) Act, 1972, should be obtained from the Standing Committee of the National Board for Wildlife as the project is located within 10 Km distance of Eco sensitive areas (Dehing Patkai WLS, Bherjan-Borajan-Podumoni WLS and Dibru-Saikhowa National Park).	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	NBWL clearance received vide letter No. WL/FG-35/Standing Committee NBWL dated 09.10.2014 & copy enclosed.
		Feeder Pipelines – 03 Nos.	NBWL clearance received vide letter No. WL/FG-35/Standing Committee NBWL dated 09.10.2014 & copy enclosed.
ii	No facility shall be developed in forest land.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied as it is not constructed in any forest land.
		Feeder Pipelines – 03 Nos.	Complied
iii	Adequate buffer zone around the oil and gas facilities, as may be required as per OISD or other statutory requirements.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Not Applicable
iv	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The company shall take necessary measures to	Central Gas Gathering Station and Offtake	Complied. The flare system is Enclosed Ground Flare type.



	prevent fire hazards and soil remediation as needed. At the place of ground flaring, the flare pit shall be lined with refractory bricks and efficient burning system. In case of overhead flare stacks, the stack height shall be provided as per the regulatory requirements and emissions from stacks shall meet the MOEF/CPCB guidelines.	Point (CGGS & OTP)- Madhuban	
		Feeder Pipelines – 03 Nos.	Not Applicable
v	Regular ambient air quality monitoring of PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , VOC <sub>s</sub> and HC (Methane and Non-methane) shall be monitored and displayed at a convenient location near the main gate of the company and at important public places. The location and results of existing monitoring stations should be reviewed in consultation with the concerned State Pollution Control Board based on the occurrence of maximum 3 ground level concentration and downwind direction of wind. If required, additional stations should be set up. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed. Ambient Air Quality Monitoring System (with Outdoor Display Board) for the CGGS, Madhuban installed and commissioned on <b>05.09.2023</b> .
		Feeder Pipelines – 03 Nos.	Not Applicable
vi	Regular monitoring of VOC and HC in the work zone area in the plant premises shall be carried and data be submitted to Ministry's Regional Office at Shillong, CPCB and Assam Pollution Control Board.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied. Latest Report of Ambient Air Quality along with VOC and HC Monitoring is enclosed. Online Fire & Gas Detection System is also installed in this station.
		Feeder Pipelines – 03 Nos.	Not Applicable
vii	Vapor recovery system shall be installed to prevent leakage of vapor from tank/ vessels / processing and filling areas to ensure no hydrocarbon vapors are released unchecked.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Not Applicable. Considering small capacity tanks (2 nos. of 500 m <sup>3</sup> and 1 no. of 250 m <sup>3</sup> ) and used as intermediate storage of NGL with half of the designed capacity, chances of leakage of vapour was not seen and Recovery System was not planned.

		Feeder Pipelines – 03 Nos.	Not Applicable.
viii	Total fresh water requirement from ground water source shall not exceed 18 m <sup>3</sup> /day per GCS, 17 m <sup>3</sup> /day per FGS and around 15 m <sup>3</sup> /day per CGGS & OTP and prior permission shall be obtained from the CGWA/SGWA.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied. Water consumption is within the prescribed limit.
		Feeder Pipelines – 03 Nos.	Not Applicable.
ix	The company shall construct the garland drain all around the project site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated streams. During rainy season, the storm water drains shall be connected to oil water separator and passed through guard pond. Water quality monitoring of guard pond shall be conducted	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Not Applicable.
x	Produced water/wastewater separated during processing in GCSs/FGSs/CGGS shall be treated in efficient Effluent Treatment Plants and then routed to the nearby oil collecting station for injection into underground structures at depth between 1000m to 1500 m. Water quality of treated effluent shall conform to CPCB standards. No effluent shall be discharged outside the premises of facilities	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	The installation has an Effluent Treatment Plant to maintain treated water quality as per CPCB norms. No effluent is discharged outside the premises of the installation. However, due to non-availability of water in the feed gas, only trial run of ETP is done on regular basis to meet the future need, if arises.
		Feeder Pipelines – 03 Nos.	Not Applicable
xi	Oil Industry Safety Directorate guidelines regarding safety against fire, spillage, pollution control etc. should be followed. Company shall ensure no oil spillage occur during loading / unloading of petroleum products.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied

		Feeder Pipelines – 03 Nos.	Complied
xii	The project authorities should strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. All the hazardous waste should be properly treated and disposed off in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	complied
xiii	Necessary approvals from Chief Controller of Explosives must be obtained before commission of project. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied DGMS approval available.
		Feeder Pipelines – 03 Nos.	Complied
xiv	The company shall obtain all requisite clearances for fire safety and explosives and should comply with the stipulation made by the respective authorities.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
xv	All storage tanks should be provided with design features based on applicable OISD standards.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Not Applicable
xvi	No change in the storage capacity and other facilities should be made without getting proper approval from the Ministry.	Central Gas Gathering Station and Offtake	Will be complied

		Point (CGGS & OTP)- Madhuban	
		Feeder Pipelines – 03 Nos.	Will be complied
xvii	Fully automated tank farm management system (TFMS) will be provided for accounting of products & reconciliation.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Not Applicable Only 3 nos. small condensate storage tanks (2 nos. of capacity 500 m <sup>3</sup> and 1 no. of capacity 250 m <sup>3</sup> ) are installed and those are used as intermediate storage tank in the installation. Measurement of level, flow and pressure in these tanks is automatic and all data is available through DCS. Also, automatic Fire Fighting System and Safety Shut down System are installed for protection of these tanks.
		Feeder Pipelines – 03 Nos.	Not Applicable
xviii	Emergency Response Plan shall be based on the guidelines prepared by OISD, DGMS and Govt. of India. Mock drill shall be conducted once in a month.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
xix	Bottom oil sludge should be handled, stored and disposed as per CPCB/ MoEF guidelines. An action plan in this regard including bioremediation should be submitted to the Ministry and its Regional Office at Shillong within 3 months of issue of the letter.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied Secured, covered, impermeable sludge storage facility is already available and has already been intimated to MoEF.
		Feeder Pipelines – 03 Nos.	Not Applicable
xx	Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.	Central Gas Gathering Station and Offtake	Complied

		Point (CGGS & OTP)- Madhuban	
		Feeder Pipelines – 03 Nos.	Complied
xxi	Green belt should be developed in 33% of the plot area to mitigate the effect of fugitive emission all around the plant in consultation with DFO as per CPCB guidelines. Thick green belt around POL depot should be ensured.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Being complied. Green belt is being developed.
		Feeder Pipelines – 03 Nos.	Not Applicable
xxii	All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 23rd August, 2011, 25th August, 2011 and 26th August, 2011 for the project shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Shillong.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
xxiii	At least 5 % of the total cost of the project shall be earmarked towards corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Shillong. Implementation of such program shall be ensured accordingly in a time bound manner.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	The CSR Policy of the company is already in place and the same is being implemented in time bound phased manner as per government directive.
		Feeder Pipelines – 03 Nos.	The CSR Policy of the company is already in place and the same is being implemented in time bound phased manner as per government directive.
xxiv	Company shall prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system measures to be taken for protection. One set of environmental manuals shall be made available at the drilling site/ project site. Awareness	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied

	should be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	Feeder Pipelines – 03 Nos.	Complied
xxv	Project proponent shall comply with the environment protection measures and safeguards recommended in the EIA/EMP/risk analysis report/disaster management plan.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
xxvi	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)- Madhuban	Complied. Presently Not Applicable.
		Feeder Pipelines – 03 Nos.	Complied. Presently Not Applicable.

<b>B. General Condition</b>			
<b>Sl No.</b>	<b>EC Condition</b>	<b>Name of Installation</b>	<b>Compliance status/ Remark</b>
i	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
ii	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Will be complied
		Feeder Pipelines – 03 Nos.	Will be complied

	the adequacy of conditions imposed and to add additional environmental protection measures required, if any.		
iii	The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained, wherever applicable.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied.
		Feeder Pipelines – 03 Nos.	Complied.
iv	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Not Applicable
v	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. It is being maintained centrally for OIL.
		Feeder Pipelines – 03 Nos.	
vi	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
vii	The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six-monthly compliance report and the	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. Monitored data enclosed.

	monitored data along with statistical interpretation shall be submitted to them regularly.	Feeder Pipelines – 03 Nos.	Complied
viii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad /Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied
		Feeder Pipelines – 03 Nos.	Complied
ix	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, HC (Methane & Non-methane), VOC <sub>s</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. Compliance status including monitored data is regularly sent to concerned government authorities. Monitored data is also enclosed herewith. Ambient Air Quality Monitoring System (with Outdoor Display Board) for the CGGS, Madhuban installed and commissioned on <b>05.09.2023</b> .
		Feeder Pipelines – 03 Nos.	Complied.
x	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the PCB, Assam. The Regional Office of this Ministry / CPCB / MPPCB shall monitor the stipulated conditions.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. Monitored data enclosed.
		Feeder Pipelines – 03 Nos.	Complied.
xi	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied.



	as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Feeder Pipelines – 03 Nos.	Complied.
xii	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the PCB, Assam and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.
		Feeder Pipelines – 03 Nos.	Complied.
xiii	Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. Same shall be forwarded to the Regional office.	Central Gas Gathering Station and Offtake Point (CGGS & OTP)-Madhuban	Complied. Copy of newspaper advertisement forwarded with our Compliance Status Report submitted in April, 2014.
		Feeder Pipelines – 03 Nos.	Complied.

