

Pemex Farmout Day 2017

Ayín-Batsil



Attractive Investment Opportunities in Partnership with Pemex
July 2017

Public Bidding Process Administered by CNH



Introduction

Exploration wells drilled

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Prequalification Terms

Ayín-Batsil offers over 350 mmboe of undeveloped 3P reserves in shallow water

Ayín-Batsil Farmout includes four undeveloped fields and exploration acreage



Location: Campeche Basin

- 359 mmboe of 3P reserves¹
 - Primarily heavy oil
 - Multiple fields to develop
 - Ayín-Batsil holds ~80% of the volume
- Shallow waters
- ~50 km from shore
- ~24 km from existing infrastructure (“Centro de Proceso Litoral - A”)
- Initial production rates between ~1,200 bd and 0.32 mmcfd (Batsil) and ~8,200 bd and 0.33 mmcfd (Ayín) per well
- Exploration area: 1,096 Km² with 224 mmboe in prospective resources (avg., unrisked)
- Partnership to operate field

1- Reserve information as of Jan 01 2016; for more detailed information on reserves, please visit the Data Room

Note: Pemex Farmouts are offered through a public bidding process administered by CIH.

To find out more about the Farmout process, please visit: <http://www.rondasmexico.gob.mx>

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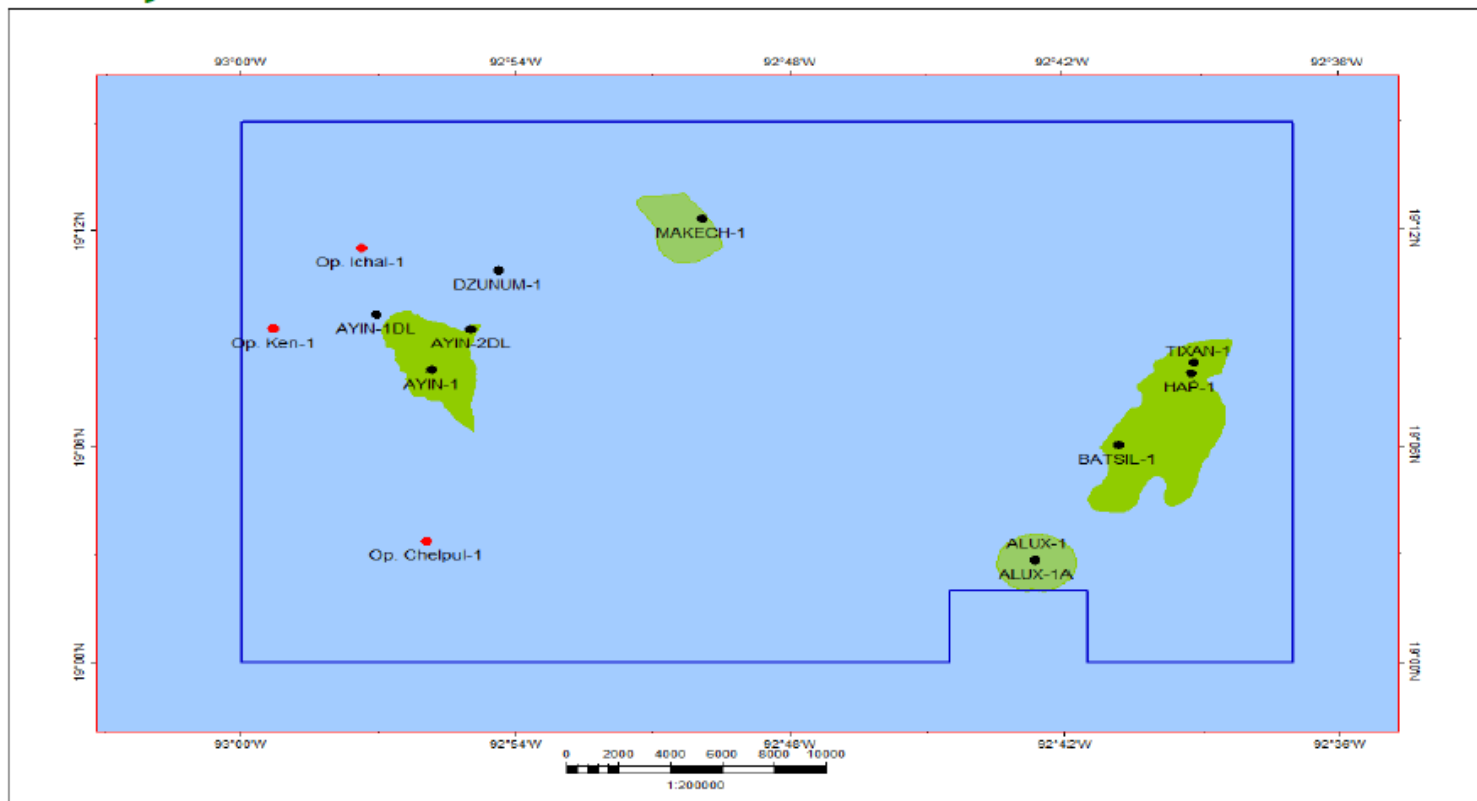
Available seismic information


