NEF PROJECYT
OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan, Pin – 786602, Assam

DETAILED TEXT AGAINST EXPRESSION OF INTEREST (EOI)

For

HIRING OF DRILLING RIG & ASSOCIATED SERVICES
FOR NELP-IV BLOCK: AA-ONN-2002/3 IN ASSAM

PREAMBLE:

OIL INDIA LIMITED (OIL), a premier National Oil Company with its Headquarters at Duliajan, Assam, India, engaged in exploration, production & transportation of crude oil & natural gas is planning for drilling and testing of one no. of Exploratory Wells in NELP-IV block: AA-ONN-2002/3 in the state of Assam in the North-Eastern part of India.

1.1 This block has been acquired by Oil India Limited under NELP 4th round of bidding. OIL is the operator of the block with 30% Participating Interest (PI) with M/s ONGCL as JV partner with 70% PI. The original block on offer covered an area of about **1460 sq.km**. However, while applying for Phase-II, as per PSC, the Consortium relinquished 25% of the original area and presently the block covers an area of **1095 km^2**.

1.2 The block AA-ONN-2002/3 is situated in the North Cachar Hills of Assam (Figs–2 & 3) and is bounded by the following coordinates **(Table 1):**

Table 1. Coordinate of Block MZ-ONN-2004/1

Points	Longitude	Latitude
C	93^0 07′ 48.04″	25^0 40′ 20.87″
G	93^0 15′ 35.00″	25^0 40′ 53.00″
H	93^0 19′ 57.00″	25^0 32′ 53.00″
I	93^0 22′ 37.00″	25^0 15′ 00.00″
D	93^0 04′ 11.00″	25^0 15′ 00.00″
C	93^0 07′ 48.04″	25^0 40′ 20.87″

2.0 Geographical Location:

The block is situated in the southern part of Assam state. The western part of the block is connected by road and railway and the rest of the part are not well connected by road. The northern part is covered by Dhansiri Reserved Forest and Langting Mupa Reserved Forest. The area is connected with different parts of Assam by rail and road. Hatikhali and Maibong Railway stations, situated on the meter gauge railway line connecting Lumding and Badarpur Railway Junctions lies with in the block. It is also approachable by metalled and unmetalled roads **(Fig. 1 & 2).**