  
(Sumitra Goswami)  
CGM-GMS

सुमित्रा गोस्वामी (सहायक निदेशक, प्रशासन)  
एन.ए.सी. (एन.ए.सी. बिल्डिंग, कोलकाता-700009)

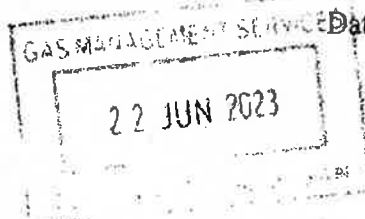
For internal use only

Ref.no.: Chem/Ana/PW/1029/DJN/23

Date: 21.06.2023

CGM - GMS

Attn. :- Sanjeev Pandit, Suptdg. Engineer (GMS)



**Sub: DRAIN WATER OUTLET ANALYSIS REPORT OF CGGS MADHUBAN**

Ref. No:- GMS/CGGS/23-24/2136

Date: 19.06.2023

Reference above, please find below the test results of Drain water outlet sample forwarded to us from your end for laboratory testing.

Characteristics	Unit	Tolerance limit as per State Pollution Control Board of Assam.	Drain outlet	Test Method/ Instrument Used
Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	mg/l	1.2 (max)	0.040	UV-vis Spectrophotometer
Sulphate as SO <sub>4</sub> <sup>2-</sup>	mg/l	1000 (max)	7	UV-vis Spectrophotometer
Chromium (as Cr <sup>+6</sup> )	mg/l	0.1 (max)	Nil	UV-vis Spectrophotometer

**Sample details:-**

The drain water outlet sample was collected from the above mentioned sources of CGGS Madhuban by GMS Deptt. on 19.06.2023 and received at Analytical & Environmental Lab. on 19.06.2023.

**Note:- Parameters were tested as per requirement of the customer.**

Tested by: WR/PJK/BU

Dipjyoti Hazarika  
 Dy. Chief Chemist (Lab)  
 For GM-Chemical (Lab and P&A)  
 Copy: Analytical & Environmental sec. file.

ChemLab/Ana/Report/Water/02

*[Handwritten signature]*

*[Handwritten signature]*



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सस्वाम) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliagan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)  
CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633.  
Email : chemical@oilindia.in)

For internal use only

Ref. No.: Chem/Ana/Misc/847/DJN/23

25 May 2023

Date: 25.05.2023

CGM - GMS

Attn:- Sanjeev Pandit, Suptdg. Engineer (GMS)

### SUB: POND WATER SAMPLE ANALYSIS REPORT OF CGGS MADHUBAN

Ref.:- GMS/CGGS/23-24/2128,

Date:- 23.05.2023

Reference above, please find below the test results of the Pond water samples forwarded to us from your end for laboratory testing.

Characteristics	Unit	Desirable limit as per IS: 2296-1982 for Inland surface waters	Pond water (Near EGFS pond-1)	Pond water (Near EGFS pond-2)	Test Method / Instrument used
		For fish culture			
Dissolved Oxygen	mg/l	4.0( Min)	6.16	6.70	Hach Dissolved Oxygen meter
Sulphate as SO <sub>4</sub> <sup>2-</sup>	mg/l	-	Nil	Nil	UV-vis Spectrophotometer
Electrical Conductance at 25°C	mhos/cm	1000x10 <sup>-6</sup> (max)	114.4x10 <sup>-6</sup>	102.2x10 <sup>-6</sup>	Metrohm Conductivity meter

#### Sample Details :-

The pond water samples were collected from the above mentioned sources of CGGS Madhuban by GMS Deptt. on 23.05.2023 & received at Analytical & Environmental Lab. on 23.05.2023.

Note:- Parameters were tested as per requirement of the customer mentioned in the memo.

Tested by: SB/BD

1M (CGGS - Madhuban)

for record and repl

30/05/23

Dipjyoti Hazarika

Dy. Chief Chemist (Lab)

For GM-Chemical (Lab and P&A)

Copy : Analytical & Environmental sec. file

Par



ऑयल इंडिया लिमिटेड  
(भारत सरकार का सव्दान) पंजीकृत कार्यालय : दुलियाजान, आसाम  
**Oil India Limited**  
(A Government of India Enterprise) Registered Office : Duliajan, Assam

## CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)  
CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633,  
Email : chemical@oilindia.in)

For internal use only.

Ref. No.: Chem/Ana/DW/846/DJN/23

Date: 25.05.2023

CGM - GMS

Attn. :-Sanjeev Pandit, Suptdg. Engineer (GMS)

### Sub: DRINKING WATER ANALYSIS REPORT OF CGGS MADHUBAN

Ref.:- GMS/CGGS/23-24/2127;

Date:- 23.05.2023

Reference above, please find below the test results of the drinking water sample forwarded to us from your end for laboratory testing.

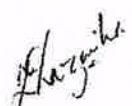
Characteristics	Unit	Acceptable limit as per Bureau of Indian Standards for drinking water (IS - 10500:2012) Second revision	Test results	Test Method/ Instrument used
Odour		Agreeable	Agreeable	By sniffing
Turbidity	NTU	#5.0 (Max)	1.05	Turbidity meter
pH	-	6.5 to 8.5	7.2	Metrohm pH meter
Total Hardness (as CaCO <sub>3</sub> )	mg/l	200.0(max.)	100	Titration with EDTA
Iron (as Fe <sup>++</sup> )	mg/l	0.3(max.)	0.04	UV-vis Spectrophotometer
Chloride (as Cl <sup>-</sup> )	mg/l	250.0 (max.)	6	Titration with Silver nitrate
Total dissolved solids	mg/l	500 (max.)	90	HACH water checker
Alkalinity (as CaCO <sub>3</sub> )	mg/l	200(max.)	120	Titration with HCl
Mineral Oil	mg/l	0.5(max.)	Nil	Horiba oil content analyser

#### Sample details. :

The above Drinking water sample was collected by GMS Department from CGGS & OTP Madhuban on 23.05.2023 & received at our Analytical & Environmental lab on 23.05.2023.

*Note: Ref.to request by FE deptt.vide letter no. FE/W.1.9/357/18 dated 27/04/2018, the turbidity of water sample(s) is measured as per IS:10500:2012 (Second revision) where permissible limit is set at 5.0 NTU (instead of 1.0 NTU) in absence of alternate source.*

Tested by :- SB/BD

  
Dipjyoti Hazarika  
Dy. Chief Chemist (Lab)

For GM-Chemical (Lab and P&A)

Copy : Analytical & Environmental sec. file

ChemLab/Ana/Report/Water/03

  
Sanjeev Pandit

  
25/05/2023

## STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2023-24/0511
"M/s OIL INDIA LIMITED" Duliajan, Dibrugarh, Assam-786602		Report Date	: 30.05.2023
		Nature of Sample	: Stack Emission
		Sample Mark	: CGGS MADHUBAN
		Sample Number	: MSKGL/ED/2023-24/05/01415
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
02.05.2023	05.05.2023	05.05.2023	12.05.2023

### ANALYSIS RESULT

A.	<b>General information about stack :</b>		: GEG-1
1.	Stack connected to		: NIL
2.	Emission due to		: NG
3.	Material of construction of Stack		: MS
4.	Shape of Stack		: Circular
5.	Whether stack is provided with permanent platform & ladder		: Yes
6.	DG capacity		: 906 KVA
B.	<b>Physical characteristics of stack :</b>		
1.	Height of the stack from ground level		: 12.192 m
2.	Diameter of the stack at sampling point		: 0.127 m
3.	Area of Stack		: 0.05064 m <sup>2</sup>
C.	<b>Analysis/Characteristic of stack:</b>		
	1. Fuel used : HSD		
D.	<b>Result of sampling &amp; analysis of gaseous emission</b>	<b>Result</b>	<b>Limit as per CPCB</b>
1.	Temperature of emission (°C)	235	...
2.	Barometric Pressure (mm of Hg)	762.0	...
3.	Velocity of gas (m/sec.)	21.7	...
4.	Quantity of Gas Flow (Nm <sup>3</sup> /hr)	2326	...
5.	Concentration of Oxygen (%v/v)	13.8	...
6.	Concentration of Carbon Monoxide (mg/Nm <sup>3</sup> )	26.1	150
7.	Concentration of Carbon Dioxide (%v/v)	5.4	...
8.	Concentration of Sulphur Dioxide (mg/Nm <sup>3</sup> )	27.9	...
9.	Concentration of Nitrogen Oxide (ppmv)	82.5	360
10.	Concentration of Lead (mg/Nm <sup>3</sup> )	<0.005	...
11.	Concentration of Particulate matter (mg/Nm <sup>3</sup> )	41.3	75
12.	Concentration of Hydrocarbons (ppm)	<0.0003	100
E.	<b>Pollution control device :</b>		<b>Remarks: Nil</b>
	Details of pollution control devices attached with the stack : Nil		

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature :

Name :


Designation :

  
Mr. Dhrubajyoti Das  
Assistant Chemist

Signature :

Name :

Designation :

  
Miss Neeha Sarmah  
Office Assistant

Signature :

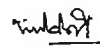
Name :

Designation : Branch Manager



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- Our Lab is Approved by NABL & MOEF, Lab Address : P-18 Udayan Industrial Estate, 3 Pagladanga Road Kol-700015

Head Office: Shrauchi Centre (5th floor), 74B, A.J.C. Bose Road, Kolkata - 700 016, West Bengal, India.  
Tel. : 91 33 40143000 / 22650096 / 22650007 Fax : 91 33 22650008  
Email : info@mitrask.com. Website: www.mitrask.com

  
Approved by  
Uttam Pradhan  
Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Duliajan, Assam


 



### Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2023-24/0937			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 30.06.2023			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2023-24/06/00741			
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895		Sampling Location : CCGS MADHUBAN NEAR FLARE AREA			
GPS Reading : N 27°51'38", E 95°42'53"					
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date		
22.05.2023	25.05.2023	25.05.2023	01.06.2023		
Environmental Conditions During Sampling & Transport Condition : Temperature : 31°C, Rain fall : NO					
<b>Analysis Result</b>					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1.	Particulate Matter ( PM <sub>10</sub> )	IS : 5182 (Part-23)-2006	(µg/m <sup>3</sup> )	91.3	100
2.	Particulate Matter ( PM <sub>2.5</sub> )	IS : 5182 (Part-24)	(µg/m <sup>3</sup> )	50.7	60
3.	Sulphur Dioxide ( SO <sub>2</sub> )	IS : 5182 (Part-2)-2001	(µg/m <sup>3</sup> )	11.3	80
4.	Nitrogen Dioxide ( NO <sub>2</sub> )	IS : 5182 (Part-6)-2006	(µg/m <sup>3</sup> )	33.5	80
5.	Carbon Monoxide ( CO )	IS 5182 : (Part-10) :1999	(mg/m <sup>3</sup> )	1.04	2
6.	Ozone ( O <sub>3</sub> )	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m <sup>3</sup> )	32.5	180
7.	Ammonia ( NH <sub>3</sub> )	IS 5182 (Part 25) : 2018	(µg/m <sup>3</sup> )	16.3	400
8.	Lead ( Pb )	USEPA IO-3.4	(µg/m <sup>3</sup> )	<0.01	1
9.	Nickel ( Ni )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<5.0	20
10.	Arsenic ( As )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<1.0	6
11.	Benzene ( C <sub>6</sub> H <sub>6</sub> )	IS 5182 : (Part 11) :2006	(µg/m <sup>3</sup> )	<4.2	5
12.	Benzo(a)Pyrene ( BaP )	IS 5182 : (Part 12) :2004	(ng/m <sup>3</sup> )	<0.5	1
13.	Mercury ( Hg )	USEPA IO-5.0	(µg/m <sup>3</sup> )	<0.002	...
14.	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	1.80	...
15.	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	...
16.	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	1.80	...
17.	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m <sup>3</sup> )	<4.2	...
Limit as per CPCB notification, New Delhi, 18th Nov, 2009, for Ambient air quality					

Analyzed By:


Signature :   
Name : Mr. Dipankar Mazumdar  
Designation : Executive Chemist

Prepared By:

Signature :   
Name : Miss Neeha Sarmah  
Designation : Office Assistant

Authorized Signatory

For Mitra S.K. Private Limited

Signature :   
Name : Mr. Rajib Roy  
Designation : Branch Manager

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Approved by  
Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Duliajan, Assam





**ANNEXURE - A****ENVIRONMENT MANAGEMENT CELL OF OIL INDIA LIMITED - FHQ, DULIAJAN**

<b>No</b>	<b>NAME</b>	<b>DESIGNATION</b>	<b>QUALIFICATION</b>
1.	Sri. Rupam Jyoti Sutradhar	Deputy General Manager (HSE)	B.Sc (Chemistry), M.Sc (Chemistry)
2.	Sri. Swapnanil Kakaty	Deputy Chief Engineer (HSE)	B.E (Electrical Engineering)
3.	Sri. Sachin Kumar Verma	Superintending Engineer (HSE)	B.Tech (Environmental Engineering)
4.	Sri. Akash Neel Das	Superintending Engineer (HSE)	B.E (Mechanical Engineering), PG Diploma (Fire & Safety Management), PGDM
5.	Sri. Bantupalli Sai Venkatesh	Superintending Engineer (HSE)	B.E (Civil Engineering), M.Tech (Environmental Engineering)





**Common Environment Management Plan for Onshore Oil & Gas  
Drilling Activity**





## Contents

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2.0	<b>Environmental Management Plan</b>
3.0	<b>IMPACT ASSESSMENT</b>
	<b>4.1 Air Quality</b>
	<b>4.2 Noise Quality</b>
	<b>4.3 Soil Quality</b>
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	<b>4.5 Biological Environment</b>
	<b>4.6 Socio-Economic Environment</b>
	<b>4.7 Impact on Community Health &amp; Safety</b>
4.0	<b>DETAIL ENVIRONMENTAL MANAGEMENT PLAN</b>
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	<b>5.8 Road Safety &amp; Traffic Management Plan</b>
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	<b>5.11 Emergency Response Plan</b>
5.0	<b>Environment Management Matrix</b>
6.0	<b>Summary and Conclusion</b>

## **1.0 INTRODUCTION:**

OIL INDIA LIMITED (OIL), a Government of India Maharatna Enterprise, is currently engaged in carrying out hydrocarbon exploration and production activities mostly in its operational areas in Upper Assam, Arunachal Pradesh and Mizoram in the North Eastern part of India. OIL is also undertaking hydrocarbon exploration activities in few Indian states and few overseas countries. Oil India Limited was incorporated on 18<sup>th</sup> February 1959 to expand and develop the newly discovered oil fields of Naharkatia and Moran in the Indian North East. In 1961, it became a joint venture company between the Indian Government and Burmah Oil Company Limited, UK. In 1981, OIL became a wholly owned Government of India enterprise. Today, OIL is a premier Indian National Oil Company engaged in the business of exploration, development and production of crude oil and natural gas, transportation of crude oil and production of LPG.

Govt. of India and Assam has awarded Petroleum Mining Leases (PML) to OIL for exploration and development of oil & gas at Dibrugarh, Chabua, Tinsukia, Hugrujan, Naharkatiya Extn, Dholiya and Dumduma areas including the adjoining areas in Dibrugarh, Tinsukia and Sibsagar Districts.

## **2.0 Environmental Management Plan**

This Environmental Management Plan and Monitoring Framework is a site-specific document for the drilling activities that have been developed to ensure that OIL can implement the project in an environmentally conscious manner and where all contractors, understand the potential environmental risks arising out of the proposed project and take appropriate actions to properly manage such risk.

This EMP will be an overview document that will guide environmental management of all aspects of OIL's activities i.e. construction and operation of drilling wells. This EMP will be backed up by more specific Environmental Action Plans, Procedures and Bridging Documents.

The EMP describes the actions to be adopted in terms of:

- National Policies and Regulations;
- Best Practices and guides; and
- Local Environmental and Social Sensitivities.

**The Environment Policy of OIL is presented below.**



ऑयल इंडिया लिमिटेड  
**Oil India Limited**

**ENVIRONMENT POLICY**

Oil India Limited is guided by its Core purpose of "being a fastest growing energy company with global presence and providing value to all stake holders". Currently as an E&P company, OIL has a pan India presence with overseas foot prints.

In alignment with the core purpose, OIL is deeply committed to the Preservation of Environment & Ecology, Sustainable Development, Enrichment of the quality of life of Employees, Customers and the Community around its operational areas.

In pursuance of the above mentioned policy OIL is committed to:

1. Ensure an environment friendly work place in all our operations.
2. Comply with relevant Environmental Laws and Regulations in OIL's operations, prescribed by the statutory bodies.
3. Follow a systemic approach to Environmental Management Plan in order to achieve continual performance improvement.
4. Adopt technologies that conserve energy, prevent pollution, maximize recycling, reduce wastes, discharge and emissions.
5. Develop green belts and plant trees in and around OIL's operational areas in harmony with nature.
6. Protect aesthetic, cultural, social patterns and historical characteristics in and around OIL's operational areas.
7. Promote a culture among OIL employees, contractors and all the stake holders associated with OIL for shared responsibility towards environmental protection.
8. Promote and nurture a healthy, safe & productive environment in its area of operations.



(S.RATH)  
**DIRECTOR (OPERATIONS)**

Effective Date: 25<sup>th</sup> April, 2012  
Approved in the 420<sup>th</sup> Board Meeting

### 3.0 IMPACT ASSESSMENT

The potential impacts arising due to the construction and operation of the drilling activities are given below:

**3.1 Air Quality:** The operation of DG/GG sets, movement of vehicles and machineries during construction and drilling at drill sites will result in the generation of air pollutants viz. PM, NO<sub>x</sub> and SO<sub>x</sub> that may affect the ambient air quality temporarily. Air pollutants like particulate matter, hydrocarbons and NO<sub>x</sub> will also be generated during drilling operations.

**3.2 Noise Quality:** Operation of heavy machinery/equipments and vehicular movement during site preparatory and road strengthening/construction activities may result in the generation of increased noise levels. Operational phase noise impacts are anticipated from the running of drilling rig and ancillary equipment viz. shale shakers, mud pumps and diesel generators, gas generators.

**3.3 Soil Quality:** Stripping of top soil will affect the soil fertility of the well sites temporarily. Potential adverse impacts on soil quality may also result from improper storage and handling of fuel, lubricants, drilling mud and drill cuttings.

**3.4 Water Quality and Hydrogeology:** All wastewater discharged from the drilling operations will be treated in the ETP and discharges will conform to CPCB standards. As the volume of water to be discharged is small, it is anticipated to cause minor increase in pollution load for specific parameters in receiving water bodies. Uncontrolled surface runoff from the drill sites may compose of waste fluids or storm water mixed with oil and grease and may pollute the surface water quality. However, the surface runoff will be treated with sedimentation tank and oil water separator at site.

