



**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



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

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





**HSE Department**  
Oil India Limited  
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 गुर्याल  
मुख्य महासंचालक (एचएसई) - विभाग  
नोडल अधिकारी (ईओ/एफसी/एनईएफएल)  
ऑयल इंडिया लिमिटेड

- **Name of the Project:** Exploratory Drilling of 1 Well at Dumduma-Pengry Area, District Tinsukia, Assam by M/s Oil India Limited.
- **Clearance L. No and date:** J-11011/1251/2007 - IA II (I) Dated 1<sup>st</sup> November, 2011
- **Period of Compliance Report:** April 2023 to September 2023.
- **Present Status:** No drilling activity was carried out during the above period.

**General Conditions:**

SI No.	CONDITIONS	COMPLIANCE STATUS
I.	The project authorities must strictly adhere to the stipulations made by the Assam Pollution Control Board (APCB), State Government and any other statutory authority.	<b>Complied.</b> Necessary consent from Pollution Control Board, Assam was obtained for the drilled well.
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.	<b>Complied.</b> No additional wells were drilled against the EC granted by MoEF&CC.  The user agency (OIL) has already submitted Environmental Clearance application for its expansion activities in this area wherever applicable.
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.	<b>Complied.</b> Permission under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2000 as amended subsequently from Chief Inspectorate of Factories, Chief Controller of Explosives (CCOE), Fire Safety Inspectorate are not applicable for drilling wells. However, onsite and offsite Emergency response plan is in place under the compliance of MSIHC rule. Further permission from CCOE for the major tank farms area is obtained wherever applicable.
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 (night time).	<b>Complied.</b> The overall noise levels in and around the plant area were kept within permissible limits by taking necessary noise control measures.
V.	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.	<b>Complied.</b> Copy of the EC was published on OIL's website under the link <a href="https://www.oil-india.com/Environmental.aspx">https://www.oil-india.com/Environmental.aspx</a> .

VI.	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 APSPCB. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , HC (Methane & Non-methane), VOCs (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.	<b>Complied.</b> Ambient Air monitoring was carried out. Ambient air quality was monitored for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>x</sub> , NO <sub>x</sub> , Methane & Non-methane HC, within the premises.
VII.	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 APSPCB. The Regional Office of this Ministry / CPCB / APCB shall monitor the stipulated conditions.	<b>Complied</b> EC compliance report for the period October 2022 to March 2023 was submitted to IRO - Guwahati, Zonal Office CPCB, Shillong and, Chairman - Pollution Control Board Assam vide L.No. S&E/E/43C-1/561 dated 29.05.2023. Also, a copy of the EC and Six-monthly compliance report are uploaded to OIL website under the link <a href="https://www.oil-india.com/Environmental.aspx">https://www.oil-india.com/Environmental.aspx</a>
VIII.	The environmental statement for each financial year ending 31 <sup>st</sup> 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.	<b>Complied</b> Environment Statement (Form – V) for the F.Y. 2022-23 was submitted to Pollution Control Board, Assam vide No. S&E/E/21(B)/940 dated 20.09.2023. Copy of the same is enclosed as <b>Annexure – C</b> .
IX.	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 APSPCB 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.	<b>Complied.</b>
X.	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.	<b>Will be Complied.</b>

**Specific Conditions:**

Sl No.	CONDITIONS	COMPLIANCE STATUS
I.	As proposed, only exploratory well (1 No.) shall be drilled. No additional wells shall be drilled without prior permission from this Ministry.	<b>Complied.</b> As stated in the Environment Clearance only 01 Nos. exploratory well was drilled.
II.	No drilling of well and any construction work shall be carried out in forest land.	<b>Complied.</b> No drilling was carried out in forest land.
III.	Permission should be obtained from the State Forest Department regarding the impact of the proposed drilling on the surrounding reserve forest viz. Telpani RF.	<b>Complied.</b> All the drilled wells were located outside forest area. Therefore, no forest clearance as well as forest impact certificate were taken from the forest department.
IV.	Drilling site shall not be close to villages, schools etc.	<b>Complied.</b> The well site was away from schools, villages.
V.	Prior clearance shall be from the Standing Committee of the National Board for Wildlife regarding Wildlife Sanctuary (Dihing Patkai).	<b>Complied.</b> No drilling was carried out within the 10 Km ESZ of Dehing Patkai National Park.
VI.	Ambient air quality shall be monitored near the closest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, CH <sub>4</sub> , HC, Non-methane HC etc.	<b>Complied.</b> Ambient Air Quality monitoring was carried out as per NAAQS, 2009.
VII.	The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.	<b>Complied.</b> Flare system was not required in the site.  However, wherever required company has installed the non-luminous flare.
VIII.	The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure shall be provided to DG sets and proper stack height shall be provided as per CPCB guidelines.	<b>Complied.</b> Acoustic enclosures were provided around DG sets and also adequate Stack Height is provided
IX.	Mercury shall also be analyzed in air, water and drill cuttings twice during drilling period.	<b>Complied.</b>
X.	Approach road shall be made pucca to minimize generation of suspended dust.	<b>Complied.</b>
XI.	Total fresh water requirement shall not exceed 42m <sup>3</sup> /day/well and prior permission shall be obtained from the concerned agency.	<b>Complied.</b>