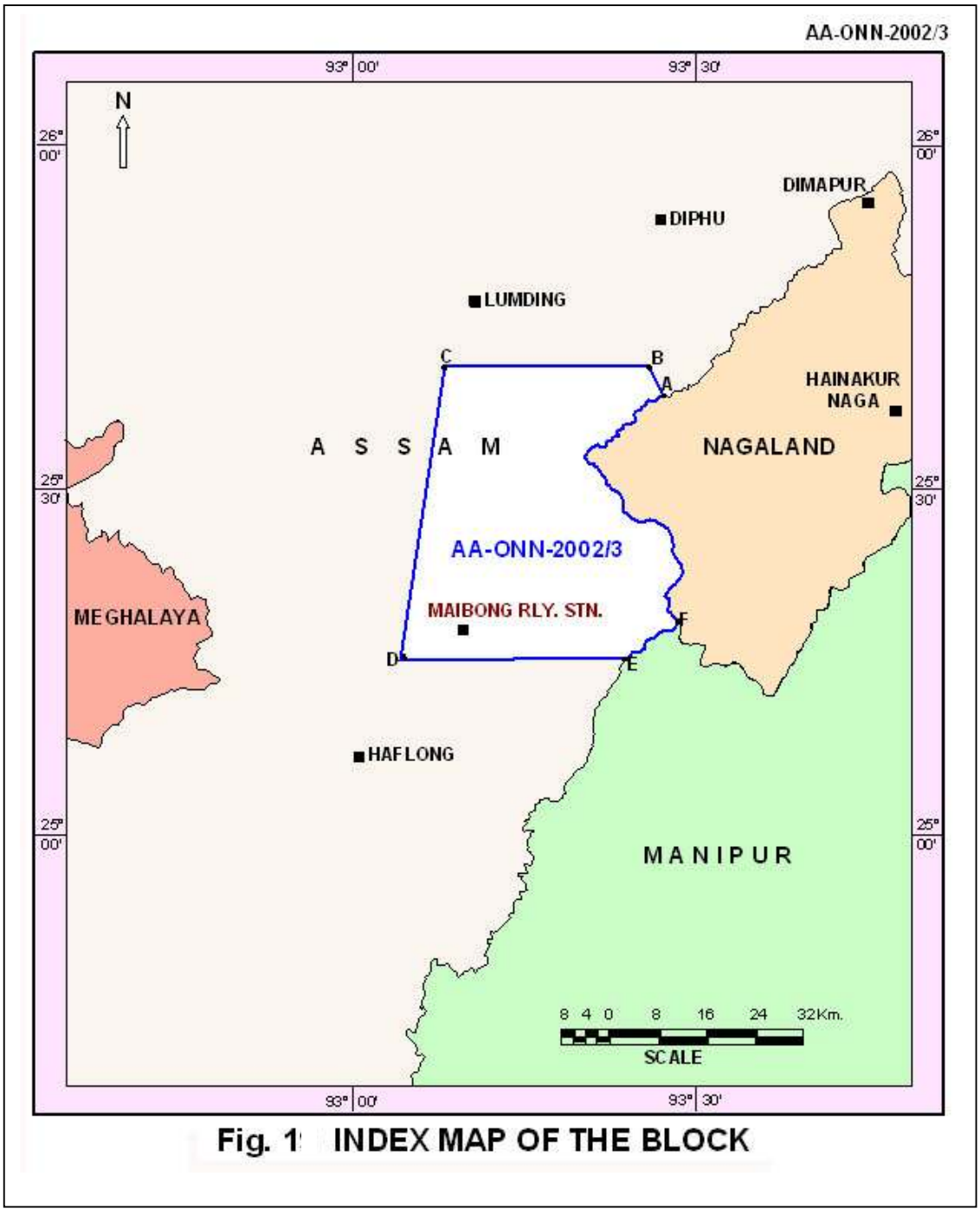

Fig. 1 INDEX MAP OF THE BLOCK

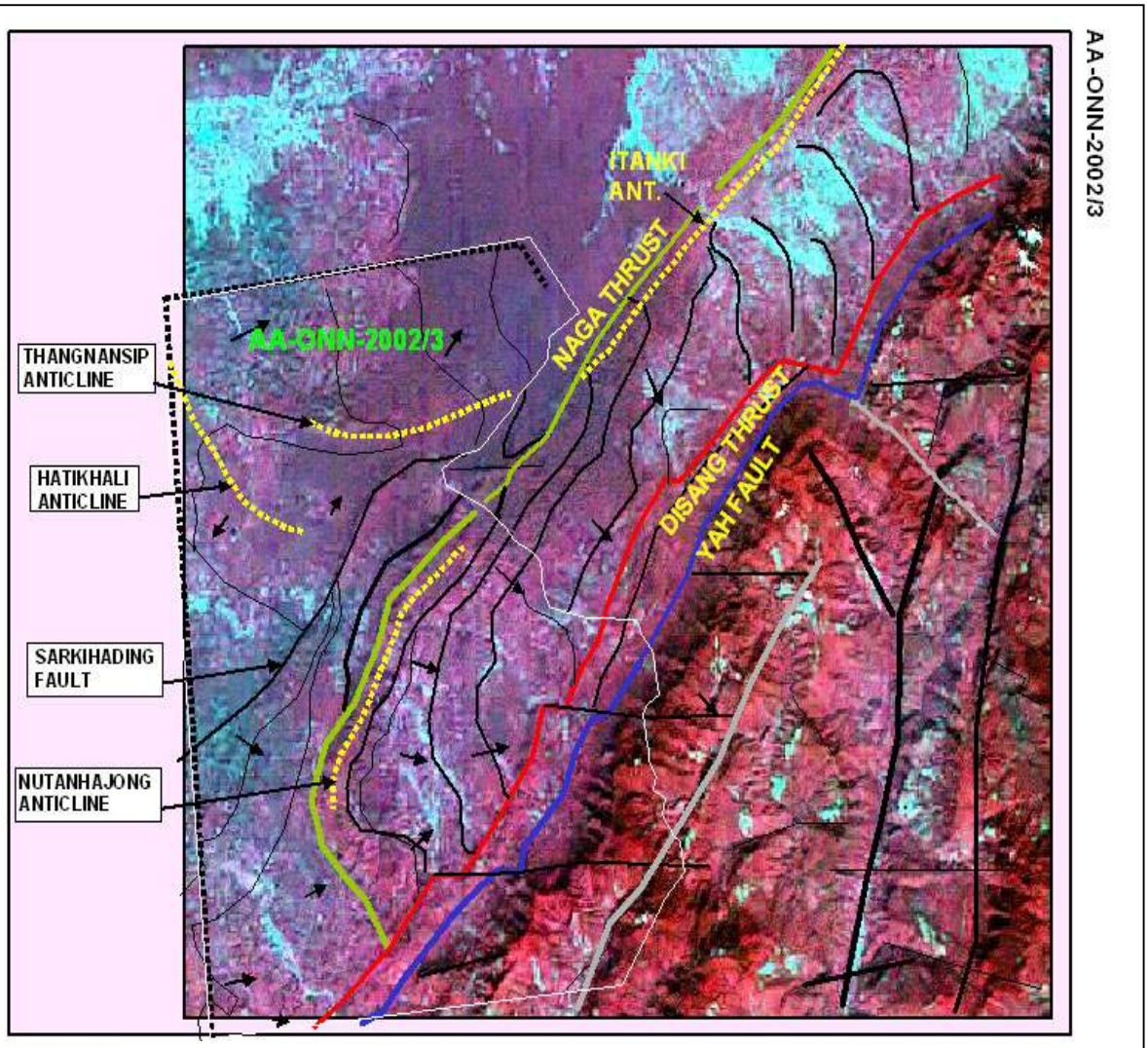

Figure-2: Satellite Image for Block: AA-ONN-2002/3 (Assam)

3.0 Topography, Climate and Vegetation:

3.1 The entire area is covered by thick vegetation and is moderately rough topography and inaccessible, innumerable streams, streams-lets. The ground elevation in the northern part varies from 500 to 1868 m, particularly the southern part is having steep escarpment villages, not connected by road, and foot path is connecting the scattered villages.

3.2 Northeastern India, in general, has a humid tropical climate with annual rainfall ranging from 300cm to a little more than 400cm. The maximum temperature during the summer months of April, May and June ranges between 30°C in the hilly terrain and 38°C in the plains. The monsoon sets in rather early in this part of the country, with the advent of pre-monsoon rain during May, and continues up to September. During the winter months (November, December and January), the temperature ranges from 12°C to 25°C.

3.2 The forest and marshy/ swampy areas in and around the forests, hosts a variety of vegetation with thick undergrowth. Parts of these forests are unapproachable by motorable road throughout the year.

4.0 Communication:

4.1 The area is connected with different parts of Assam by rail and road. **Maibong Railway station (Fig.1)**, situated on the meter gauge railway line connecting Lumding and Badarpur Railway Junctions, **lies within the block**. It is also approachable by metalled and unmetalled roads from Silchar and Lumding. Within the block, there are a few metalled and motorable roads which give accessibility to different places, situated within and in the neighborhood of the block. There is no airport in the districts. The airport in **Dimapur** is 54 km away from Diphu being the nearest air port and which is connected with the international airports at Kolkata and Guwahati.

