

Status of Hydrocarbon Upstream Licensing Activities in Greece

by

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with contributions of

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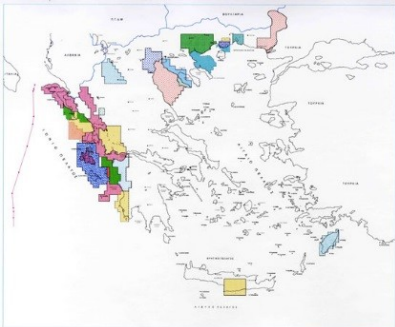
Ministry of Environment, Energy & Climate Change (YPEKA)

General Secretariat for Energy & Climate Change

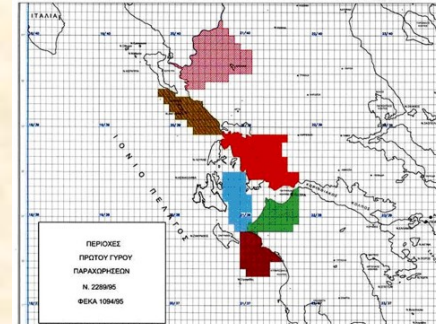
Petroleum Policy Directorate

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E&P in Greece - A Review

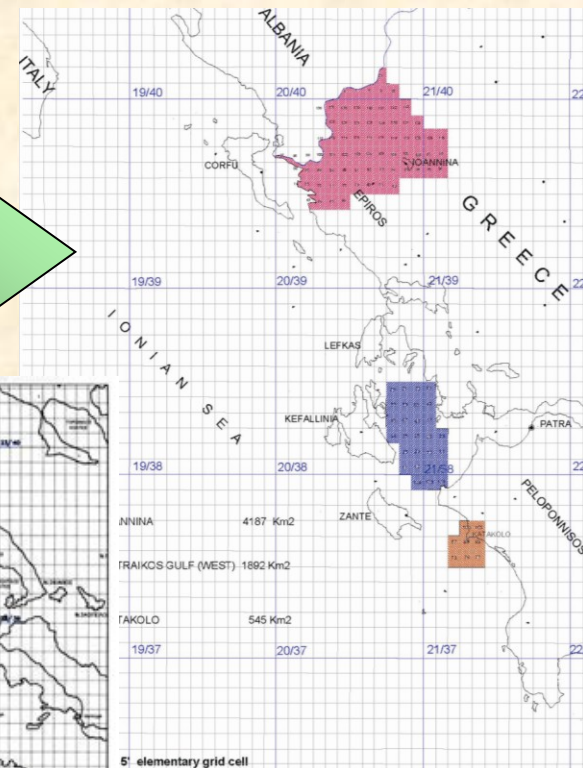
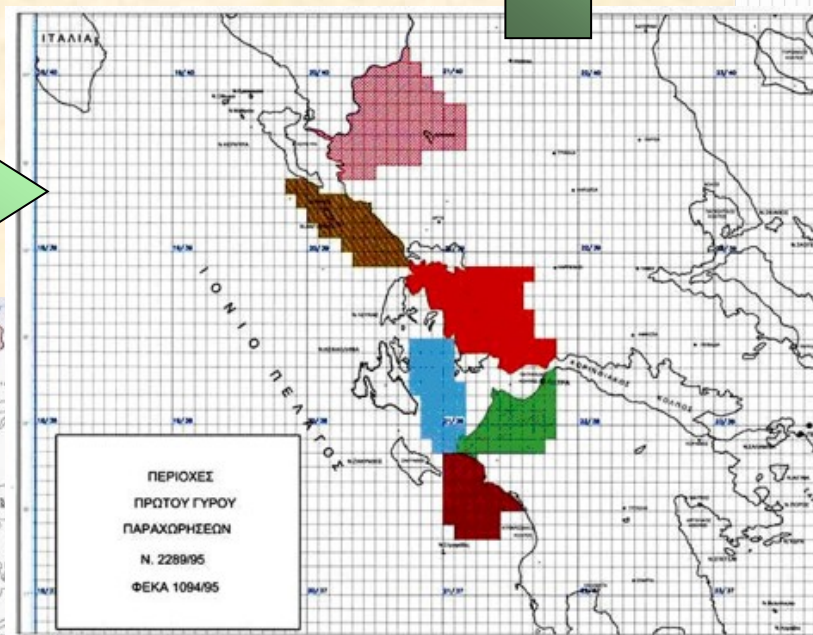
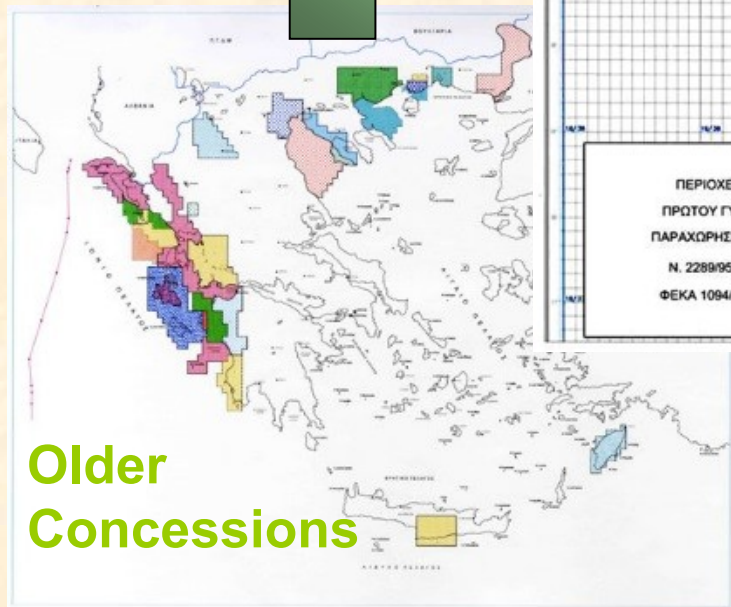


