GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM AND NATURAL GAS
RAJYA SABHA
STARRED QUESTION NO- 81
ANSWERED ON 28.07.2025

OFFSHORE OIL AND GAS EXPLORATION

*81. DR. JOHN BRITTAS:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) details of the recent claims regarding significant offshore oil and gas discoveries in the country, including near the Andaman & Nicobar Islands, specifying the location and estimated reserve found;

(b) whether these claims have been independently verified; and

(c) timeline and plan for their commercial exploitation to reduce country's import dependence while ensuring environmental safeguards?

ANSWER

MINISTER OF PETROLEUM & NATURAL GAS
(SHRI HARDEEP SINGH PURI)

(a) to (c): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (C) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO. 81 FOR REPLY ON 28.07.2025 REGARDING OFFSHORE OIL AND GAS EXPLORATION ASKED BY DR. JOHN BRITTAS.

(a) to (c): India has witnessed a renewed spurt in oil and gas exploration, particularly in offshore areas, underscoring the country's untapped hydrocarbon potential. Among these, the opening up of nearly 1 million sq. km. of erstwhile 'No-Go' offshore areas for exploration in 2022 stands out as a landmark development, unlocking vast new frontiers, especially in deepwater and frontier regions like the Andaman-Nicobar (AN) offshore basin. This bold policy move has facilitated unprecedented access for exploration and is a key enabler of the recent momentum in offshore activity.

Since 2015, Exploration and Production (E&P) companies operating in India have reported 172 hydrocarbon discoveries, including 62 in offshore areas. Some of the recent hydrocarbon discoveries made by E&P Public Sector Undertakings (PSUs) such as Oil and Natural Gas Corporation (ONGC) Ltd. and Oil India Limited (OIL) are placed at Annexure 1.

Geologically, the AN basin lies at the intersection of the Andaman and Nicobar Basins, part of the Bengal-Arakan sedimentary system. The tectonic setting at the boundary of the Indian and Burmese plates has created numerous stratigraphic traps conducive to hydrocarbon accumulation. The basin's geological promise is further amplified by its proximity to proven petroleum systems in Myanmar and North Sumatra. Global interest in the AN basin has been rekindled following significant gas discoveries in South Andaman offshore Indonesia, highlighting geological continuity across this region.

However, while geology is favourable, the real breakthrough has come from the opening up of the region and the implementation of a new exploration strategy, which includes:

- Aggressive seismic acquisition,
- Initiation of stratigraphic and exploratory drilling, and
- Increased engagement with international players, many of whom have shown interest in partnering for exploration in the newly accessible frontier blocks.

The Government through National Oil Companies have planned to drill four offshore stratigraphic wells, including one in the Andaman- Nicobar basin. These wells are designed to test key geological concepts, validate petroleum systems, and help de-risk future exploration. Although commercial accumulations are yet to be discovered, these scientific wells mark a major step forward in systematic, knowledge-driven exploration.

Further, ONGC and OIL have embarked on an ambitious exploration campaign in the Andaman ultra-deepwater region where they have planned to drill deepwater exploration wells reaching depths of 5000 metres, which has never been done in the past. A wildcat well (ANDW-7), drilled in one of these blocks targeting carbonate plays, has provided crucial geological insights, including signs of light crude and condensate in cutting samples, heavy hydrocarbons such as C-

5 neo-pentane in trip gases, and the presence of suitable reservoir facies. These findings indicate, for the first time, the existence of an active thermogenic petroleum system in the East Andaman Back Arc region, comparable to those in Myanmar and North Sumatra. While commercial accumulations are yet to be confirmed, the ongoing campaign has successfully established a working petroleum system and has laid the foundation for more focused exploration ahead.

ONGC has significantly advanced its exploration activities and has been successful in discovering hydrocarbon in 20 blocks which has estimated reserve of 75 MMTOE.

OIL INDIA LTD made 7 oil and gas discoveries in the last four years, with estimated reserves of 9.8 million barrels of oil and 2,706.3 million standard cubic meters of gas.