XII.	The company shall construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system shall be created for oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.	<b>Complied.</b>
XIII.	Drilling wastewater including drill cuttings wash water shall be collected in disposal pit lined with HDPE lining evaporated or treated and shall comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill shall be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF shall be submitted to Ministry's Regional Office at Shillong.	<b>Complied.</b> Drilling wastewater was collected in HDPE lined pits.  As there is no TSDF in the North Eastern Region, therefore membership could not be obtained.
XIV.	Good sanitation facility shall be provided at the drilling site. Domestic sewage shall be disposed off through septic tank/ soak pit.	<b>Complied.</b> Domestic sewage is disposed through adequate septic tank and soak pits.
XV.	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	<b>Complied.</b> Oil spillage prevention and mitigation plan is in place. However, M/s OIL is equipped with technology which have developed consortium of bacteria capable of digesting the entire range of hydrocarbon. Spent oil is disposed through PCBA authorised recyclers.
XVI.	The company shall comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30 <sup>th</sup> August, 2005.	<b>Complied.</b> Disposal of Solid waste, drill cuttings and drilling fluids are carried out as per the guidelines notified vide GSE.546 (E) dated 30.08.2005.
XVII.	The Company shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare shall be explored. At the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.	<b>Complied.</b>  Each drilling site of M/s OIL has fixed firefighting system and portable fire extinguisher are kept in accordance with OISD std 189. All personal posted in site are trained in firefighting. Hot jobs are controlled through permit system i.e., "Hot work permit" system. Measures to prevent fire hazards, containing oil spill and soil remediation have been taken. Flaring of gases has been done as per OISD standard. Since the drilling well did not produce any hydrocarbon the question of flaring did not arise.

XVIII.	The company shall develop a contingency plan for H <sub>2</sub> S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H <sub>2</sub> S detectors in locations of high risk of exposure along with self containing breathing apparatus.	<b>Complied.</b> Contingency Plan for H <sub>2</sub> S release was in place. OIL never encountered H <sub>2</sub> S and no such evidence exists in our field of operation. However, H <sub>2</sub> S gas detector and Self Containing Breathing Apparatus (SCBA) were kept available to meet the emergency situation, if any.
XIX.	The Company should carry out long-term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected should be submitted six monthly to the Ministry and its Regional Office at Shillong.	<b>Complied.</b> OIL conducted the subsidence study through ISRO-NRSC (R&D facility of ISRO) The study took almost three years to complete the study & prepared the report. The study does did not reveal any delineate and subsidence in the oil fields.
XX.	Blow Out Preventor (BOP) system shall be installed to prevent well blowouts during drilling operations. BOP measures during drilling shall focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.	<b>Complied.</b> Appropriate Blow out preventer (BOP) system having a set of Annular and RAM BOP is installed to prevent well blow out during drilling operation. Function test of BOPs are carried out periodically and care is taken to maintain the hydrostatic pressure in the well bore during drilling, logging and other well operation by maintaining proper mud weight.
XXI	Emergency Response Plan (ERP) shall be based on the guidelines prepared by OISD, DGMS and Govt. of India.	<b>Complied.</b> OIL has site-specific Emergency plan and contingency plan and Disaster Management Plan (DMP) based on relevant and realistic emergency scenarios.
XXII.	The company shall take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site shall be restored the area in original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.	<b>Complied.</b> OIL has formulated a well –defined and plausible abandonment and restoration procedure which is been followed in the event of decision taken to abandon the well.
XXIII.	Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.	<b>Complied.</b>
XXIV.	In case the commercial viability of the project is established, the Company shall prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.	<b>Complied.</b> For Development as well as expansion activities the user agency (OIL) has already submitted Environment Clearance application.

XXV	Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office at Shillong.	<b>Complied</b> Restoration of well plinth has been done completely as per OIL's Well Abandonment, Site Restoration and Reclamation policy
XXVI	Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Shillong.	<b>Complied.</b> Cuttings were analysed through CSIR-NEIST.
XXVII	Company shall prepare and circulate the environmental policy.	<b>Complied.</b>
XXVII I	Company shall prepare operating manual in respect of all activities. It shall cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be created at each level of the management. All the schedules and results of environmental monitoring shall be available at the project site office.	<b>Complied.</b> Standard operating procedure for drilling operation covering safety and environment aspect of operations have been made available at the site. Safe work practices are also made available at site. Regular safety and environment training are imparted to the employees by various training institutions in house as well as by outside recognised institutes.
XXIX	Base and side of Drill cutting storage pits and supernatant storage pit shall be provided with HDPE lining. Overflow channel and oil grease trap facility shall be provided.	<b>Complied.</b> All pits used for storage of drill cuttings & Effluent are provided with HDPE lining.
XXX	Chemical characteristics and toxicity in respect of amine and all other chemicals should be found out and monitoring arrangement should be made. A copy of report should be sent to the Ministry's Regional Office at Shillong.	<b>Complied.</b> The toxicity study was carried out during the time project execution period.
XXXI	Company shall ensure good housekeeping at the drilling site.	<b>Complied.</b>
XXXII	Company shall have own Environment Management Cell having qualified persons with proper background. Full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.	<b>Complied.</b> OIL has Environment Cell along with laboratory facilities to carry out environmental management and monitoring functions. Details are enclosed as <b>Annexure – A.</b>