- Exploration & Exploitation of hydrocarbons (H/C) in Greece systematically starts in the '70s, following studies by IFP, IGME, BP and others, with prominent discovery the still active offshore oilfield of Prinos basin.
- Since then, extensive research and exploration has been carried out both onshore and offshore by the State owned companies DEP, DEP-EKY (present HELPE) till 1996, when the First Licensing Round launched.
- Four out of six blocks at Ioannina (onshore NW), Aitolokarnania (onshore W.), Patraikos Gulf (offshore W.) and NW Peloponessus (onshore) had been successfully tendered and awarded to Enterprise Oil, Triton, Union Texas, MOL and HELPE. In 2000 mainly d/t very low oil prices and companies portfolio changes, E-activities ceased and the blocks returned to the State.
- Offshore and onshore seismic, well data and numerous reports comprise the National Hydrocarbons Archive currently managed by the Petroleum Policy Directorate, Ministry of Environment, Energy and Climate Change (MoEECC).

Development of Blocks for H/C Exploration in Greece

Open Door 2012

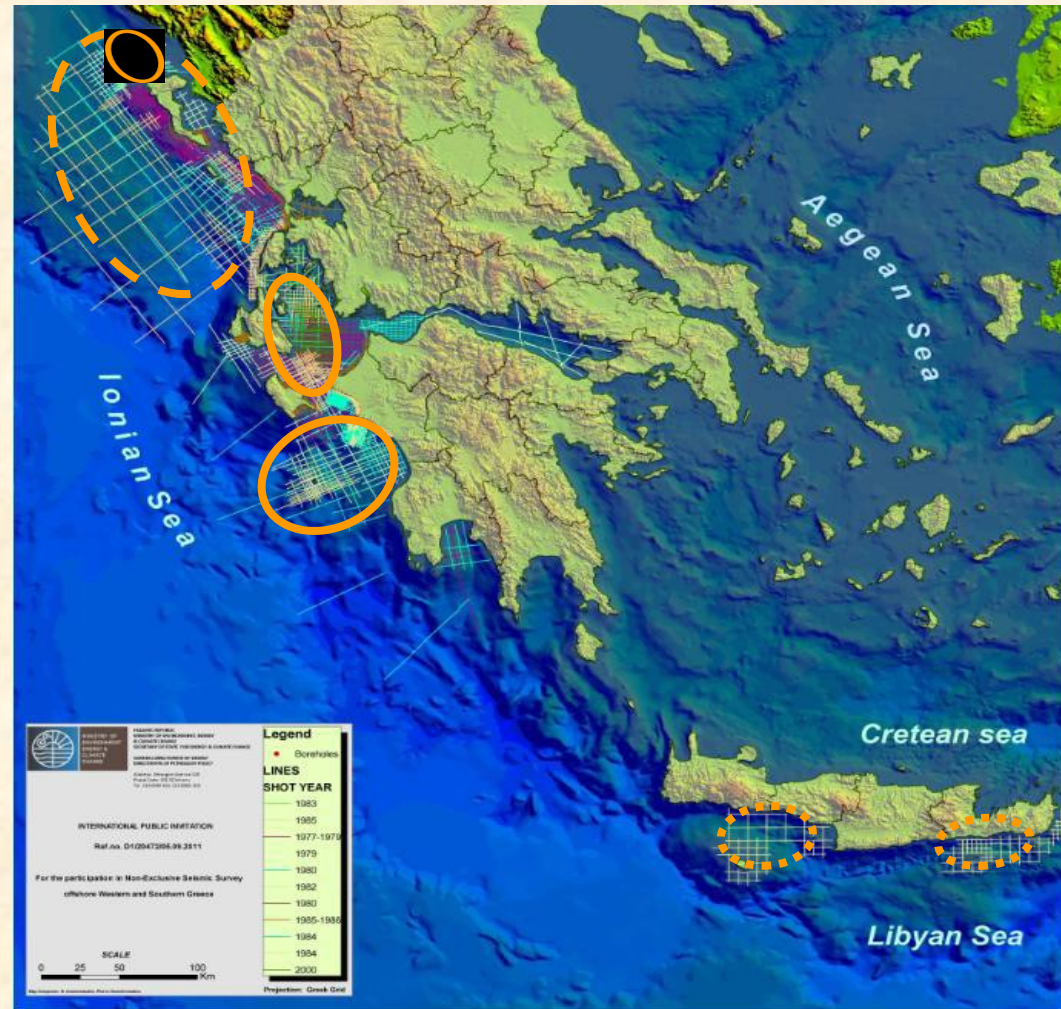
FLR 1995-96



Offshore Legacy Seismic Lines (Ionian & S. Crete)




Dominant data features

- Mainly 2D surveys
- High density in shallow water, coastal areas
- One 3D survey