The Hydrocarbon Resource Assessment Study (HRAS) of 2017 estimated the basin's hydrocarbon potential at 371 MMTOE. Based on this, a 2D broadband seismic survey covering approximately 80,000 LKM of India's Exclusive Economic Zone, including the AN offshore, was completed in 2024. OIL also acquired 22,555 LKM of 2D seismic data during the Deep Andaman Offshore Survey in 2021–22. From this, several promising geological features have emerged, which are now being validated through active drilling campaigns by OIL and ONGC.

The renewed focus on offshore and frontier exploration has been facilitated by a series of policy reforms initiated after 2014. These include the transition from the Production Sharing Contract (PSC) regime to the Revenue Sharing Contract (RSC) model in 2015, the introduction of the Hydrocarbon Exploration and Licensing Policy (HELP) and Open Acreage Licensing Program (OALP) in 2016, the establishment of the National Data Repository in 2017–18, and the deregulation of crude oil marketing in 2022. These steps have created a robust and liberal exploration framework, supported by targeted incentives for frontier areas, stratigraphic drilling, and data acquisition (placed at Annexure 2). Together, these reforms have enabled the kind of risk-taking and knowledge-building exploration in the AN basin and other deepwater regions.

To ensure environmental safeguards, exploration activities can only commence after due clearance under the EIA Notification, 2006 (as amended). The EIA process involves scientific assessment, stakeholder consultation (including with local communities and fisherfolk), and clearance from the Ministry of Environment, Forest and Climate Change (MoEF&CC). Only upon securing these clearances, can companies begin operations, with all mandated safeguards in place.

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ANNEXURE-1 REFERRED TO IN PART (a) TO (c) OF RAJYA SABHA STARRED QUESTION NO. 81 TO BE ANSWERED ON 28.07.2025 REGARDING OFFSHORE OIL AND GAS EXPLORATION ASKED BY DR. JOHN BRITTAS.

Our upstream E&P PSUs namely Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL) have discovered hydrocarbon's presence in 27 blocks during the last 3-4 years. Details of some discoveries are given below:

Mumbai Offshore Basin

- **Suryamani (Date of discovery-19.03.2025)** (Block MB-OSHP-2020/2, OALP-VI): Initial testing yielded 2,235 barrels of oil and 45,181 cubic meters of gas per day.
- **Neelmani(Date of discovery-12.04.2024)** (OALP-V, Block MB-OSHP-2019/1): Initial testing yielded Gas @1,70,799 cubic meters of gas per day.
- **Vajramani**(Block MB-OSHP-2018/1, OALP-III): Testing indicated a flow of 2,122 barrels of oil and 83,120 cubic meters of gas per day.
- **Moti(Date of discovery-16.05.2023)** (OALP-III, Block MB-OSHP-2018/1): Initial testing yielded flow of 1668 barrels of oil and 90672 cubic meters of gas per day.
- **Amrit** (OALP-I, Block MB-OSHP-2017/1): Initial testing flowed gas 1,45,000 cubic meters of gas per day.
- **Moonga(Date of discovery-09.05.2023)** (OALP-III, Block MB-OSHP-2018/2): Initial testing flowed oil at 786 barrels of oil & gas at 7154 cubic meters gas per day.

Cambay Basin

- **PURN-1(Date of discovery-18.06.2024)** (Block CB-ONHP-2019/1): The well flowed oil@ 2.5 cubic meters per day after heat treatment, establishing the presence of hydrocarbons in a new area for exploration.
- **West Amod-1(Date of discovery-16.03.2024)** The well during initial testing flowed 9.23 cubic meters of oil per day and 6533 cubic meters of gas per day. This onshore discovery has opened new prospects for future exploration in the Cambay Basin.

Mahanadi Basin

- **Utkal(Date of discovery-02.01.2024)** (Block MN-DWHP-2018/1): Initial flow rate of over 300,000 cubic meters of natural gas per day during testing.
- **Konark Second Deepwater(Date of discovery-15.01.2024)** (Block MN-DWHP-2018/1): During initial testing, well flowed gas at 4,58,629 cubic meters gas per day.