#### **3.5 Biological Environment:**

The existing vegetation at the proposed drill sites, approach roads and RoU of the pipeline will be felled for site development. Noise generated from drilling operations and vehicular movement within the drill sites and approach roads may affect the reptiles, birds and mammals adversely and may result in their moving away from the project area for a temporary period. OIL will obtain Forest Clearance from MoEF&CC for drilling within the forestlands; all the conditions mentioned in the forest clearance would be complied. Surface runoff from the drill sites contaminated with sediment, may reach surface water channels and increase the suspended solids load of the channel water. Increase of suspended solid will increase the turbidity of river water that ultimately will adversely affect the DO level in the water. The turbid water and lower DO may affect the primary productivity of the impacted areas of the rivers. The process effluent will be adequately treated in the ETP to meet the industrial effluent discharge standards. The discharge of treated effluent is not expected to cause perceptible changes in the water quality of the receiving stream.

**3.6 Socio-Economic Environment:** Approximately 3 ha. land would be required for each well. Land will be purchased from local communities however; no physical displacement during land procurement is anticipated. Additionally, land will also be procured for construction of 100-200 m approach road to the drill site from existing roads. Anticipated number of families directly impacted would be limited to 2-5 nos. for each of the drill sites. The dependency of the landowner in case of generation of livelihood is limited as the land is classified as monocropped agricultural land.

OIL/its contractors would endeavour to provide maximum employment to the local people; however, certain percentage of semi-skilled and highly skilled migrant labour would be used by contractors for manning technical activities. It is anticipated that occasional conflicts would arise with the local community over the recruitment of migrant workers. Discomfort due to dust and noise to adjoining communities, influx of people are likely to occur.

The construction phase of the project is likely to generate both direct and indirect opportunities for employment. The estimated direct employment would be approximately 50 un-skilled workers during the peak construction phase that will primarily sourced from nearby areas. Indirect employment would be primarily in the supply chain as vendors, which are anticipated to be set up to support the construction.

**3.7 Impact on Community Health & Safety:** Community health and safety of inhabitants residing close to the proposed well sites stand to get affected from frequent heavy vehicular movements along village access roads and due to noise from drilling rig operations, movement of heavy vehicles during construction etc.

## **4.0 DETAIL ENVIRONMENTAL MANAGEMENT PLAN**

### **4.1 Air Quality Management Plan**

- Vehicles delivering raw materials like fine aggregates will be covered to prevent fugitive emissions.
- Sprinkling of water on earthworks, material haulage and transportation routes on a regular basis during construction and decommissioning phase of the wells.
- Flare stacks of adequate height would be provided.
- DG/GG set stacks would have adequate height, as per statutory requirements, to be able to adequately disperse exhaust gases
- Periodic monitoring of DG/GG set stack emission will be carried out in accordance with the Environmental Monitoring Plan to assess compliance with CPCB DG set exhaust standards.

### **4.2 Noise Management Plan**

- Selection and use of low noise generating equipment with in-built engineering controls viz. mufflers, silencers, etc.
- All DG/GG sets would be provided with acoustic enclosures.
- Appropriate PPEs (e.g. ear plugs) will be used for by workers while working near high noise generating equipment.
- All vehicles utilized in transportation of raw materials and personnel will have valid Pollution under Control Certificates (PUC).
- All high noise generating equipment will be identified and subjected to periodic preventive maintenance.
- No night time operation of vehicles and construction activities will be undertaken.

#### **4.3 Soil Quality Management Plan**

- Drip trays to be used during vehicular/equipment maintenance and during re-fuelling operations.
- Spill kits will be made available at all fuel and lubricant storage areas. All spills/leaks contained, reported and cleaned up immediately.
- Dedicated paved storage area will be identified for the drilling chemicals, fuel, lubricants and oils within the drill sites.
- 1.5 mm HDPE lined pits will be considered for the disposal of unusable drilling mud cuttings and drilling wastewater etc.

#### **4.4 Surface Water Quality Management Plan**

- Levelling and grading operations will be undertaken with minimal disturbance to the existing site contours thereby maintaining the general slope and topographical profile of the site.
- During site preparation and construction, surface water run-off will be channelized through appropriately designed drainage system.
- Sediment filters and oil-water separators will be installed to intercept run-off and remove sediment before it enters water courses.
- Domestic wastewater generated from drill sites will be treated through septic tank and soak pit system and then discharged.
- Process wastewater would be treated in Effluent Treatment Plant (ETP) at drill sites.

#### **4.5 Ground Water Quality Management Plan**

- Water based mud would be used as a drilling fluid for the proposed project.
- Eco-friendly synthetic based mud if required for deeper sections, will be used after providing intimation to the Pollution Control Board;
- The drill cutting along with spent mud will be stored in HDPE lined pit.

#### **4.6 Waste Management Plan**

- Use of low toxicity chemicals for the preparation of drilling fluid.
- Management of drill cuttings, waste drilling mud, waste oil and domestic waste, wastewater in accordance with Standards for Emission or Discharge of Environmental Pollutants from Oil Drilling and Gas Extraction Industry of CPCB as modified in 2005.
- The hazardous waste (waste and used oil) will be managed in accordance with Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016.
- The kitchen waste will be disposed in nearest municipal/village dumping site on a daily basis through approved waste handling contractors.
- The sewage generated will be treated through septic tank and soak pit system.
- Used batteries will be recycled through the vendors supplying lead acid batteries as required under the Batteries (Management & Handling) Rules, 2001.
- The drilling cuttings pit will be bunded and kept covered using tarpaulin sheets during monsoon.

#### **4.7 Wildlife Management Plan**

- Movement of heavy vehicles will be restricted at night time, especially if access roads pass through forest areas, as most of the mammals movement occurs during night;
- Noise levels at the drill sites will be controlled through selection of low noise generating equipment and installation of sufficient engineering controls viz. mufflers, silencers etc.
- No temporary electric supply connection line from the grid will be laid for the proposed project activity. All electric requirements will be supplied from the internal DG sets.
- OIL will have to take Forest Clearance from MoEFCC for development of drill sites, access roads and laying of pipeline within forest areas.

#### **4.8 Road Safety & Traffic Management Plan**

- The condition of roads and bridges identified for movement of vehicles and drilling rig will be assessed and if required strengthened by OIL to ensure their safe movement.
- Precautions will be taken by the contractor to avoid damage to the public access routes including highways during vehicular movement.
- Traffic flows will be scheduled wherever practicable during period of increased commuter movement.

#### **4.9 Occupation Health & Safety Management Plan**

- All machines to be used in the construction will conform to the relevant Indian Standards (IS) codes, will be kept in good working order, will be regularly inspected and properly maintained as per IS provisions and to the satisfaction of the site Engineer.
- Hazardous and risky areas, installations, materials, safety measures, emergency exits, etc. shall be appropriately marked.

#### **4.10 Management of Social issues and concerns**

- People from adjoining areas especially given job preference through local contractors according to the skill sets possessed.
- Prior to the commencement of the proposed activity, a consultation program will be conducted by OIL with the target groups and local authorities. The primary objective of such consultation will be to share with the concerned villagers/stakeholders the objective of the proposed project associated impacts and their mitigation.
- OIL will give more emphasis and priority on periphery development, development of health facilities and provision for drinking water facility as per Corporate Social Responsibility (CSR) Plan.
- The drill sites would be fenced and gates would be constructed so that the children are refrained from straying into the site.

#### **4.11 Emergency Response Plan**

- Drilling rig and related equipment to be used for drilling will be conformed to international standards specified for such equipment.
- Blow-out preventers and related well control equipment shall be installed, operated, maintained and tested generally in accordance with internationally recognized standards.
- Appropriate gas and leak detection system will be made available at each of the drill sites.
- Adequate fire-fighting equipment shall be provided at each drilling site.

The environmental mitigation measures and plans are presented in form of a matrix according to the sequential flow of activities in the project life cycle. The matrix focuses on strategies to be adopted for safe guard of the environment from possible impacts resulting out of the project activities. The strategies have further been detailed out as management procedures and programmes in subsequent sections.

The EMP helps establish the linkage between the activities environmental impacts and mitigation measures and presents the monitoring framework i.e. the Environmental Performance Indicator (EPI) No. as well as the Environmental Quality Indicator (EQI).



## 5.0 Environment Management Matrix

S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
1.	Physical Presence of drill site, rig and other machinery.	1.1	Change in visual characteristics of the area due to installation of drilling setup	Temporary change in landscape	On completion of works (in phases) all temporary structures, surplus materials and wastes will be completely removed. Only structure required for safety purposes would be retained on the bare drill site.	Site Inspection	Construction &Drilling	OIL/Contractor	Waste Management Plan
		1.2	Increase of illumination at night time due to installation of drilling setup	Temporary disturbance of the nearby villagers	Appropriate shading of lights to prevent scattering	Grievance records/ Consultation with Villagers	Construction &Drilling	OIL/Contractor	Management of social issues & concerns
		1.3	Influx of man power & immigrant labour force to nearby villages	Possibility Cultural and behavioural conflict	Preference used of local labour forces to the extent possible	Grievance records	Construction &Drilling	OIL/Contractor	Management of social issues & concerns
2.	Storage & Handling of Materials & Spoils	2.1	Emission of fugitive dust from loading & unloading operation	Temporary impact on air quality especially SPM	All loading and unloading activities to be carried out as close as possible to the storage facilities.	Site Inspection	Construction &Drilling	OIL/Contractor	Air Quality Management
		2.2	Accidental spillage of oil & chemicals	Potential contamination surface water body resulting impact on aquatic ecosystem	All spills to be reported and contained to prevent entry of spilled chemicals/fuels to any surface water body or drainage channel	Records of spills/Community Grievances	Construction &Drilling	OIL/Contractor	Surface water quality management plan, Wildlife Management Plan
				Potential impact on soil quality	All spills to be reported and remedial measures to be taken for clean-up of the spill.	Records of Spills/Site Inspection	Construction &Drilling	OIL/Contractor	Spill management plan

