



**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Issued by the State Environment Impact Assessment**  
**Authority(SEIAA), Bihar)**

To,

The CHIEF GENERAL MANAGER  
HSE, FRONTIER BASINS, ONGC, DEHRADUN  
I/C HSE, FRONTIER BASINS, ONGC, GANGA BUILDING, IDT CAMPUS,  
KAULAGARH ROAD, DEHRADUN -248195

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/BR/IND2/253126/2022 dated 27 May 2022. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC22B002BR124669
2. File No.	SIA/1(b)/2037/2022
3. Project Type	New
4. Category	B2
5. Project/Activity including Schedule No.	1(b) Offshore and onshore oil and gas exploration, development & production
6. Name of Project	Exploratory drilling of One well in OALP BLOCK GV-ONHP-2021/1
7. Name of Company/Organization	HSE, FRONTIER BASINS, ONGC, DEHRADUN
8. Location of Project	Bihar
9. TOR Date	N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 03/08/2022

(e-signed)  
**Mr. Sudhir Kumar**  
**Member Secretary**  
**SEIAA - (Bihar)**

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*



**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, BIHAR**

**F. No.:- SIA/1(b)/2037/2022**

**Sub: Proposed Commercial Exploratory drilling of 2 two well in OALP BLOCK GV - ONHP-2021/1 at Village:- Malinagar, Tehsil:- Kalyanpur, District:- Samastipur, State:- Bihar, by M/s HSE, FRONTIER BASINS, ONGC, DEHRADUN- Reg. Environmental Clearance.**

- Reference:-**
1. MoEF&CC Proposal No. - SIA/BR/IND2/253126/2022 & SEIAA File No.:- SIA/1(b)/2037/2022
  2. Minutes of the SEAC meeting held on 02-07-2022.
  3. Minutes of the SEIAA meeting held on 23-07-2022.

**Sir,**

This has reference to your online application for the above proposal of M/s HSE, FRONTIER BASINS, ONGC, DEHRADUN Project Proposed Commercial Exploratory drilling of 2 two well in OALP BLOCK GV - ONHP-2021/1 at Village:- Malinagar, Tehsil:- Kalyanpur, District:- Samastipur, State:- Bihar, The details of the projects are as follows:-

Sl. No.	Item		Details		
1.	Name of the project		Proposed Commercial Exploratory drilling of 2 two well in OALP BLOCK GV - ONHP-2021/1 at Village:- Malinagar, Tehsil:- Kalyanpur, District:- Samastipur, State:- Bihar,		
2.	S. No. in the Schedule		1 (b)		
3.	Type of Project		Offshore and onshore oil and gas exploration, development & production		
4.	Description of the Contract Area				
	Project Region	Block Title	Original Block Area (Km2)		Remarks
	Ganga Basin	GV-ONHP-2021/1 OALP-VI Block	308.32 sq. kms		Coordinates of the block provide in Tiable 1
5.	Coordinates of GV-ONHP-2021/2 OALP Block		Point	Longitude	Latitude
			1	85 <sup>0</sup> 50''0.000'' E	25 <sup>0</sup> 50'0.000'' N
			2	85 <sup>0</sup> 40'0.000'' E	25 <sup>0</sup> 50'0.000'' N
			3	85 <sup>0</sup> 40' 0.000'' E	26 <sup>0</sup> 00'0.000'' N
			4	85 <sup>0</sup> 50'0.000'' E	26 <sup>0</sup> 50'0.000'' N
6.	Location Details of the wells				
	Well Location		Coordinates	To be drilled within the co-ordinates of OALP Block as provided.	