5.0 Geology and Tectonics of the Area:

5.1 The area was mapped by many geologists of Assam Oil Company (AOC), Burma Oil Company (BOC), Geological Survey of India (GSI) and Oil and Natural Gas Corporation Limited (ONGC) since 1932**.**

5.2 The block area is covered by outcrops of Tertiary sedimentary rocks. The geological map of the area and a few geological cross sections, prepared based on field mapping data. The stratigraphic succession exposed in, and expected to be encountered in the subsurface of the block is given in **Table-2**.

Table-2: STRATIGRAPHIC SUCCESSION EXPOSED IN, AND EXPECTED TO OCCUR IN THE SUBSURFACE OF, THE BLOCK AA-ONN-2002/3

AGE	GROUP	FORMATION WITH MAXIMUM THICKNESS (m)		LITHOLOGY IN BRIEF	REMARKS
PLEISTOCENE		DIHING		Boulder conglomerates with coarse sands and some clays.	
----------Unconformity----------					
PLIOCENE		NAMSANG	400	Conglomeratic ssts, clays and pieces of lignitic coals.	
----------Unconformity----------					
UPPER MIOCENE	TIPAM	GIRUJAN CLAY	600	Mottled clays and lenticular sandstone beds.	
		TIPAM SST.	800	Massive, m-c grained sandstones with clay	
MIDDLE TO LOWER MIOCENE	SURMA	BOKABIL	550	Shales, siltstone and subordinate sandstones.	• Oil bearing in Khoraghat structure situated about 25 Km NNE from the block.
		UPPER BHUBAN	700	Primarily f-grained sandstones with minor shales.	• Good quality reservoir rock

		MIDDLE BHUBAN	530		Primary shales with minor sandstones.	• Can act as seal over Renji sandstones; intraformational ssts can act as reservoir rocks
----------Unconformity----------						
		ASSAM SHELF	SCHUPPEN BELT			
OLIGOCENE	BARAIL		RENJI		• Massive, f-m grained sandstones with minor shales.	• Good reservoir rock.
		UNDIFFERENTIATED, ARENACEOUS, 1300	JENAM		~1500 • Shales with some sandstones, carbonaceous matter and some coal beds.	• Possess good source rock characteristics.
			LAISONG		• Bedded hard sandstones with some shales.	• Can act as reservoir rock.
UPPER EOCENE	JAINTIA	KOPILI	700		•Shales dominant sand shale alternations.	• Possess good source rock characteristics in Dimapur Low in the Dhansiri valley to the NE.
MIDDLE EOCENE		SYLHET LIMESTONE	330		•Hard, compact, nummulitic limestone.	• Can act as reservoir rock
PALEOCENE/LOWER EOCENE		TURA SST	20		•Sandstones with subordinate shales.	•Possess good reservoir properties.
PALEOCENE TO UPPER EOCENE	DISANG	-			~1500 •Grey shales.	•Kopili alternations, Sylhet Lsts and Tura ssts change over to Disang shales east of the hinge zone. •Possess good source rock characteristics. •Intraformational ssts can act as reservoir rocks.

5.3 A notable structural feature is that the Naga and the Disang thrusts merge into one about 15 km southeast of Maibong Railway station and then runs towards southwest as the Haflong thrust. From Haflong, the fault runs westward as the Dauki fault. These behaviours of the structural elements have been responsible for the occurrence of outcrops of shelf and geosynclinal facies very close to one another in the southwestern part of the block and in Haflong area.

There are three exposed anticlines of which two, namely, the **Hatikhali** and **Thangnangsip anticlines** occur within the Upper Assam shelf part of the block and one, namely, the **Nutan Hajong anticline** occurs in the Naga Schuppen part of the block, grazing the Naga thrust.

6.0 Geophysical Survey:

6.1 Geophysical Surveys Gravity survey, conducted in Bengal and Assam–Arakan basins covers the offered the block and its surrounding areas.

The Bouguer anomaly map **(Fig-3)** shows that a major gravity high, oriented in E-W direction, extends from west to the southwestern part of the block. The axis of the gravity high plunges towards northeast of the block and then disappears.