- Shallow to medium sea-bed penetration
- Short to medium streamer length



Seismic Data: Vintage or Legacy ?

Exist in various media types like floppies, cartridges, tapes, cassettes, hardcopies, transparencies, etc...



FACT

There is a wealth of legacy data deposited in the Ministry's Hydrocarbons Archive in Athens

By using them in the right way you can gain a lot of new information, therefore they are a real legacy

Review – Legal & Finance

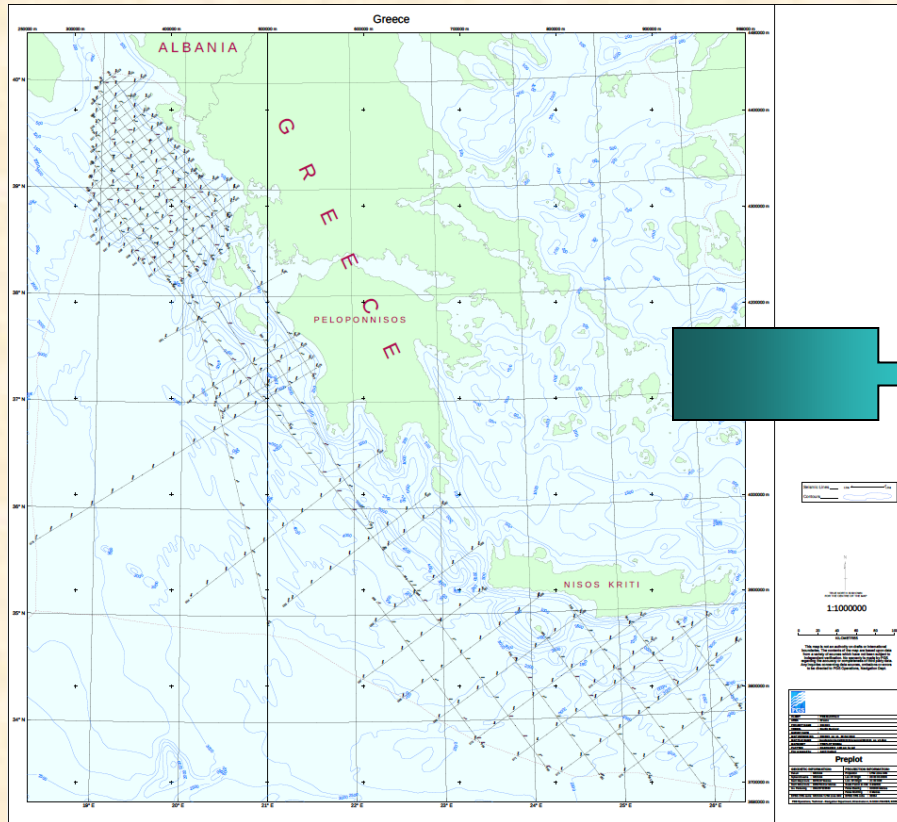
- In 1995, the EU directive 94/22/EP has been adopted by Greek Law 2289 /1995 and was amended in 2011 (Law 4001) following extensive consultations with oil and gas specialists and well known authorities in London, Oslo and elsewhere.
- The provisions of the new framework introduce:
 - (1st) a 25 years long lease scheme with two 5 year extensions (In total: 25+5+5) and
 - (2nd) a 20% corporate tax and 5% regional tax on the net revenues.
- In addition, government take is based on royalties.
- The adapted lease agreement is of concession type.
- The **Hellenic Hydrocarbons Resources Management S.A. (HHRM)**, is the competent State authority, that will take over from the Ministry the responsibility for upstream activities and licensing.
- At present upstream activities are managed by the Petroleum Policy Directorate of MoEECC.