	Well Depth	Proposed	4200m and 3500m
	No. of Wells to be drilled	2	
	Qty. of drilling fluid	Approx. 450 m <sup>3</sup> /Well	
	Qty. of cuttings m <sup>3</sup> /Well	Approx. 2-3 m <sup>3</sup> /day	Based on target depth of well (Approx-465m <sup>3</sup> )/well
	Qty. of drilling waste m <sup>3</sup> /Well	Approx. 465 m <sup>3</sup>	Based on target depth of well
	Location details	25° 59' 47.8" N, 25° 57' 26" N & 85° 41' 28.2" E, 85° 50' 55" E	To be drilled within the co-ordinates of NELP Block as provided.
	HC reserve (initial in place)	Estimated as 38210.50 MMt/MM m <sup>3</sup>	Based on techno-economic analysis
	Formation pressure		Hydrostatic
	Test flaring, duration		2-3 days (Flare details confined to pit).
7.	<b>Details of drilling rig proposed to be deployed</b>		
	Type of Rig	Electrical Drilling Rig	
	Drilling Mud Composition	Water Based	
	Power generator type and Nos.	Diesel Driven	
	Diesel Consumption	5-6 KL per day	
	Qty. of fresh water requirement and source	20-25 m <sup>3</sup> /day By tankers through contractor.	
	Manpower on Rig	30 per shift of 12 hrs. Two shifts /day	
	Details of solid handling system on rig	Shale Shaker, De-sander, Desilter, Mud Cleaner	
	Details of sewerage treatment facility, if any	ETP	
	Waste pit availability and size	30'x33'x5' : 2 no 38'x33'x5' : 1 no 23'x20'x5' : 1 no	
8.	Oil Pit availability and size	3'x3'x4' : 1no.	
	Original Block Area (km <sup>2</sup> )	308.32.sq. Kms.	
9.	Total Cost of Project	<b>Total Project Cost - 220 Crores</b>  <b>Environment Management Plan - ` 2.74 Crores</b> (Capital Expenditure Cost-2.6 Crores,) (Recurring Expenditure Cost-0.14 Crores,)  <b>Corporate Environment Responsibility Cost:-52.50 Lakh</b>	

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## PREMISES OF THE ENVIRONMENTAL CLEARANCE

This Environmental Clearance is being issued on the premises which have been substantiated / described in detail in the format of application along with enclosed affidavits / certificates / undertakings etc. furnished therewith by the project proponent:-

- (i) Information provided, descriptions mentioned are complete, true and actual and no relevant fact has been concealed to obtain Environmental Clearance deceitfully by the project proponent.
- (ii) Environmental Clearance shall be liable to be revoked if furnished information, provided description / Certificates / Affidavits / Undertaking etc. are found false/ concocted at any stage of its validity.
- (iii) Project Proponent shall intimate SEIAA immediately if there is any change in their official address / E-mail / Ph. No / Cell. no etc failing which communication sent to them on old address shall be considered as delivered.
- (iv) This Environmental Clearance is issued without affecting any court order / statutory other institutions as well as relevant other law's enactment by Ministry of Environment, Forest & Climate Change, Government of India, New Delhi.

### A. Specific Conditions

1. No drilling shall be carried out in Protected Areas / forest area.
2. Approach road shall be made pucca to minimize generation of suspended dust.
3. Total fresh water requirement shall not exceed 20 cum/day/well proposed to be met through tankers / ground water. Mobile ETP shall be installed coupled with RO to reuse the treated water in drilling system. Size of the waste shall not exceed from the hole volume of the well + volume of drill cutting expected to be generated and volume of discarded mud if any. Two feet free board may be left to accommodate rain water. There shall be separate storm water channel and rain water shall not be allowed to mix with waste water. Alternatively, if possible pit less drilling be practiced instead of above.
4. No lead acid batteries shall be utilized in the project / site.

### I. Statutory Compliance

1. The Project Proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, if drilling is carried in Forest areas.
2. The project proponent shall obtain Consent to Establish/ Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.





3. Necessary authorization required under the Hazardous and other Wastes (Management and Trans -Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhere to.
4. The project proponent shall obtain and adhere to statutory clearance under the coastal Regulation Zone Notification, 2011, as applicable.

## **II. Air quality monitoring and preservation**

1. 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 shall be complied with.
2. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
3. Ambient Air Quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16th 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.
4. During explorations, production, storage and handling, the fugitive emission of methane, if any, shall be monitored.
5. The Project Proponent also to ensure tapping / storing of the CO<sub>2</sub> generated, if any, during the process and handling.
6. Approach road shall be made pucca to minimize generation of suspended dust.