S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
3.	Transport of Materials, Spoils and Machinery	3.1	Emission of gaseous pollutants from vehicle during transportation of materials, spoils and machinery	Temporary deterioration on air quality along transport route	All diesel-powered equipment will be regularly maintained and idling time reduced to minimise emissions;  Vehicle / equipment air emissions will be controlled by good practice procedures (such as turning off equipment when not in use);  Vehicle / equipment exhausts observed emitting significant black smoke in their exhausts will be serviced/ replaced	Records and Site Inspection	Construction & Drilling	OIL/Contractor	Air Quality Management plan
		3.2	Noise emission during transport of materials, spoils and machinery	Temporary deterioration in ambient noise along the transportation route	Undertake preventive maintenance of vehicles and machinery to reduce noise levels.  Restriction on unnecessary use of horns by trucks and vehicle in settlement area	Site Inspection/Records of repairs	Construction & Drilling	OIL/Contractor	Noise Quality Management Plan
4.	Operation & maintenance of rig and associated machinery.	4.1	Emission of air pollutant from DG/GG sets	Temporary impact on air quality due to increase in concentration of gaseous pollutants e.g. NOx, HC	Preventive maintenance of DG sets to be undertaken as per manufacturers schedule	Site Inspection/Records of repairs	Drilling	OIL/Contractor	Air Quality Management plan
		4.2	Emission of Noise from DG/GG sets	Temporary increase of ambient as well a	All workers working near high noise generating equipment to be provided	Recording of Noise	Drilling	OIL/Contractor	Noise Quality Management Plan and

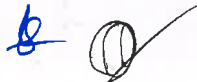


S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
				work place noise level	with Personal Protective equipment  Preventive maintenance of machinery to be undertaken as per manufacturers schedule  Install sufficient engineering control (mufflers) to reduce noise level at source				Occupational Health & Safety Management Plan
		4.3	Emission of noise from operation of the rig	Temporary increase of ambient as well a work place noise level	All workers working near high noise generating equipment to be provided with Personal Protective equipment  Preventive maintenance of machinery to be undertaken as per manufacturers schedule	Site Inspection	Drilling of Wells	OIL/Contractor	Noise Quality Management Plan and Occupational Health & Safety Management Plan
		4.4	Abstraction of ground water for project usage	Depletion of ground water resources	Optimize use of water during drilling operations	Record Keeping and Auditing	Construction & Drilling	OIL/Contractor	None
		4.5	Noise from mud pump during preparation of drilling mud	Temporary increase of ambient & work place noise level	Preventive maintenance of machinery to be undertaken as per manufacturers schedule	Recording of Noise	Drilling of Wells	OIL/Contractor	Noise Quality Management Plan and Occupational Health & Safety Management

No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
					All workers working near high noise generating equipment to be provided with Personal Protective equipment				Plan
		4.6	Accidental spillage of chemicals during preparation drill mud	Contamination of soil resulting loss of soil living organism	Manage spills of contaminants on soil	Records of spills	Drilling of Wells	OIL/Contractor	Spill Management plan
		4.7	Accidental spillage of chemicals during preparation drill mud	Potential impact on surface water quality and aquatic ecosystem	All spill to be contained so that it does not reach any surface water body or drainage channels	Records of spills	Drilling of Wells	OIL/Contractor	Surface water quality management plan
5.	Operation & maintenance of Vehicles	5.1	Emission of Noise from vehicles	Temporary increase of noise level in areas abutting transport route	Preventive maintenance of vehicles to be undertaken as and when required	Maintenance Records	Construction &Drilling	OIL/Contractor	Noise quality management plan
		5.2	Emission of gaseous air pollutant from vehicles	Temporary deterioration air quality in areas abutting transport routes	Preventive maintenance of vehicles to be undertaken as and when required	Site Inspection/Records of repairs	Construction &Drilling	OIL/Contractor	Air quality management plan
		5.3	Spillage of fuels & lubricants from vehicles	Contamination of soil resulting loss of soil living organism	Adopt best practices e.g. use pumps and dispensing nozzle for transfer of fuel, use of drip trays. Etc.	Site Inspections/Audits	Construction &Drilling	OIL/Contractor	Spill Management plan
				Impact on surface water quality and	The drainage system on site to be provided with Sedimentation tank and Oil-	Site Inspection/Audits	Drilling	OIL/Contractor	Surface water quality management

S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
				aquatic ecosystem	water Separator to prevent contamination especially oil and grease from being carried off by runoff.				plan and Spill Management plan
6.	Casing & cementing of well	6.1	Noise from machinery during preparation of cement slurry	Temporary increase of ambient noise level	Install sufficient engineering control on equipment and machineries (like mufflers in DG sets) to reduce noise and vibration emission levels at source, carry out proper maintenance and subject them to rigid noise and vibration control procedures.	Site Inspection	Drilling of Wells	OIL/Contractor	Noise quality management plan
		6.2	Loss of drilling mud and cement slurry during casing of well	Potential contamination of ground water aquifer	Proper engineering controls during cementing operation to prevent migration of drilling mud and cement slurry into ground water aquifer	Site Inspection	Drilling of Wells	OIL/Contractor	Ground water quality management plan
7.	Temporary storage, handling & disposal of process waste	7.1	Accidental spillage of process waste (unused cement slurry, return mud & drill cuttings) at the temporary storage site	Potential for contamination of soil and ground water	Proper engineering controls for the drilling and cementing operations;	Drilling and Decommissioning Phases	Drilling and Decommissioning Phases	OIL/Contractor	Ground water quality management plan
		7.2	Surface runoff from temporary storage site of drill cuttings & unused mud into surface water bodies	Impact on surface water quality and aquatic ecosystem	All Temporary waste storage area will have proper bunds to prevent any escape of contaminated runoff  Ensure that any runoff from such temporary storage area	Site Inspection and Record keeping	Drilling and Decommissioning Phases	OIL/Contractor	Surface water quality management plan and Spill Management plan

No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
					are channelized into ETP				
		7.3	Accidental leakage/spillage of oils and lubricants and fuel from temporary storages	Contamination of soil resulting in loss of soil living organism	Dispose process waste and domestic waste as per regulation/ best practices  Dispose debris and waste in designated areas and as per plan to prevent degradation of land	Site Inspection	Construction &Drilling	OIL/Contractor	Waste Management Plan and Spill Management plan
		7.4	Accidental leakage/spillage of oils and lubricants from temporary storages	Contamination of surface water resulting in deterioration of surface water quality and adverse impact on aquatic ecosystem	All chemical and fuel storage areas will have proper bunds so that contaminated run-off cannot escape into the storm-water drainage system.  The waste pits (waste water and drill cuttings) will be bounded and covered by tarpaulin sheet to prevent mixing of runoff water with waste water and leachate from waste pit and also reduce the volume of waste water.	Site Inspection	Construction &Drilling	OIL/Contractor	Waste Management Plan and Spill Management plan
		7.5	Disposal/spillage of spent oils & lubricants into environmental media	Contamination of soil resulting loss of soil living organism  Contamination of surface water resulting deterioration of surface water quality and aquatic	Ensure recycling of spent oil & lubricant through authorized dealer	Site Inspection	Construction &Drilling	OIL/Contractor	Waste Management Plan and Spill Management plan



S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
				ecosystem					
		7.6	Disposal of used battery & spent filters in environmental media	Potential for contamination of soil, ground water and surface water body	Ensure recycling of waste through authorized waste recycler	Site Inspection and Record Keeping	Construction & Drilling	OIL/Contractor	Waste Management Plan and Spill Management plan
		7.7	Offsite disposal of metallic, packing, scrap	Localized visual impacts		Site Inspection and Record Keeping	Construction & Drilling	OIL/Contractor	Waste Management Plan
8.	Testing & Flaring of natural gas	8.1	Emission of air pollutants from flare stack at drill site .	Temporary localized deterioration air quality (NOx, HC)	Proper engineering controls to ensure complete combustion of gas  Location of Flare stack to be chosen considering the sensitive receptors adjoining the site	Engineering Designs /Site inspections	Construction & Drilling	OIL S& E Team and Drilling team	Waste Management Plan
9.	Storage of materials (equipment, chemicals, fuel)	9.1	Accidental spillage during storage and handling of materials	Potential for contamination of soil & ground water	Impervious storage area, especially for fuel & lubricant, chemical, hazardous waste, etc.	Site Inspection	Construction & Drilling	OIL/Contractor	Spill Management plan
				Safety concerns for workers involved in handling of hazardous materials	Personal protective equipment to be provided to workers involving in handling of hazardous materials	Site Inspection	Construction & Drilling	OIL/Contractor	Health and Safety Plan



S No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
10.	Technical Emergencies	10.1	Probability of accidental leakage of gas/ liquid hydro-carbons due to failure of safety devices	Potential adverse impact on personnel, environment & assets	<p>Proper engineering controls to prevent leakage of sour gases</p> <p>Obtain an early warning of emergency conditions so as to prevent a negative impact on personnel, the environment, and assets</p> <p>Safeguard personnel to prevent injuries or loss of life by either protecting personnel from the hazard and/or evacuating them from the facilities</p> <p>Minimize the impact of such an event on the environment and the facilities by mitigating the potential for escalation and, where possible, containing the release</p> <p>Develop evacuation procedures to handle emergency situations.</p>	Site Inspection	Drilling	OIL/Contractor	Emergency Response Plan
11.	Dismantling of rig & associated machineries	11.1	Emission of noise during dismantling of rig	Temporary deterioration of ambient noise quality resulting in discomfort	All noise generating activities will be restricted during day time	Site Inspection	Well Decommissioning Phase	OIL/Contractor	Noise quality management plan
		11.2	Generation of waste during dismantling of rig	Temporary visual impacts	Storage of waste in designated areas only recyclable waste should be recycled through authorized	Site Inspection	Well Decommissioning Phase	OIL/Contractor	Waste Management Plan