Current Status – New Data Acquisition

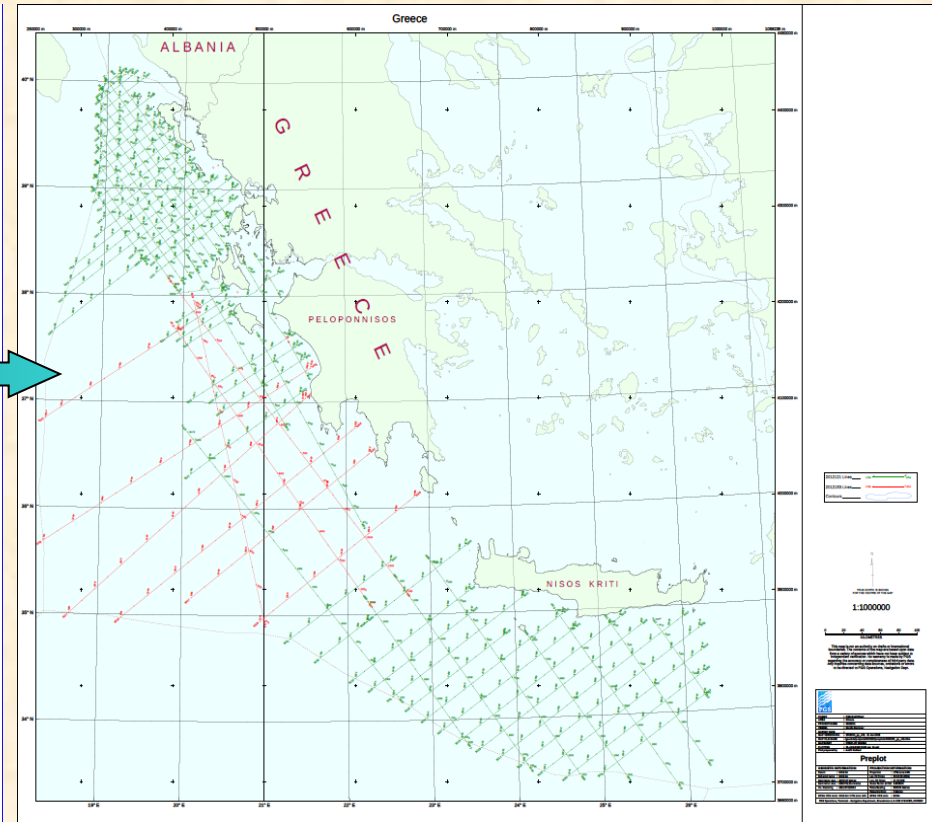
Since the law update in 2011 (law 4001/2011) E-activities picked up a new momentum and the new provisions of the law “non exclusive seismic” and “Open Door” are implemented:

- Following an international call for tenders for the acquisition, processing, reprocessing of legacy data and interpretation of non exclusive 2D offshore seismic data in the Ionian Sea and south of Crete, Petroleum Geo-Services (PGS) signed an agreement with MoEECC in October 2012.
- A total of 12,500 Km new 2D acquired lines which cover an area of 225,000 sq.km, demonstrate the strong interest of the relative industry (IOCs). The adaption of the state of the art PGS GeoStreamer[®] (streamer length 10km) and GeoSource[®] technology will allow the imaging of both shallow and deep targets (up to 10km in depth).
- PGS is aiming to complete the processing of the new seismic data by the end of the year, while 4,500 km out of 6,000 Km of legacy data are already reprocessed.
- Interpretation is aimed to be completed by the end of March 2014.

Progress of PGS Acquisition Program

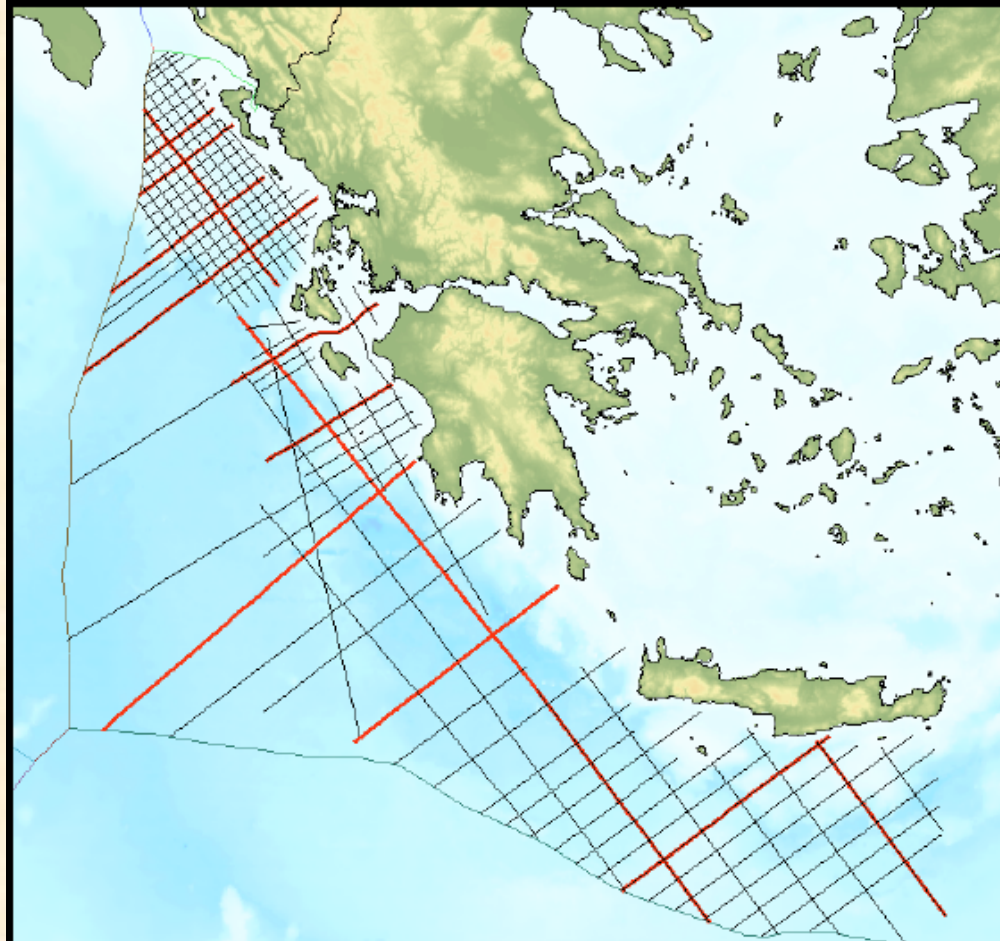


Initially proposed program of 8,500
2D line Km by November 2012



Finally executed program of 12,500
2D line Km completed by end of
February 2013

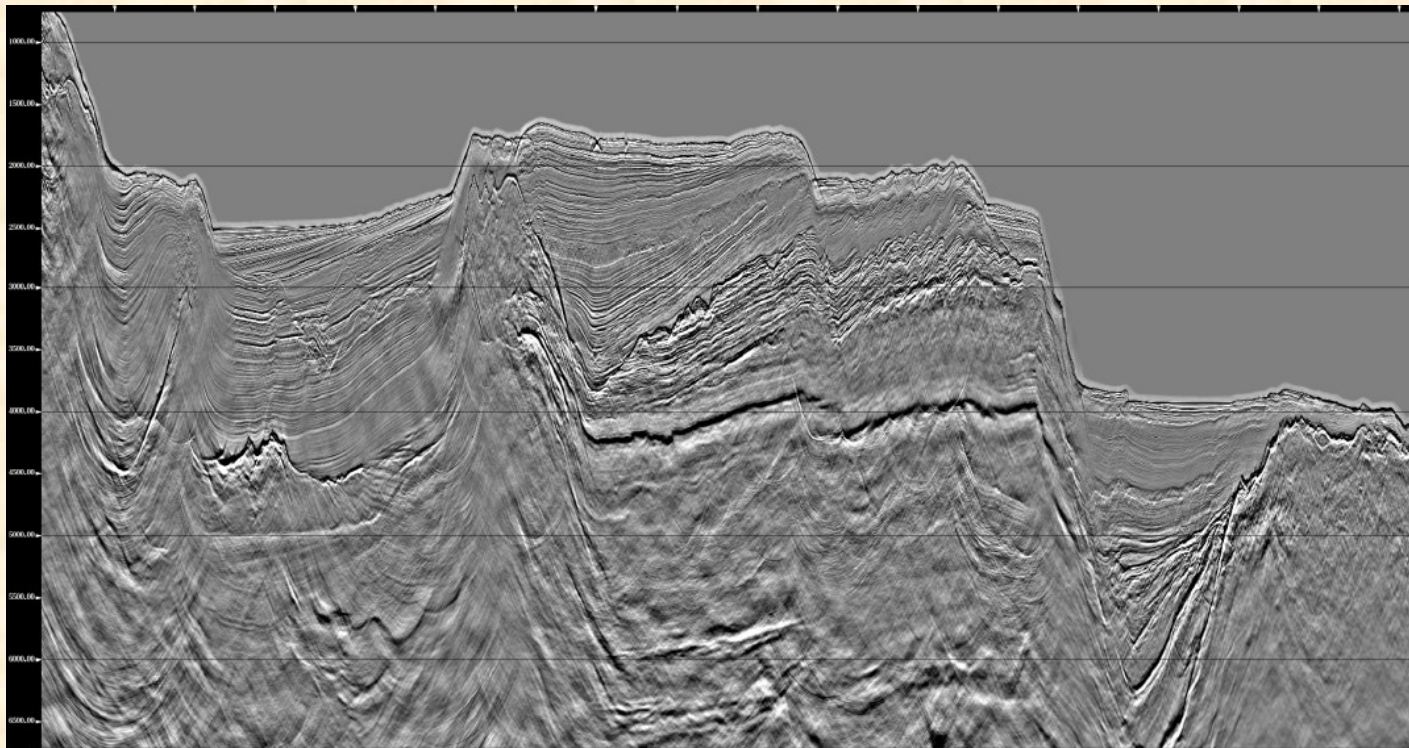
Fast Track Processed seismic lines by PGS in order to promote the new project



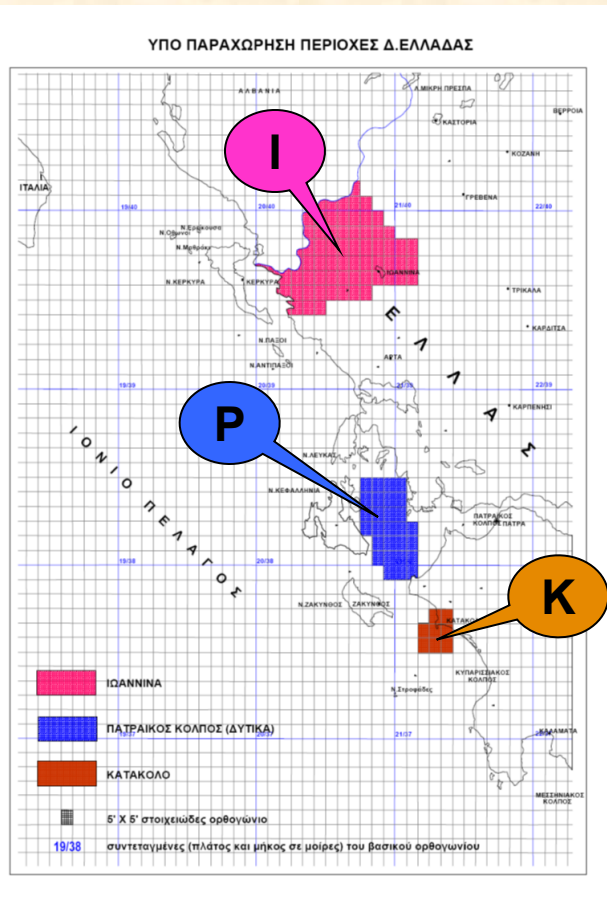
Fast track lines in red: A subset of 12 lines, 1km velocity analysis, PSTM