**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

S.No	Content
1.0	<b>INTRODUCTION</b>
2.0	<b>Environmental Management Plan</b>
3.0	<b>IMPACT ASSESSMENT</b>
	4.1 Air Quality
	4.2 Noise Quality
	4.3 Soil Quality
	4.4 Water Quality and Hydrogeology
	4.5 Biological Environment
	4.6 Socio-Economic Environment
	4.7 Impact on Community Health & Safety
4.0	<b>DETAIL ENVIRONMENTAL MANAGEMENT PLAN</b>
	5.1 Air Quality Management Plan
	5.2 Noise Management Plan
	5.3 Soil Quality Management Plan
	5.4 Surface Water Quality Management Plan
	5.5 Ground Water Quality Management Plan
	5.6 Waste Management Plan
	5.7 Wildlife Management Plan
	5.8 Road Safety & Traffic Management Plan
	5.9 Occupation Health & Safety Management Plan
	5.10 Management of Social issues and concerns
	5.11 Emergency Response Plan
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.**



### 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 as 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 Teamand 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				

 

## 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	<b>NIL.</b> There is no discharge of pollutants from drilling locations and Production Installations. <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 - I</b>).</li> <li>Quality of Formation water is analyzed frequently (Test report enclosed as <b>Annexure-</b></li> </ul>	No variation is observed.  All parameters of treated effluent and Formation water are within the permissible limits.

	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)

<b>Hazardous Wastes</b>	<b>Category of Hazardous Waste as per Schedule - I of HW Rules, 2016</b>	<b>Total Quantity generated</b>	
		<b>During F.Y. 2021-22</b>	<b>During F.Y. 2022-23</b>
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  
Collected On : 13-03-2023

Sample Source : Rig S#7/MFT, Sonari  
Received On : 14-03-2023

Sample Type : ETP Treated Water (RO)  
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.



ऑयल इंडिया लिमिटेड  
Oil India Limited  
(An ISO 9001:2015 Certified Laboratory)  
Registered Office: Duliajan, Assam

Annexure - II

## 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 24.03.2023

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

ChemLab/Ana/Dept/Env/Sec/4

## STACK GAS MONITORING REPORT

Name & Address of the Customer		Report No.	: MSK/2022-23/1881
"M/s OIL INDIA LIMITED"  Duliajan, Dibrugarh, Assam-786602		Report Date	: 31.01.2023
		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

General information about stack :		: GB-1		
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		
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>		
Analysis/Characteristic of stack:				
I. Fuel used : NG				
D.	Result of sampling & analysis of gaseous emission	Result	Limit as per CPCB	Method
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
E.	Pollution control device :	Remarks: Nil		
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. : Executive Chemist

Designation. : Executive Chemist

Signature \_\_\_\_\_

Name \_\_\_\_\_

Name : Mr. Dhruvajyoti Das

Designation: : Assistant Chemist

**Signature**

Name \_\_\_\_\_

**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 Udayam Industrial Estate 3 Poglodungu Road Kol-700013

Head Office: Shreeki 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@mltrask.com](mailto:info@mltrask.com) Website: [www.mltrask.com](http://www.mltrask.com)

Approved by \_\_\_\_\_

Uttam Prodhan

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

### Ambient Air Quality Monitoring Report

Name & Address of the Customer :		Report No. : MSK/2022-23/1463			
"M/s OIL INDIA LIMITED", Dulajjan, Dibrugarh, Assam-786602		Report Date : 30.12.2022			
		Sample Description : Ambient Air			
		Sample Number : MSKGL/ED/2022-23/1200252			
		Sampling Location : GCS TENGAKHAT			
Ref. No.: W.O. NO.- 8125981 of Contract No. 6116895		GPS Reading : N 27°23'55", E 95°06'56"			
Date of Sampling	Sample Received Date	Analysis Start Date	Analysis Complete Date		
15.11.2022	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, 18th Nov, 2009, for Ambient air quality

Analyzed By:

Signature

Name

Designation

Mr. Dipankar Mazumdar  
Executive Chemist

Prepared By:

Signature

Name

Designation

Mr. Dhrubajyoti Das  
Assistant Chemist

Authorized Signatory

For Mitra S.K. Private Limited

Signature

Name

Designation

Tajmool Haque  
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: Shreechi 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

Tulsi

Approved by  
Uttam Prodhan

Suptdg. Research Scientist, R&D Dept.,  
Oil India Ltd., Dulajjan, 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-311/21-22/529

Dated Guwahati the. 13/10 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, Duliagan, 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**

Sl. 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 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

m/s OIL INDIA LIMITED



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

138/43  
(Shantanu Kr. Dutta)  
Member Secretary