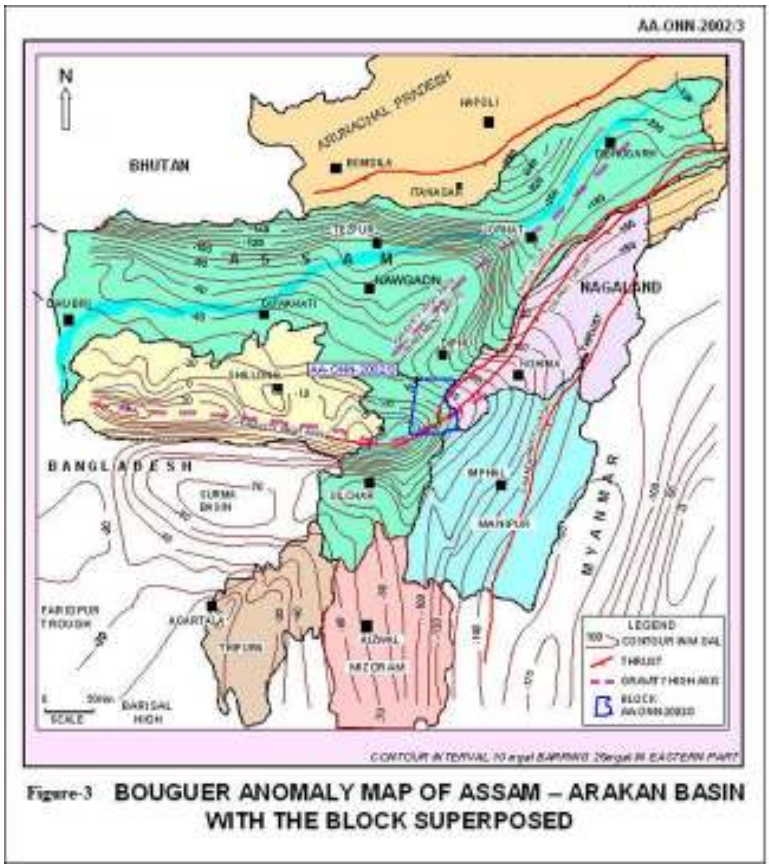

Figure-3 BOUGUER ANOMALY MAP OF ASSAM – ARAKAN BASIN WITH THE BLOCK SUPERPOSED

7.0 Drilling Commitment:

As per committed Minimum Work Program (MWP) along with other activities, the consortium needs to drill 1 (one) exploratory well within May 2012. The well will be targeted with a maximum depth of investigation of **2500 to 3500 mtrs.**

8.0 BROAD SCOPE OF SERVICES: It will include but not be limited to the following:

i. Suitable drilling Rig Package – 1400 HP.

ii. Well Planning & Design of Casing Policy, Drilling Fluid, Cement Policy, Completion etc.

iii. Associated Services like Mud logging, Well Logging, Coring, Cementing, Bulk Handling, Mud Engineering (including supply of cement & additives), Solid water treatment & Effluent Treatment, DST/TCP/Surface Production Testing, Directional Drilling (if required), Liner hanger, Centrifuge, LMSS etc.

iv. Providing Civil Engineering & Survey services for surveying & Stacking the Location, preparation of road & plinth and maintenance of plinth till rig moves from the location.

9.0 QUALIFICATION AND EXPERIENCE OF THE PARTIES FOR SUBMISSION OF EOI

I. The party(s) shall have relevant work experience & expertise in providing suitable drilling rig package {meeting the criteria mentioned above vide para (i) of Broad Scope of Services} and associated services to reputed Operators in E & P sectors, in geologically complex and logistically difficult areas.

Party(s) must have a good track record, strong & sound Quality and Safety Environment Policies being practiced solidly across the organization.

III. The interested party(s) shall have suitable Drilling Rig Package in-house and offer with all other associated services mentioned vide para.8.0 (ii) & (iii) above as an integrated package.

