



**Oil And Natural Gas Corporation Limited**

Western Onshore Basin

**Health, Safety and Environment Section**

Regional Stores Complex, Makarpura Road, Vadodara-390009

Phone : 0265-2603333 Fax : 0265-2638855

**ऑयल एण्ड नेचुरल गैस कारपोरेशन लिमिटेड**

पश्चिमी अभितट द्रोनी

**स्वास्थ्य, संस्था एवं पर्यावरण अनुभाग**

क्षेत्रीय भंडार परिसर, मकरपुरा रोड, वडोदरा - ३९० ००९

दूरभाष : ०२६५-२६०३३३३ फेक्स : ०२६५ - २६३८८५५

NO. BDA/BASIN/HSE/COMPLIANCE/BLOCK-II

DATE: 15.02.2016

The Chief Conservator of Forests (Central),  
MOEF, Regional Office,  
Link Road No.3, E-5 Arera Colony,  
BHOPAL-462016

**Sub: Six monthly Compliance Report of Environmental Clearance for Exploratory Drilling of Wells of ONGC, WOB, Baroda**

**Ref.: EC letters No. J-11011/102/2012-IA II (I) dated 22.08.2013**

Dear Sir,

This has reference to above mentioned Environmental Clearances issued by MOEF, please find herewith six monthly compliance report as on 01.01.2016 for exploratory drilling of wells drilled between 01.07.2015 to 31.12.2015. The following wells drilled between the above mentioned period.

- 1) WDAU
- 2) NGBO

Any other information/ documents desired shall be furnished most gladly.

Thanking you,

Yours faithfully,

  
(M. K. Garg)

Chief Engineer (P)  
HSE, WOB, Baroda

Encl.: As Above

**COMPLIANCE OF CONDITIONS IN ENVIRONMENTAL CLEARANCE**

**(COMPLIANCE REPORT)**

**Environmental Clearance No. J-11011/102/2012-IA II(I) dated 22.08.2013**

**Well Nos.: WDAU**

**Drilling Status: Drilled**

| Sl.No. | Conditions  | Compliance status as on 01.12.2015   |
|--------|---|--|
| 1      | This EC is only for Exploratory Drilling. In case Development drilling is to be done in future, prior clearance must be obtained from the Ministry.   | will be complied   |
| 2      | Ambient air quality should 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 16th November, 2009 for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, methane & Non-methane HC etc.   | complied and analysis report enclosed, all parameters are under permissible limits   |
| 3      | Mercury should also be analyzed in air, water and drill cuttings twice during drilling period.  | complied and analysis report enclosed  |
| 4      | Approach road should be made pucca to minimise generation of suspended dust.  | complied   |
| 5      | The company should make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG Sets and proper stake height should be provided as per CPCB guidelines.  | acoustic enclosure were installed around DG sets to control noise  |
| 6      | Total water requirement should not exceed 35 M3/day and prior permission should be obtained from the concerned agency.  | Water consumption is approx. 35 m3/d. Following action is taken to reduce fresh water consumption. 1) Treated effluent water is used for mud and brine preparation and cleaning purposes. 2) recycling more mud.   |
| 7      | The Company should construct the garland drain all around the drilling site to prevent run off any oil containing waste to the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated waste water should be confirmed to CPCB standard.   | Drains are constructed through which drilled cuttings and other wastes are collected in HDPE lined waste pits and solar dried.   |
| 8      | Drilling waste water 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 shall be obtained for the disposal of drill cuttings and hazardous waste. Otherwise secured land fill shall be created at the site as per design approved by the CPCB and obtain Authorization from the SPCB. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal. | Drilling waste water including drill cuttings wash water is collected in disposal pit lined with HDPE lining and solar dried. All parameters are found to be within permissible limits. Copy of Analysis report enclosed. ONGC Ahmedabad is member of TSDF at Bharuch Enviro Infrastructure Ltd. (Sample copy of membership enclosed). |
| 9      | Good sanitation facility should be provided at the drilling sites. Domestic sewage should be disposed of through septic tank/soak pit.  | complied, domestic sewage is disposed through adequate septic tanks and soak pits  |
| 10     | Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorized recycler.  | Oil spillage prevention scheme and action plan for a possible leakage/spill is available in form of Standard Operation Procedure for onshore pipeline which covers method to control oil spillage.   |
| 11     | 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.  | complied, covered with HDPE lining for collection of drill cuttings, solid waste & waste water & are solar dried. Impervious lining pits are being provided for collecting drill cutting and waste water and is complied as per GSR.546 dated 30th August 2005.  |
| 12     | The company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knock out drums should be installed to minimize gaseous emissions during operation.  | ONGC has Disaster management Plan (DMP), Site Specific Emergency Plan (ERP) and Contingency Plans in place. In case of any contingency, action will be taken as per DMP/ERP. Ambient air quality monitoring has been carried out and all the parameters are under permissible limits as prescribed by GPCB.                            |