No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
					water recycler				
		11.3	Disposal/spillage of spent oils & lubricants into environmental media	Contamination of soil resulting loss of soil living organism  Contamination of surface water resulting deterioration of surface water quality and aquatic ecosystem	Manage spills of contaminants on soil	Site Inspection and Record keeping	Well Decommissioning Phase	OIL/Contractor	Waste Management Plan
12.	Transportation of drilling facilities	12.1	Emission of gaseous air pollutant during transportation of drilling facilities	Temporary localized deterioration of air quality due to emission gaseous pollutants	Vehicle / equipment air emissions will be controlled by good practice procedures (such as turning off equipment when not in use); and  Vehicle / equipment exhausts observed emitting significant black smoke in their exhausts will be serviced/ replaced	Site Inspection and Record keeping	Well Decommissioning Phase	OIL/Contractor	Air quality management plan
		12.2	Fugitive emissions due to re-entrainment of dust during transport of drilling facilities	Temporary localized deterioration of air quality due to increase in SPM levels	Approach road to be sprinkled daily with water	Site Inspection	Well Decommissioning Phase	OIL/Contractor	Air quality management plan
		12.3	Emission of noise during transport of drilling facilities	Temporary deterioration of noise quality	Restrict all noise generating operations, except drilling, to daytime	Site Inspection	Well Decommissioning Phase	OIL/Contractor	Noise quality management plan

No	Activity	Ref	Aspect	Impact	Mitigation Measures	Monitoring	Timing/ Frequency	Responsible Party	Related Plans
					Restriction on unnecessary use of horns by trucks and vehicle in settlement area				

Handwritten signature and checkmark in blue ink.

## 6.0 Summary and Conclusion

The EMP has been made to assess the potential significant adverse environmental effects due to the proposed construction and drilling activities.

Mitigation measures have been proposed as part of EMP to minimize adverse environmental impacts, if any. Risk assessment includes Jet Fire and Vapour Cloud Explosion for blowout of wells. The existing Emergency Management Plan of OIL will be extended to this project, strengthened as necessary and implemented in the event of any emergency arising due to above mentioned risks.

The present impact assessment study indicates that the overall impact from the proposed project will be short to medium term, reversible, localised and are not expected to contribute significantly to the surrounding environment. Also, with the implementation of the pollution control and strengthen the existing environment management measures, these anticipated impacts due to proposed site preparation and drilling operation and decommissioning activities of the proposed project will be mitigated. Summary of impact significance without mitigation measures and with mitigation measures is presented at the table below.

### Summary of Impact Significance without and with Mitigation Measures

Impact	Impact significance without mitigation measures	Impact significance with mitigation measures
Aesthetic & visual	Moderate	Minor
Land Use	Negligible	-
Soil Quality	Moderate	Minor
Air Quality	Moderate	Minor
Noise Quality	Major	Moderate
Road & Traffic	Moderate	Minor
Surface Water Quality	Moderate	Moderate
Ground water resource	Minor	Minor
Ground Water Quality	Moderate	Minor
Terrestrial Ecology	Negligible	-
	Minor	Minor
	Major	Moderate
Aquatic Ecology	Moderate	Moderate
Livelihood & Income generation	Moderate	Moderate
Conflict with local people	Moderate	Moderate
Benefit to Local Enterprises	Positive	-
Employment Generation	Positive	-
Occupational health & safety	Moderate	Minor
Community health & safety	Moderate	Minor

OIL will also ensure that the environmental performances of all the activities are monitored throughout execution of the project during site preparation, drilling and decommissioning phases. Monitoring will be carried out for ambient air quality, stack emission, noise quality, quality of treated effluents, surface and groundwater qualities, waste generated and disposed etc. and verified that they meet the prescribed standards. OIL will continue to report environmental performance and submit monitoring reports regularly to statutory authorities.

The effective management system coupled with monitoring of environmental components and efforts for continual improvements will result in satisfactory environmental performance of the proposed oil and gas drilling and development project.

**THANKS YOU**

Annexure - C



ऑयल इंडिया लिमिटेड

( भारत सरकार का उद्यम )

**Oil India Limited**

(A Government of India Enterprise)

Health Safety & Environment Department

P.O. DULIAJAN-786602,

ASSAM, INDIA

Phone : 0374-2800542

Fax : 0374-2801796

Email: safety@oilindia.in

Ref. No.: S&E/E/21(B)/940

Date: 20.09.2023

**To**  
**The Member Secretary,**  
**Pollution Control Board, Assam,**  
**Bamunimaidam, Guwahati- 781021.**

**Sub:** Submission of Environmental Statement (Form-V) under Environment (Protection) Rules, 1986.

Sir,

With reference to the above subject, we are submitting herewith the Environmental Statement (Form-V) for the financial year ending 31<sup>st</sup> March, 2023 pertaining to the operations of Oil India Limited in the districts of Dibrugarh, Tinsukia, Sivsagar and Charaideo in Assam.

Thanking You,

Yours faithfully  
OIL INDIA LIMITED

(Ajit Chandra Haloi)  
Executive Director (HSE)  
For **Resident Chief Executive**

Encl: As above.

**Copy:**

1. Regional Executive Engineer,  
Pollution Control Board Assam,  
Back Side of ASTC Bus Station,  
Chowkidinghee, Dibrugarh,  
PIN: 786001.
2. Executive Engineer,  
Regional Laboratory cum Office,  
Pollution Control Board Assam,  
Melachakar, Sivsagar,  
PIN: 785640.

**FORM - V**  
**(See Rule 14)**  
**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE**  
**31<sup>st</sup> MARCH, 2023**

**PART - A**

(i) **Name and address of the owner/occupier of the industry operation or process.**

OIL INDIA LIMITED  
P.O. DULIAJAN  
DIST. DIBRUGARH  
ASSAM -786602.

**Note:** Environmental Statement (Form - V) is pertaining to the operations of Oil India Limited in the districts of Dibrugarh, Tinsukia, Sivasagar and Charaideo in Assam.

(ii) **Industry category:** Red - Oil and gas extraction (on-shore extraction through drilling wells)

(iii) **Production capacity - Units**

OIL's production target is fixed as per the Memorandum of Understanding (MoU) with Ministry of Petroleum and Natural Gas, Govt. of India, which varies from year to year.

Production details during F.Y. 2022-23:

- **Crude Oil:** 3.114 MMT.
- **Natural Gas:** 2809.214 MMSCM
- **LPG:** 32,100 MT.

(iv) **Year of establishment:**

OIL INDIA LTD. was formed in 1961 as a joint venture with M/S. Burma Oil Company, UK and on 14<sup>th</sup> Oct. 1981, OIL became a fully owned Govt. of India Enterprise.

(v) **Date of last Environmental Statement submitted:** 20.09.2022.

**PART - B**  
**WATER AND RAW MATERIAL CONSUMPTION**

(I) Water consumption m<sup>3</sup>/d:

S.No	Purpose	Water Consumption (m <sup>3</sup> / day)
1.	Process & Cooling	14473.7
2.	Domestic	16038.63
<b>TOTAL</b>		<b>30512.33</b>

Name of Products	Process water consumption per unit of product output	
	During F.Y. 2021-22	During F.Y. 2022-23
(1)	(2)	(3)
Hydrocarbon (Crude Oil, Natural Gas, LPG)	1.12 m <sup>3</sup> /MT (Approx.)	1 m <sup>3</sup> /MT (Approx.)

(II) Raw material consumption

*Name of raw materials	Name of products	Consumption of raw material per unit	
		During F.Y. 2021-22	During F.Y. 2022-23
No raw materials are used as Oil India Limited is engaged in Exploratory and development drilling activities & production of Crude Oil and Natural Gas. However, chemicals such as Bentonite are used for preparation of Water based drilling mud.			

**PART - C**

**POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT**

(Parameter as specified in the consent issued).

Pollutants	Quantity of Pollutants Discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	<p><b>NIL.</b></p> <p>There is no discharge of pollutants from drilling locations and Production Installations.</p> <ul style="list-style-type: none"> <li>Wastewater generated from drilling locations is treated in Effluent Treatment Plant (ETP) and reused back in the drilling operation.</li> <li>The formation water generated after separation from crude oil and</li> </ul>	<ul style="list-style-type: none"> <li>Quality of ETP treated water from the drilling locations is analyzed frequently. (Test report is enclosed as <b>Annexure - 1</b>).</li> <li>Quality of Formation water is analyzed frequently (Test report enclosed as <b>Annexure-</b></li> </ul>	<p>No variation is observed.</p> <p>All parameters of treated effluent and Formation water are within the permissible limits.</p>

	treatment is pumped back to the underground formation (depth greater than 1600 m) through formation water disposal wells.	<b>II)</b>	
(b) Air	No major air pollutants are emitted from Oil & Gas exploratory and development drilling and production activities except Stack Gas emissions at drilling locations and Production Installations & Flaring at Oil Collecting Stations.	Stack Gas and Ambient Air Quality (AAQ) monitoring is carried out frequently at drilling locations and Production Installations (Test report enclosed as <b>Annexure- III)</b>	No variation is observed.  All parameters of Stack Gas emissions and Ambient Air are within the permissible limits.