Example of Fast Track Seismic Line by PGS

- Fast track processed seismic lines are available from PGS
- Although Fast track lines are not fully processed, the high resolution character of the acquired data already reveal the fine stratigraphy of the Neogene sequences with impressive quality.



Current Open Door Status



- In parallel to the non exclusive seismic acquisition procedure, the Open Door provision of the Law 4001/2011 was also enacted by tendering three blocks in western Greece awarded during the First Round in 1997 for granting E&P rights.
- Namely : Ioannina (magenta, onshore NW), Patraikos Gulf (blue, off shore W) and Katakolon (brown, offshore W) - the latter being a discovery.
- The preferred bidders are already announced for Ioannina (J/V Energean Oil & Gas and Petra Petroleum) and Patraikos west gulf (J/V HELPE, Edison and Petroceltic).
- For the Katakolon block a forced-marriage option between Grekoil E.V. and J/V Energean Oil & Gas and Trajan Oil & Gas has been exercised.

DATA PACKAGES prepared for the Open Door



The individual geoscientists of the Ministry performed a titanic effort to manage and prepare all the bureaucratic procedures for the tendering and in parallel to prepare the data packages required to promote the areas to be licenced.

In this context, three complete Data Packages have been prepared and sold to the interested IOCs.



SEA Ratifications Status

- Uploading of Joint Ministerial Decree on Katakolon SEA ratification, ΑΔΑ: ΒΛΩΛ0-7ΑΑ (Α.Π. 169895/08.08.2013)
(ΚΥΑ έγκρισης ΣΜΠΕ Κατακόλου)
- Uploading of Joint Ministerial Decree on W. Patraikos Gulf SEA ratification, ΑΔΑ: ΒΛΩΛ0-0ΗΡ (Α.Π. 169896/08.08.2013)
(ΚΥΑ έγκρισης ΣΜΠΕ Δ. Πατραϊκού Κόλπου)
- Uploading of review of Public Consultation Comments of the above SEAs
- Expected the ratification of Ioannina Block SEA

Investors can also have the Initiative

- According to the provisions of the Petroleum Act, new tenders may also be initiated by investors who wish to explore either new areas delimited by the potential investor or other previously awarded blocks (abandoned and/or returned to the State) and apply to the Ministry.
- The acceptance of the proposal is at the Ministry discretion. If accepted, then the approved area (block) opens to international tender according to EU obligations on transparency and competition.
- The Ministry accepts offers for evaluation following publication of the tender announcement in the official EU gazette for a minimum of 90 days.
- Such a process has been recently enacted by the Ministry following the acceptance of a Greek–Israeli partnership for offshore E&P rights in Thermaikos and Orfanos Gulfs (Central Macedonia District, to the West and East off the coast of Chalkidiki peninsula)

Accepted Individual Initiative

By Ministerial Decree (Δ1/Α/οικ.18129, Gov. Gazette B 2530/08.10.2013) the application submitted by Energean Oil and Gas SA and Ratio Oil Exploration Ltd for E&P in areas of **O**rfanos and **T**hermaikos Gulfs (2.9.2013) has been accepted, leading to the opening of those areas to a licensing round.



Map from Imerisia newspaper 18/09/2013

Schematic representation of the areas to be tendered.
Further announcements will follow soon

Forthcoming Licensing Round

Following the:

- Completion of the seismic data processing & interpretation,
- Oil potential assessment studies,
- Block design in offshore areas covering the Ionian Sea and South of Crete.
- Preparation and approval of necessary SEAs (strategic environmental assessment) and
- Notification to the EU Gazette scheduled for June 2014;



The new round will be launched in the 3Q of 2014.