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Prequalification Terms

10 exploration and appraisal wells have been drilled to characterize the Ayin-Batsil block



 Área E-0027-M

 Exploration prospects

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The 10 exploration wells were drilled between 1988 and 2015

Well	Type	Drilled year	Measured Depth (m)	Water depth(m)	Geologic Age
Alux-1	Exploration	1988	700	74	Middle Cretaceous
Alux-1A	Exploration	1990	6350	74	Middle Cretaceous
Ayin-1	Exploration	1992	6700	176	Cretaceous and Upper Jurassic Kimmeridgian
Ayin-DL1	Appraisal	1998	6422	204	Cretaceous and Upper Jurassic Kimmeridgian
Ayin-2DL	Appraisal	2010	6450	202	Cretaceous and Upper Jurassic Kimmeridgian
Dzunum-1	Exploration	1994	6457	198	Cretaceous and Upper Jurassic Kimmeridgian
Makech-1	Exploration	1998	6710	158	Cretaceous
Tixan-1	Exploration	1999	6216	87	Cretaceous and Upper Jurassic Kimmeridgian
Hap-1	Exploration	2002	2020	87	Tertiary
Batsil-1	Exploration	2015	5470	82	Cretaceous

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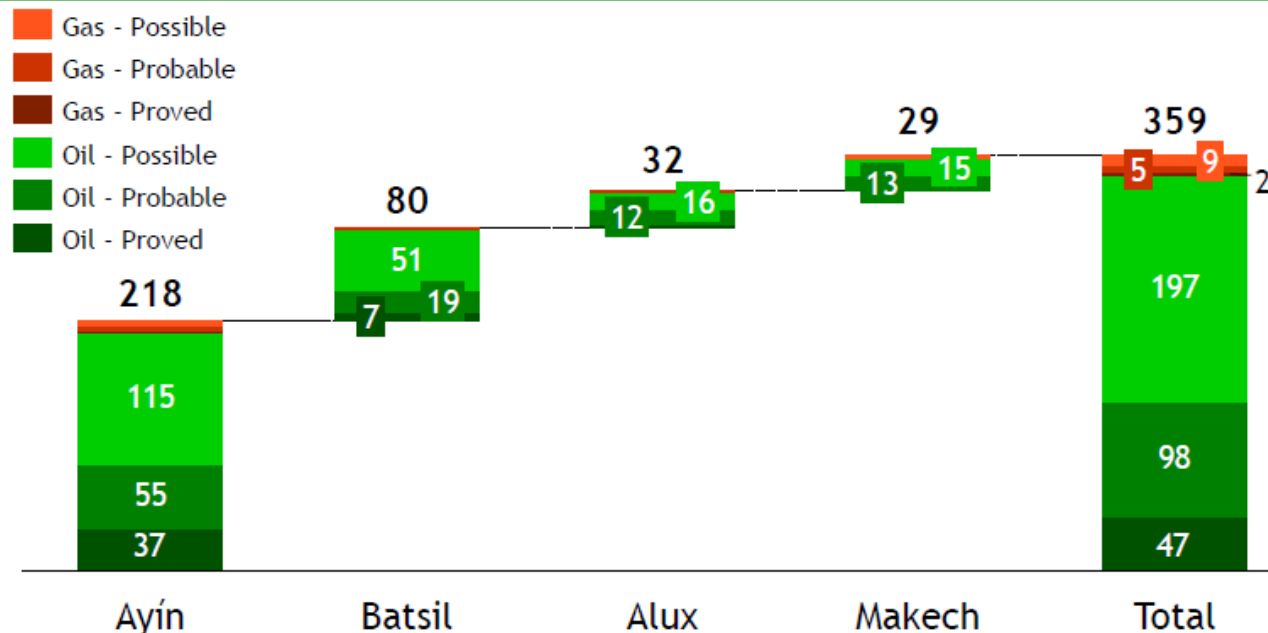
Exploration potential

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Prequalification Terms

The fields have a total of 359 mmboe of 3P¹ reserves

Undeveloped reserves per field¹ (mmboe)



- Ayín is the most relevant field with ~60% of the total 3P reserves
- Batsil is the second in size, with ~20%
- Alux and Makech could potentially be developed as subsea tie-backs to Ayín-Batsil
- ~95% of the 3P reserves are oil