## **III. Water quality monitoring and preservation**

1. As proposed by the project proponent, Zero Liquid Discharge shall be ensured and no waste / treated water shall be discharged to any surface water body, sea and / or on land. Domestic sewage shall be disposed off through septic tank / soak pit.
2. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
3. The company shall construct the garland drain all around the drilling site to prevent runoff of any oil contaminated and non-oil contaminated. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
4. Drill cutting separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminates and disposed

according to HWMH Rules, 2016. No effluent / drilling mud / drill cutting shall be discharged / disposed off into nearby surface waste bodies. The company shall comply with 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.

**IV. Noise monitoring and preservation**

1. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
2. The overall noised 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.
3. The ambient noise levels should conform to the standards prescribed under E(P) A Rules, 1986 viz. 75 dB (A) during day time and 70 dB (A) during night time.

**V. Energy Conservation measures**

1. The energy sources for lighting purposes shall preferably be LED based.

**VI. Waste management**

1. 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 (oil sludge) and spent oil shall be disposed of to the authorized recyclers.
2. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office.

**VII. Water quality monitoring and preservation**

1. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
2. Blow out preventer 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.
3. Company shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measure 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

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environmental monitoring shall be available at the project site office. Remote monitoring of site should be done.

4. On completion of drilling, the company has to plug the drilled wells safely and obtain certificate from environment safety angle from the concerned authority.
5. 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 to the area in original condition. In the event that no economic quality of hydrocarbon is found a full abandonment plan shall be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
6. 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.
7. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
8. 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.
9. Provisions 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, mobile STP, safe drinking water, medical healthcare, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
10. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
11. The company shall carry out long long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected shall be submitted six monthly to the Ministry and Regional Office.

#### **VIII. Corporate Environment Responsibility**

- (i) As proposed, Rs. 9 crores shall be allocated for Corporate Environment Responsibility (CER). The CER plan shall be implemented during the plant construction stage and before commissioning of the project.



- (ii) The company shall have a well laid down environmental policy duly approve by the board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violations of the environmental / forest /wildlife norms/ conditions and / or shareholders /stake holders.. The copy of the board resolution in this regaled shall be submitted to the MoEF&CC as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and Environmental Conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise office along with the Six Monthly Compliance Report.
- (v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

#### **IX Miscellaneous**

- (i) The Project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

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- (iv) The project proponent shall submit six-monthly reports on the status of compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (v) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (vi) The project proponent 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, commencing the land development work and start of production operation by the project.
- (vii) Restoration of the project site shall be carried out satisfactorily and report shall be sent to the Ministry's Regional Office/ SEIAA, Bihar.
- (viii) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (ix) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report Commitment made during Public Hearing and also that during their presentation to the Expert appraisal Committee.
- (x) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- (xi) The regional office of this Ministry/SEIAA, Bihar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office/SEIAA, Bihar by furnishing the requisite data/information/monitoring reports.
- (xii) SEIAA, Bihar reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The ministry reserves the right to stipulate additional conditions, if implementation of any of the above conditions is not found satisfactory.
- (xiii) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (protection) Act, 1986.
- (xiv) The above conditions will be enforced inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air & Prevention & Control of pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste

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(Management, handling and Transboundary Movement) Rules, 2016 and the public Liability insurances Act, 1991 read with subsequent amendments therein.

- (xv) Any appeal against this environmental clearance shall lie with the National green Tribunal, if preferred with in a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Sd/-  
(Sudhir Kumar)  
Member-Secretary  
SEIAA, Bihar

**Copy, through email, for information and necessary action to:-**

1. Hon'ble Minister, Environment, Forest and Climate Change Deptt., Govt. of Bihar, Patna.
2. The Principal Secretary, Environment, Forest and Climate Change Deptt., Govt. of Bihar, Sinchai Bhawan, Patna - 15.
3. Additional Chief Secretary, Mines & Geology, department. Govt. of Bihar, Patna.
4. The Chairman, SEAC, Bihar.
5. The Member Secretary, Bihar State Pollution Control Board, Patna-23.
6. RO, Regional office, MoEF&CC, 2<sup>nd</sup> Floor, Headquarter - Jharkhand State Housing Board, Harmu Chowk, Ranchi, Jharkhand - 834002.
7. Guard file.



Sd/-  
(Sudhir Kumar)  
Member Secretary,  
SEIAA, Bihar