Given the already known working oil systems in western Greece and their analogues in Albania as well as in S. Italy, combined with the results of the new Megaproject (PGS), the new tender is expected to be exciting and successful.



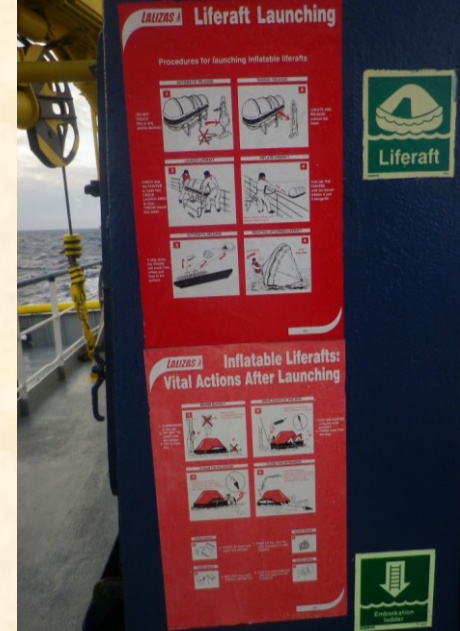
HSE Obligations

Greece as a EU Member State is:

- Committed to all relevant international protocols, agreements and EU legislation.
- Actively encouraging best oil practices.
- Adapting the new 2013/30/EC Offshore Safety Directive. For this purpose the Ministry appointed a Working Group of Specialists to draft a new law in compliance to this EU Directive (21.10.2013).

We are further committed to:

- Protect and preserve the environmental and cultural heritage.
- Positively involve the local communities in the upstream industry.
- Maintain the quality of our country's touristic product.



Concluding Remarks

- Greece as a member of EU based on its strategic location on the cross-road connecting Europe and Asia will ensure a safe and stable energy supply through the new energy networks developed and the new energy resources to be discovered.
- Greece is revitalizing its upstream sector, coming back as a new player in SE Europe and East Mediterranean Sea. However, Greece has been an oil producing country since the early 80s, with an excellent environmental record, qualified scientific staff and competent technicians.
- The new legal framework is business friendly, ensuring a competitive tax regime (20% corporate plus 5% regional tax) and a total lease period of 35 years (25, plus 5+5 years extensions).
- The Government will fully adopt the new EU offshore Safety Directive and expects nothing less but the best oil practices to be employed in this maritime and touristically sensitive part of the world.
- Greece is steadily pulling out from its fiscal difficulties with restructuring its economy, a stable country with good long term investment prospects.
- The success of the two international tenders (Non Exclusive Seismics and Open Door 2012) represents the basis to start and encourages more players to come forwards in an area that aspires soon to be regarded as no longer a frontier.

Contact Info

For more information please follow the link and path below. Our site will be soon updated with more information:

www.ypeka.gr/
1. select energy,
2. then hydrocarbons (introduction),
3. then select procedure (non exclusive or open door, etc...)

Contact via e-mail at zacharopoulosa@eka.ypeka.gr (Athanasios Zacharopoulos, Deputy Director at Petroleum Policy Directorate)
or gavridoug@eka.ypeka.gr (Head of Department at Petroleum Policy Directorate)

VISIT OUR BOOTH DURING APPEX 2013 REGIONAL
5-7TH NOVEMBER, ATHENS CARAVEL HOTEL

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Present hydrocarbons working group of the Ministry

- Prof. Sofia Stamataki, Min. Eng., selected Chairperson of HHRM SA,
- Antonios Angelopoulos, Dipl. Geol. & Geophysics, Scientific Advisor to the Minister,
- Alexandra Sdoukou, BA (Law), MA, Head of Minister's Office,
- Athanasios Zacharopoulos, Dipl. Chem. Eng., MSc, Deputy Director, Petroleum Policy Directorate,
- Georgia Gavridou, BA (Law), Head of Dept., Petroleum Policy Directorate,
- Dr. Spyridon Bellas, Dipl. Geol., Seq. Stratigrapher, Petroleum Policy Directorate,
- Dr. George Tsifoutidis, Eng. Geol., MSc, Petroleum Policy Directorate,
- Iosif Athanasiadis, Dipl. Mech. Eng., MSc, Petroleum Policy Directorate

**THANK YOU
FOR YOUR ATTENTION**



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