IV. It is expected that individual party may not have the adequate resources to offer the entire range of services mentioned in para 8.0 (ii) & (iii) & (iv) along with the Drilling Rig Package. In that case, the interested party(s) (having core competence in providing the services mentioned vide para 8.0(i) may participate in this EOI by giving an undertaking to submit the valid legal agreement with concerned reputed national/international Party(s) (having requisite experience in

relevant services and having sound financial strength), with specific reference to this Project.

Accordingly, Expression of Interest should be submitted broadly indicating brief details of package services with name/address of chosen allied service provider/ third party.

10.0 SUBMISSION:

Interested companies/firms/contractors (national/international) having relevant experience and expertise in providing suitable drilling rig and associated services as an integrated package, either alone or in association with service providers to reputed Operators in E&P sectors, in geologically complex and logistically difficult areas are invited to submit their **EOI** for providing the above services. Following information/documentary evidences (**client's certificates**) must form a part of the EOI:

(i) Total No. of years of experience.
(ii) Total No. of exploratory wells drilled successfully in last five years in (a) Logistically Difficult areas and (b) List of client(s) and the Location (areas and countries).
(iii) Type and rating of Drilling Rig and other Associated Services used in above areas.
(iv) Following Formats duly filled in.

However, any additional information (not spelt out by Oil India Limited in this document) furnished by the participating firm for correct assessment of the strength of the firm will be most welcome.

i. TITLE OF OFFER: Drilling Rig Package Service on Charter Hired Basis.

ii. LIST OF EQUIPMENT AVAILABLE FOR SERVICES:
- Drilling Rig ……HP,
- Capable of drilling up to a depth of ……Mtr
- Using ……"OD drill pipes
- Basic description and quantification of Rig package (Mast & Substructure, Mud Pump, Draw-works, Engines, PCR, Tankage, BOP stack, Tubular, Handling Tool etc.) etc.

iii. VINTAGE OF THE EQUIPMENT : ……Years

iv. MOBILIZATION PERIOD FOR ENTIRE RIG PACKAGE AND OTHER SERVICES:…….

v. COMPANY PROFILE: Brochures containing detail experience profile of the company.

vi. FINANCIAL STRENGTH: Audited balance sheets and profit & loss account of the companies for last three (3) years.

vii. CONTACT ADDRESS of the Companies:

vii. The in-house resources/services and the details of the allied service providers must be given in the following format:

Srl. No.	Brief Description	Remarks (In-house)	Name & Address of the Third Party Service Provider
1.	E-1400 HP AC/SCR Land Drilling Rig Package with all associated equipment and capable of drilling to a depth of 3500m with 5" drill Pipe	YES / NO	
2.	Mud Engineering Service including supply of complete line of mud chemicals.	YES / NO	
3.	Cementing & Bulk Handling Plant Service including supply of cement & additives.	YES / NO	
4.	Liner Hanger service including supply of handling/setting tool and liner hanger accessories. (optional)	YES / NO	
5.	Mud Logging Unit	YES / NO	
6.	Wire Line Logging	YES / NO	
7.	DST Service inclusive of provision for surface testing facility	YES / NO	
8.	Civil Engineering jobs including approach road, well plinth, foundation etc.	YES / NO	
9.	Effluent Treatment Plant	YES / NO	
10.	Solid Waste Treatment & disposal	YES / NO	
11.	Any other Services	YES / NO	

Based on the information and documents forwarded along with EOI, OIL may short-list the parties for a ***pre tender conference*/detailed discussion** at Guwahati/Kolkata. EOI should be submitted in duplicate in a closed envelope super-scribing "***Expression of Interest* No. OIL/NEF/EOI/04/2010 *for D*rilling Rig & Associated Services in Assam"** at the following address latest by **13.00 Hrs. (IST) on 28th September, 2010:**

Group General Manager (NEF),
NEF Project, Oil India Ltd.,
Duliajan, Assam-786602, INDIA

Ph: 91-374-2800405, Fax: 91-374-2801799,
E-mail: nef@oilindia.in

OIL reserves the right to (a) accept or reject any/all EOIs submitted by parties (b) cancel the process at any time without any liability and assigning any reason thereof.