**PART - D**

**HAZARDOUS WASTES**

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Wastes	Category of Hazardous Waste as per Schedule - I of HW Rules, 2016	Total Quantity generated	
		During F.Y. 2021-22	During F.Y. 2022-23
a) From process	S.No. 2.2 Sludge containing Oil	9943 MT	4671.52 MT
	S.No. 5.1 Used or Spent Oil	60 KL	208 KL
	S.No. 33.1 Empty barrels/containers/liners contaminated with hazardous chemicals/ wastes	41569 Nos.	26616 Nos.
	S.No. 33.2 Contaminated cotton rags or other cleaning materials	3.7 MT	6.19 MT
b) From pollution control facilities	S.No. 33.5 Chemical sludge from waste water treatment	2600 KL	120.84 KL



**PART - E**  
**SOLID WASTES**

Solid Wastes	Total Quantity	
	During F.Y. 2021-22	During F.Y. 2022-23
(a) From process Drill Cuttings	23,000 m <sup>3</sup> (Approx.)	27,000 m <sup>3</sup> (Approx.)
(b) From pollution control facilities	NIL	
(c) (1) Quantity recycled or re-utilized within the unit.	N/A	
(2) Sold	N/A	
(3) Disposed	N/A	

**PART - F**

**PLEASE SPECIFY THE CHARACTERIZATION (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.**

**(I) Hazardous Wastes:**

Name of the Hazardous Waste	Quantity generated during F.Y. 2022-23	Disposal Practices
a) Sludge containing Oil	4671.52 MT	Sent to Sludge Processing Plant for oil recovery followed by Bioremediation
b) Used or Spent Oil	208 KL	Stored in barrels under covered shed and sold to authorized recyclers through auction
c) Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	26616 Nos	Sold to authorized recyclers through auction
d) Contaminated cotton rags or other cleaning materials	6.19 MT	Bioremediation
e) Chemical sludge from waste water treatment	120.84 KL	Disposed in HDPE lined pits

**(I) Solid Wastes:**

<b>Name of the Solid Waste</b>	<b>Quantity generated during F.Y. 2022-23</b>	<b>Disposal Practices</b>
a) Drill Cuttings	27,000 m <sup>3</sup> (Approx.)	Disposed in HDPE lined pits

**PART - G**

**IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION**

- Acoustic enclosures have been provided around all gensets to reduce noise levels.
- Recovery of drilling mud from drill cuttings by using a combination of Vertical Cutting Dryer (VCD) and a high-performance centrifuge.
- Wastewater generated from drilling locations is collected in HDPE lined pits, treated in Effluent Treatment Plant (ETP) with Reverse Osmosis unit and the treated effluent is reused back in the drilling operation.
- Formation water generated from Production Installations is treated in Effluent Treatment Plant (ETP) before disposal in the abandoned/ water disposal wells.
- Processing of oily sludge for recovery of Crude oil and further treatment of sludge through Bioremediation.
- Construction of central concrete pit for disposal of waste mud.
- Treatment of Biomedical waste through incinerator.
- Plantation of 50,000 saplings was carried out at 8 nos. of abandoned OIL well sites.

**PART - H**

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

- MoU with District Administration, Tinsukia for treating the legacy waste of Tinsukia Municipality through the process of Biomining.
- Proposal for construction of Community Sewage Treatment Plant (STP) at Duliajan.
- MoU with Digboi Forest division, Assam for carrying out afforestation in 100 Ha of degraded forest area.
- MoU with IIT Guwahati to study the feasibility of using treated drill cutting as a building material.

**PART - I**

**ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT.**

\*\*\*\*\*

Report No.: ENV/ARDS/22-23/S-07/WW-03/01  
Date : 22/03/2023

Order No.: Telecon  
Date :

Report Issued To : **ADITI R & D SERVICES**  
Nilesh Buisness Complex, A. T. Road, Digboi, Assam

**TEST RESULTS**

Sample Ref. No. : ARDS/2023/S-07/1303/01      Sample Source : Rig S#7/MPT, Sonari      Sample Type : ETP Treated Water (RO)  
Collected On : 13-03-2023      Received On : 14-03-2023      Collected By : ETP Supervisor, ARDS

SL No.	Parameters	Results	Limit [G.S.R. 176(E), 02.04.1996]
1	Colour	Colourless	Colourless
2	Odour	Odourless	Odourless
3	pH value	7.16	5.5 - 9.0
4	Temperature, °C	25.6	40 °C
5	TSS, mg/l	3.9	100
6	BOD, mg/l	<1.0	30
7	COD, mg/l	18	100
8	Chlorides (as Cl), mg/l	3.6	600
9	Sulfates (as SO <sub>4</sub> ), mg/l	<1.0	1000
10	TDS, mg/l	61	2100
11	Sodium, (%)	1.6	60
12	Oil & Grease, mg/l	<4.0	10
13	Phenolic Compounds as C <sub>6</sub> H <sub>5</sub> OH, mg/l	<0.001	1.2
14	Cyanides, mg/l	<0.001	0.2
15	Fluorides (as F), mg/l	<0.01	1.5
16	Sulfide (as S), mg/l	<0.01	2.0
17	Chromium (Cr <sup>6+</sup> ), mg/l	<0.001	0.1
18	Chromium (Total), mg/l	<0.001	1.0
19	Copper, mg/l	<0.001	0.2
20	Lead, mg/l	<0.001	0.1
21	Mercury, mg/l	<0.001	0.01
22	Nickel, mg/l	<0.001	3.0
23	Zinc, mg/l	<0.01	2.0

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi - 786171, Assam.

**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIP), NDT, Hydraulic Testing, Chartered Engineer Services etc.

Annexure - II



ऑयल इंडिया लिमिटेड  
Oil India Limited  
A Government of India (Central) Registered Office: Duliajan, Assam

CHEMICAL LABORATORY

(An ISO 9001 : 2015 Certified Laboratory)  
CHEMICAL DEPARTMENT, DULIAJAN 786 602, ASSAM, INDIA  
(Phone : 91-374-2800439, Fax : 91-374-2801680/2800633.  
Email : chemical@oilindia.in)

For internal use only

Ref. No.: Chem/Ana/Misc/466/DJN/23

Date: 23.03.2023 4 MAR 2023

CGM - PSS

21/03/2023

Attn.: Prajesh Das, Dy.CE(PSS) & IM -STF

Sub: WATER SAMPLE ANALYSIS REPORT OF STF MADHUBAN

Ref.: PSS/ STF-35/2022-23/434,

Date:- 21.03.2023

Reference above, please find below the test results of the water sample forwarded to us from your end for laboratory testing.

Characteristics	Unit	Clarified water sample	Test Method/ Instrument used
pH	-	8.4	Metrohm pH meter
TSS	mg/l	56	Gravimetric method
TDS	mg/l	4100	Gravimetric method
Salinity as NaCl	mg/l	2100	Titration with silver nitrate
Oil & Grease	mg/l	Nil	Horiba oil content analyser
Turbidity	NTU	6.02	Turbidity meter

Sample details :

The above clarified water sample was collected by PSS Department from STF Madhuban on 21.03.2023 & received at Analytical & Environmental laboratory on 21.03.2023 for necessary laboratory testing.

Note: Parameters were tested as per requirement of the customer mentioned in the memo.

Tested by :- WR/PJK/PS/NC

Pranab Jyoti Das

Suptdg. Chemist (Lab)

For DGM-Chemical (Lab)

Copy : Analytical & Environmental sec. file

Chem Lab/Ana/Deptt/Vector/04

### STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2022-23/188J
"M/s OIL INDIA LIMITED"		Report Date	: 31.01.2023
Duliajan, Dibrugarh, Assam-786602		Nature of Sample	: Stack Emission
		Sample Mark	: GCS TENGAKHAT
		Sample Number	: MSKGL/ED/2022-23/12/00398
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date
14.12.2022	17.12.2022	17.12.2022	24.12.2022

#### ANALYSIS RESULT

<b>A.</b>	General information about stack :	: <b>GB-1</b>		
1.	Stack connected to	: GAS COMORESSOR		
2.	Emission due to	: NG		
3.	Material of construction of Stack	: MS		
4.	Shape of Stack	: Circular		
5.	Whether stack is provided with permanent platform & ladder	: Yes		
6.	DG capacity	: NIL		
<b>B.</b>	Physical characteristics of stack :			
1.	Height of the stack from ground level	: 3.6576 m		
2.	Diameter of the stack at sampling point	: 0.2032 m		
3.	Area of Stack	: 0.03241 m <sup>2</sup>		
<b>C.</b>	Analysis/Characteristic of stack:			
	i. Fuel used : NG			
<b>D.</b>	Result of sampling & analysis of gaseous emission	<b>Result</b>	<b>Limit as per CPCB</b>	<b>Method</b>
1.	Temperature of emission (°C)	187	...	USEPA Part 2, 25.09.1996
2.	Barometric Pressure (mm of Hg)	762.0	...	USEPA Part 2, 25.09.1996
3.	Velocity of gas (m/sec)	24.4	...	USEPA Part 2, 25.09.1996
4.	Quantity of Gas Flow (Nm <sup>3</sup> /hr)	1854	...	USEPA Part 2, 25.09.1996
5.	Concentration of Oxygen (%v/v)	13.6	...	IS:13270 :1992 Reaff, 2014
6.	Concentration of Carbon Monoxide (mg/Nm <sup>3</sup> )	25.1	...	IS:13270 :1992 Reaff, 2014
7.	Concentration of Carbon Dioxide (%v/v)	5.8	...	IS:13270 :1992 Reaff, 2014
8.	Concentration of Sulphur Dioxide (mg/Nm <sup>3</sup> )	20.5	...	USEPA-29, 25/06/1996
9.	Concentration of Nitrogen Oxide (ppmv)	69.3	...	USEPA Part-6, 25/09/1996
10.	Concentration of Lead (mg/Nm <sup>3</sup> )	<0.005	...	USEPA Part-7, 12/03/1996 & USEPA 18-25.09.1996
11.	Concentration of Particulate matter (mg/Nm <sup>3</sup> )	35.9	...	USEPA Part-17, 16/08/1996
12.	Concentration of Hydrocarbons (ppm)	13.46	...	USEPA 18-25.09.1996
<b>E.</b>	Pollution control device :	<b>Remarks: Nil</b>		
	Details of pollution control devices attached with the stack : Nil			