Cauvery Basin

- **Chola-1 Ultra-Deepwater Gas Discovery(Date of discovery-08.08.2024)***(OALP-V, Block CY-UDWHP-2019/1): During initial testing the well flowed* 295490 cubic meters of gas per day and 17.8 cubic meters of gas per day condensate.

OIL INDIA LIMITED(OIL)

Some of the key discoveries basin wise are as under:

a) **Samdang-5:** Established gas presence in Oligocene Barail reservoir.

Year	Discovery	Depth (m)	Production rate	Reserve
2021-22	Samdang-5	3900	3000 scmd	Oil-0.30 mmbbl Gas-1900 mmscm

b) **Sesabil-1**: A new oil-bearing structure discovered in Lakadong-Therria Eocene play.

Year	Discovery	Depth (m)	Production rate	Reserve
2022-23	Sesabil-1	4100	145 bbl	Oil-7.0 mmbbl Gas-500 mmscm

c) **South Baghjan-10:** Established extension of South Baghjan field in an undrilled fault Block with oil presence in Lakadong-Therria Eocene play.

Year	Discovery	Depth (m)	Production rate	Reserve
2023-24	South Baghjan-10	4100	20 bbl	Oil-0.10 mmbbl Gas-6.30 mmscm

d) **Mechaki-6:** Oil discovery made within Eocene reservoirs. This is the deepest producing Onland discovery well in OIL's operational area.

Year	Discovery	Depth (m)	Production rate	Reserve
2024-25	Mechaki-6	5700	95 bbl	Oil-0.40 mmbbl

e) **Mechaki-7**: Encouraging gas discovery with 5 prospective reservoir zones encountered within Paleocene-Lower Eocene play.

Year	Discovery	Depth (m)	Production rate	Reserve
2024-25	Mechaki-7	5800	58000 scmd during initial testing	300 mmscm

f) **Kobochapori-1:** OIL has established presence of hydrocarbon in well Kobochapori-1 (Block AA-ONHP-2017/10) of OALP-I Round, indicated the presence of a viable

petroleum system in North bank of Brahmaputra and opened new vistas of exploration in the region.

Year	Discovery	Depth (m)	Production rate	Reserve
2024-25	Kobochapori-1	4300	-	-

g) **East Borpathar-1:** Presence of commercial oil was established in East Borpathar structure in May 2025 in Lakadong-Therria Eocene play.

Year	Discovery	Depth (m)	Production rate	Reserve
2025-26	East Borpathar-1	4600	500 bbl	Oil- 2.00 mmbbl

h) **BAKHRITIBBA:** OIL has established production potential of ~ 1,50,000 scmd of gas in DSF-III contract area for which PML was granted on 16th June 2023.

Year	Discovery	Depth (m)	Production rate	Reserve
2024-25	Sadewala	1000	1,50,000 scmd gas	330 mmscm

i) **Kharsang:**Pre NELP JV block of OIL located within MPA of OIL in state of Arunachal Pradesh.

Year	Discovery	Depth (m)	Production rate	Reserve
2025-26	Kharsang-71	1200	200 bbl	0.15 mmbbl

ANNEXURE-2 REFERRED TO IN PART (a) TO (c) OF RAJYA SABHA STARRED QUESTION NO. 81 TO BE ANSWERED ON 28.07.2025 REGARDING OFFSHORE OIL AND GAS EXPLORATION ASKED BY DR. JOHN BRITTAS.

(a) About 1 million sq. km. 'No-Go' offshore area, blocked for exploration for decades, was opened for E&P activities in September 2022.

(b) Oil India Limited acquired 22,555 LKM of 2D seismic data in Deep Andaman Offshore Survey (2021–22).

(c) Blocks as large as 20,000 sq. km. delineated for efficient resource assessment.

(d) Extended 7-year exploration period.

(e) Stabilisation period at LRP for up to 7 years.

(f) Three-year retention for sub-commercial discoveries.

(g) Flexibility to change consortium prior to bidding.

(h) Free basic data package, reduced bid bond, rationalised operatorship experience.

(i) Incentives for originators of 2D & 3D seismic data (10 bid evaluation points).