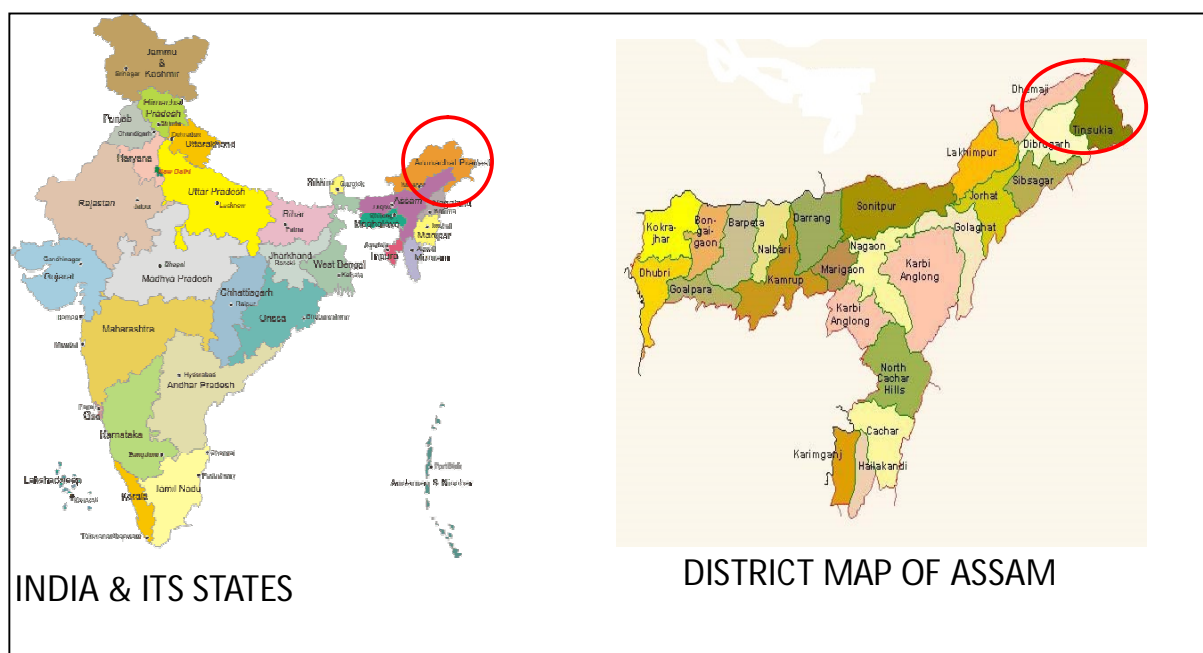


## Pre-Feasibility Report

Oil India Limited (OIL), a Government of India Navaratna Enterprise, is currently engaged in carrying out exploration activities for hydrocarbon in its operational areas of Upper Assam, Arunachal Pradesh and Mizoram in the North Eastern part of India. OIL also has significant presence in pan-India and overseas.

The project area (Loc DHD) is situated towards north-eastern part of Upper Assam basin and about 16 km east of Duliajan oil township. The Jorajan area is a part of the Greater Jorajan Oilfield which comprises of Langkasi, Kathalguri, Nagajan, Santi, Jaipur, Tarajan and Jorajan areas. The presence of commercial hydrocarbon in the Jorajan Field within Barails and Tipams were established in 1972, through the drilling of the first well Jorajan-1. The main hydrocarbon bearing sand ranges of Jorajan area are confined to the Tipam reservoirs of Miocene age. So far, 46 (forty six) wells have been drilled in this field out of which 10 (ten) wells viz. Jorajan-1, 2, 3, 4, 7, 10, 11, 17, 22 and 23 have been drilled primarily to probe/produce from Barails and the remaining 36 (thirty six) wells were drilled for Tipam prospects. Due to lack of demand for gas during the 1980's and 1990's, few tested gas bearing sands were plugged back to test higher up sands. As on May' 2012, total cumulative production from Barail sands of Jorajan area is 0.005 MM Std. KIs of oil with 0.004 MM Std. KIs of water and 27.598 MMSCUM of gas. The total contribution from Tipam sands of Jorajan area is 3.9 MM Std. KIs of oil and 2172.78 MMSCUM of gas.

**Fig.1 :LOCATION MAP OF THE PROJECT AREA, TINSUKIA DISTRICT, ASSAM**



Oil India Limited intends to drill **Loc DHD** in this area to prove the limit of oil/gas bearing horizons within Barail as primary target and Tipam as the

secondary target with a target depth of 4000 m. Loc DHD lies in reserve forest of Jorajan area. As already mentioned that around 46 wells have been completed in this area, this location is planned to drill from the existing plinth of well Jorajan-1. Once hydrocarbon is established in this area, it is expected to enhance the cumulative oil and gas production of OIL adding to the national economy.



Fig 2. Jorajan Reserve Forest (Source Google Earth)

**Coordinate of the Location DHD:**

POINT	Latitude	Longitude
DHD (Surface)	27°20'22.08"N	95°29'24.85"E
<b>Target Depth</b>	<b>4200 m</b>	

### **Climatic and Soil Data**

Jorajan Area in Tinsukia District falls under the humid subtropical climate zone with warm summer and the following are the well-defined seasons of the region:

Pre-monsoon	: March-May
Monsoon	: June- September
Post-monsoon	: October- November
Winter	: December- February

The months with high temperatures are generally from May to September. Temperature normally remains low from November to February. Rainfall begins from late April and continues upto early October, with June-September receiving maximum downpour. Morning relative humidity values are generally comparable for all months with values ranging from 91-97%. The afternoon relative humidity values generally varies between 43-78%. Comparatively higher relative humidity values are noted during monsoon months (May-September) which was comparatively lower during the winter months (December-February).

Samples collected from near Jorajan area were found to be loamy in nature. Moisture content varied between 1.5-4.0% with the forest land sample showing the maximum moisture content. The soil samples collected from the sites were found to be strongly acidic in nature with pH values varying between 4.81-4.94.

### **Economic Feasibility :**

A total in-place geological reserve around of 8 MMSKLS has been estimated for the entire Jorajan Field with 500 MMSCUM of gas. The recoverable reserve is estimated around 1.5 MMSKL with a cumulative daily production of 450 bboil per day. Royalty will be around 40crore to the State economy per year. Resources pertaining to the extended area will additionally enhance the quantum of entire Jorajan Field.

The estimated expenditure for completing this well is ₹ 40Crore. Based on the preliminary technical study with available geoscientific data & operational feasibility, OIL expects that Loc DHD s expected to offer a tenable cost- benefit scenario for carrying out the exploration activities.

The commercial viability of hydrocarbon production is highly expected in this project as the Loc DHD lies within a development oilfield. Production of oil/ gas will help in meeting energy needs of the country and will lead directly to socio-economic development of the area and its vicinity.

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