|    |  |   |
|----|--|---|
| 13 | The company shall develop a contingency plan for H2S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H2S detectors in locations of high risk of exposure along with self containing breathing apparatus.  | Emergency response plans for H2S release is available. H2S detector are available at drilling rigs.   |
| 14 | On completion of drilling, the company have to plug the drill wells safely and obtain certificate from the environment safety angle from the concerned authority.  | will be done in case of abandonment as per guidelines   |
| 15 | Blow Out Preventor(BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during should focus on maintaining well bore hydrostatic pressure by proper pre-swell planning and drilling fluid logging etc.  | complied  |
| 16 | Emergency response plan(ERP) should be based on the guidelines prepared by OISD, DGMS and Government of India  | ONGC has Disaster management Plan (DMP), Site Specific Emergency Plan (ERP) and Contingency Plans prepared on relevant guidelines. (copy enclosed )   |
| 17 | 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 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.           | Being Complied, at the time of final handing over of land, restoration is done as per company guidelines.   |
| 18 | Abandoned well inventory and remediation plan shall be submitted with in six month from the date of issue of letter.   | Complied  |
| 19 | Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.   | PME of all employees is carried out as per company policy   |
| 20 | In case 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.  | In case of commercial viability of oil/gas, fresh EC shall be obtained for the entire block.  |
| 21 | Restoration of the project site should be carried out satisfactorily and report should be sent to Ministry's Regional Office at Bhopal.  | Complied  |
| 22 | Oil content in the drill cuttings should be monitored by some Authorised agency and report should be sent to the Ministry's Regional Office at Bhopal.   | Only Water based mud is used for drilling. However, waste water and cuttings are analysed for oil an grease content. The agency authorised for the same is GUJARAT LABORATORY which is approved agency by NABL.(Copy of Monitoring Report enclosed).  |
| 23 | Under Enterprise Social Commitment (ESC),sufficent budgetary provision should be made for health improvement,education,water and electricity supply etc. in and around the project.  | 2% of average net profit of ONGC is earmarked for CSR(Corporate Social Responsibility) projects in an around operational area, as directed by GOI   |
| 24 | An audit should be done to ensure that the Environment Management Plan is implemented in totality and report should be submitted to Ministry's Regional Office   | Rig is ISO certified and hence EMP is in place.   |
| 25 | All the commitment made regarding issues raised during the public hearing/consultation meeting held on 12 <sup>th</sup> November,2013 and 13 <sup>th</sup> November, 2013 and shall be satisfactorily implemented.   | All commitments made to public during public hearing are complied   |
| 26 | All personnel including those of contractors should be trained and made fully aware of the hazards,risks and controls in place.  | Complied, MVT(Mines Vocational Training) are imparted to all contractual workers before deployment at site  |
| 27 | Company shall have own Environment Management Cell having qualified persons with proper background.  | EM Cell is at Corporate HSE of ONGC, New Delhi  |
| 28 | Company should prepare operating manual in respect of all activities.It should cover all safety & environment related issues and system.Measures to be taken for protection.One set of environment manual should be made available at the drilling site/project site.Awareness should be created at each level of the management.All the schedules and results of environment monitoring should be available at the project site office. | Standard Operating Procedures for drilling operations have been given to supervisors and concerned persons at all drilling rigs. Safe Work Practices is also made available at all rigs. Ambient/stack, noise level and potable water report is available at rigs.Regular safety and environment training is being provided to the employees by our various in- house training institutes like IPSHEM Goa,IDT and ONGC Academy, Dehradun and RTI Vadodara etc |
| 29 | Company shall prepare operating manual in respect of all activities.It should cover all safety & environment related issues and system.Measures to be taken for protection.One set of environment manual shall be made available at the drilling site/project site.Awareness should be created at each level of the management.All the schedules and results of environment monitoring should be available at the project site office.   | same as above   |