Analyzed By:

Prepared By:

Authorized Signatory

For Mitra S.K. Private Limited

Signature

Name : Mr. Dipankar Mazumdar

Designation : Executive Chemist

Signature

Name : Mr. Dhrobajyoti Das

Designation : Assistant Chemist

Signature

Name : Mr. Gaudol Hasque

Designation : Branch Manager

- The results relate only to the item(s) tested.
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- Our Lab is Approved by NABL & MOEF, Lab Address : P-48 Udayan Industrial Estate, 3 Paglodanga Road Kol-700013

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Approved by

Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,  
 Oil India Ltd., Duliajan, Assam

## Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2022-23/1463			
"M/s OIL INDIA LIMITED", Duliajan, Dibrugarh, Assam-786602		Report Date : 30.12.2022			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2022-23/1200252			
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895		Sampling Location : GCS TENGAKHAT			
Date of Sampling		GPS Reading : N 27°23'55", E 95°06'56"			
15.11.2022	Sample Received Date	Analysis Start Date	Analysis Complete Date		
	18.11.2022	18.11.2022	25.11.2022		
Environmental Conditions During Sampling & Transport Condition : Temperature : 26°C, Rain fall : NO					
<b>Analysis Result</b>					
Sl. No.	Test Parameter	Method	Unit	Results	CPCB Limit
1	Particulate Matter ( PM <sub>10</sub> )	IS : 5182 (Part-23)-2006	(µg/m <sup>3</sup> )	59.2	100
2	Particulate Matter ( PM <sub>2.5</sub> )	IS : 5182 (Part-24)	(µg/m <sup>3</sup> )	28.1	60
3	Sulphur Dioxide ( SO <sub>2</sub> )	IS : 5182 (Part-2)-2001	(µg/m <sup>3</sup> )	<6.0	80
4	Nitrogen Dioxide ( NO <sub>2</sub> )	IS : 5182 (Part-6)-2006	(µg/m <sup>3</sup> )	16.8	80
5	Carbon Monoxide ( CO )	IS 5182 : (Part-10) :1999	(mg/m <sup>3</sup> )	0.59	2
6	Ozone ( O <sub>3</sub> )	IS:5182 (Part-IX)-1974 Reaffirmed-2019	(µg/m <sup>3</sup> )	<20.0	180
7	Ammonia ( NH <sub>3</sub> )	IS 5182 (Part 25) : 2018	(µg/m <sup>3</sup> )	<10.0	400
8	Lead ( Pb )	USEPA IO-3.4	(µg/m <sup>3</sup> )	<0.01	1
9	Nickel ( Ni )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<0.5	20
10	Arsenic ( As )	USEPA IO-3.4	(ng/m <sup>3</sup> )	<1.0	6
11	Benzene ( C <sub>6</sub> H <sub>6</sub> )	IS 5182 : (Part 11) :2006	(µg/m <sup>3</sup> )	<4.2	5
12	Benzo(a)Pyrene ( BaP )	IS 5182 : (Part 12) :2004	(ng/m <sup>3</sup> )	<0.5	1
13	Mercury ( Hg )	USEPA IO-5.0	(µg/m <sup>3</sup> )	<0.002	---
14	Methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	1.38	---
15	Non-methane (Hydrocarbon)	IS 5182 : (Part 17)	ppm	<0.5	---
16	Total Hydrocarbon	IS 5182 : (Part 17)	ppm	1.38	---
17	Volatile Organic Compounds (VOC)	IS 5182 : (PART-11):2006	(µg/m <sup>3</sup> )	<4.2	---
Limit as per CPCB notification, New Delhi, 16th Nov, 2009, for Ambient air quality					

Analyzed By:

Signature

Name

Designation.

*Dipankar Misumdar*  
Mr. Dipankar Misumdar  
Executive Chemist

Prepared By:

Signature

Name

Designation.

*Dhrubajyoti Das*  
Mr. Dhrubajyoti Das  
Assistant Chemist

Authorized Signatory  
For Mitra S.K. Private Limited

Signature

Name

Designation

*Tajmool Haque*  
Tajmool Haque  
Deputy Manager

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*Uttam Proadhan*

Approved by  
Uttam Proadhan

Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Duliajan, Assam



**Pollution Control Board:: Assam**  
**Bamunimaidam; Guwahati-21**  
 (Department of Environment & Forests:: Government of Assam)  
 Phone: 0361-2652774 & 3150318; Fax: 0361-3150319  
 Website: [www.pcbassam.org](http://www.pcbassam.org)



No. WB/T-311/21-22/324

Dated Guwahati the, 13<sup>th</sup> October, 2022

**FORM – 2**  
**[See Rule 6(2)]**

**[Grant of Authorization under the Provision of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016]**

1. Number of Authorisation and date of issue : No. WB/T-311/21-22/ dtd. .10.2022
2. Reference of application (No. and date) : 1292415
3. M/s OIL INDIA LIMITED, Percy Evans Road, Duliajan, Dibrugarh, Assam-786602 is hereby granted an authorisation based on the signed inspection report for Generation, storage and transportation of Hazardous or Other wastes or both.

**DETAILS OF AUTHORISATION**

Sr. No.	Category of Hazardous Waste as per the Schedules-I, II & III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity (ton/annum)	Mode of Management
1.	Schedule-I, Sl.No. 2.2 Sludge containing oil	Generation, Storage & Transportation	4000 T/Annum	Transportation to authorized actual user/ Disposal agencies/ Captive treatment through Bio-remediation as per prescribed norms after recovery of oil
2.	Schedule-I, Sl.No. 33.2 Contaminated cotton rags or other cleaning materials	Generation, Storage & Transportation	300 T/Annum	Transportation to authorized Disposal agencies for Incineration/ Co-Processing in cement plant.
3.	Schedule-I, Sl.No. 33.1 Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	Generation, Storage & Transportation	15000 Nos./Annum	Transportation to authorized actual user/Recyclers
4.	Schedule-I, Sl.No. 5.1 Used or spent oil	Generation, Storage & Transportation	500 KI /Annum	Transportation to authorized actual user/Recyclers
5.	Schedule-I, Sl.No. 35.3 Chemical sludge from waste water treatment	Generation, Storage & Transportation	7000 T/Annum	Transportation to authorized actual user/Disposal agencies/ Co-processing in cement plant.

4. This authorisation shall be in force in force for the period of five years up to 31.03.2027 unless otherwise revoked or withdrawn within this period.

5. The authorisation is subject to the following general and specific conditions:

**A. GENERAL CONDITIONS OF AUTHORISATION:**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. The agencies should ensure that the barrels are decontaminated before collection in the premises of the occupier / generator equipped with adequate effluent treatment plant.
5. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorization
6. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time



7. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time
8. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
9. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
10. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
11. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
12. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
13. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
14. An application for the renewal of an authorisation shall be made as laid down under these Rules.
15. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
16. Annual return shall be filed by June 30<sup>th</sup> for the period ensuring 31<sup>st</sup> March of the year.

**B. SPECIFIC CONDITIONS:**

1. The unit shall maintain the records of Hazardous & Other Wastes in Form-3 under provision of Rules 6(5), 13(7), 14(6), 16(5) & 20(1)
2. The Unit Shall Provide The Transporter With The Relevant information In Form 9 Regarding The Hazardous Nature Of The Wastes And Measures To Be Taken In Case Of An Emergency
3. The unit shall submit Annual Returns in Form-4 to State Pollution Control Board by 30<sup>th</sup> June of every year for the preceding period April to March.
4. The unit shall prepare 6 (six) copies of the manifest in Form-10 as per Rules-19(1) for every transit of consignment of hazardous Waste under this authorization.
5. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment, Forests & Climate Change, GOI, New-Delhi & Central Pollution Control Board, Delhi shall be complied.
6. The unit shall submit an Environmental Statement for the financial year ending on 31<sup>st</sup> March, in Form-V of the Environment (Protection) Rules, 1986 before 30<sup>th</sup> September every year.
7. Any occupier handling hazardous or other wastes and operator of the treatment, storage and disposal facility shall ensure that the hazardous and other wastes are packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time. The labelling shall be done as per Form 8.
8. The unit shall submit the report on any accident occurs at their facility immediately to the state Pollution Control Board, in Form-11 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
9. The transport of the hazardous and other waste shall be in accordance with the provisions of Rule 18 of Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
10. The unit shall install a display board in the prescribed format in accordance with PCBA notification vide WB/T-237/ 19-20/95 dated 17.08.2020 and regularly update the same.

(Shantanu Kr. Dutta)  
Member Secretary

Dated Guwahati the, 13/10 Oct, 2022

Memo No. WB/T-311/21-22/329-A  
Copy to:

1. M/s OIL INDIA LIMITED, Percy Evans Road, Duliajan, Dibrugarh, Assam-786602 for information & compliance of conditions

(Shantanu Kr. Dutta)  
Member Secretary