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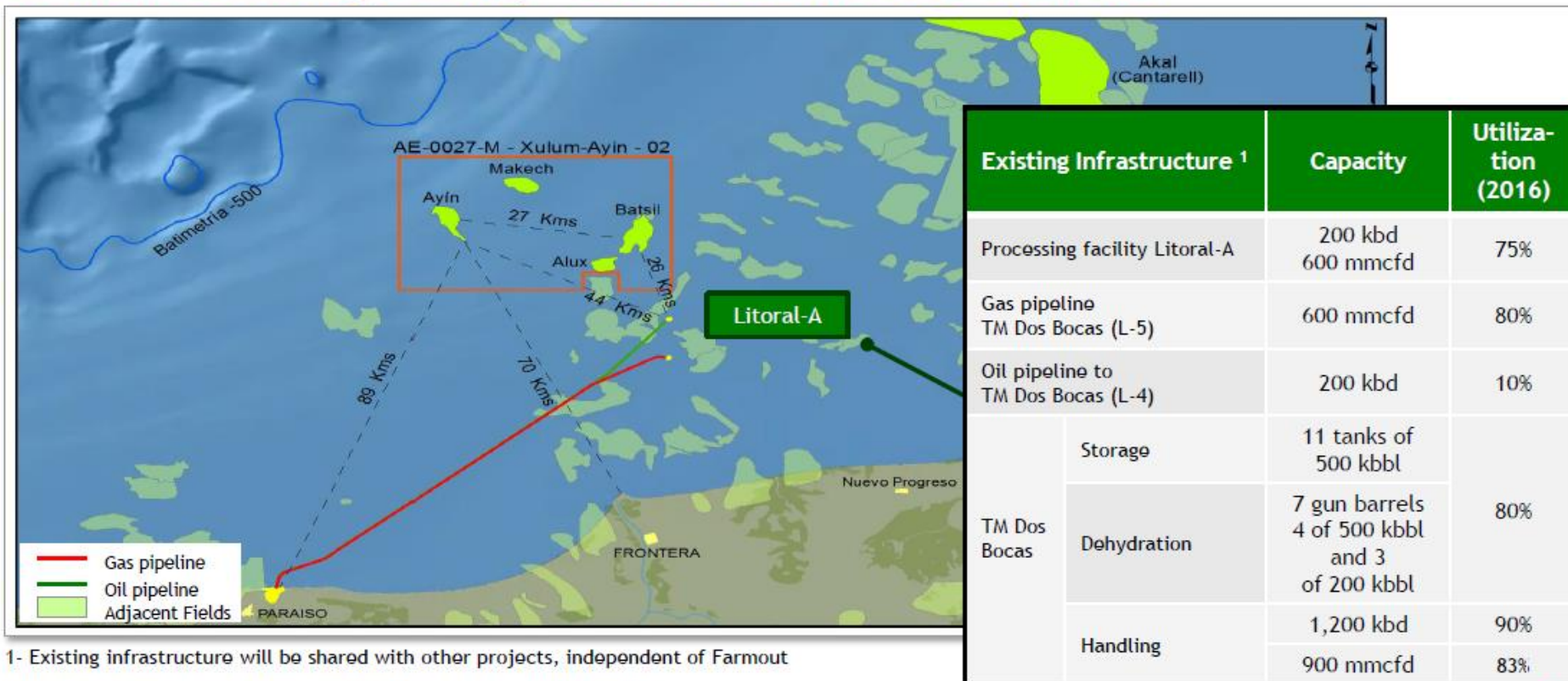
Available seismic information

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Prequalification Terms

AYÍN-BATSIL is located ~ 30 km from existing production infrastructure at the Processing Facility “Centro de Proceso Litoral-A”



1- Existing infrastructure will be shared with other projects, independent of Farmout

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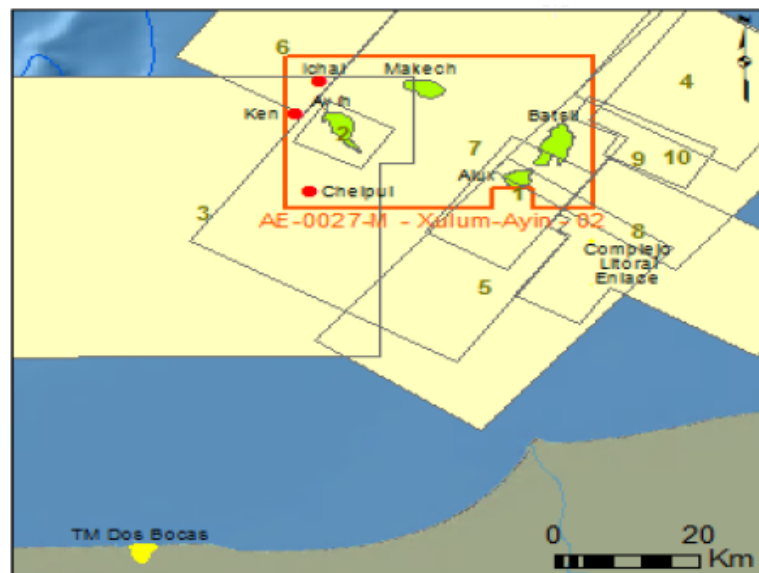
Exploration potential

Additional technical details

Prequalification Terms

The area has been 100% mapped with 3D seismic using different processes and qualities

Map of seismic available



Seismic data information

#	Seismic studies	Acquisition year	Bin size (m)	Type of processing PSDM
1	Akpul-Q	2004	25 x 25	PSTM ¹
2	Ayín	2004	25 x 25	PSTM-PSDM ²
3	Bolol	2004	12.5 x 25	RTM ³ isotropic
4	Chuc Och	2002	25 x 25	POSTSTM ⁴
5	Choch Mulix Obc	2002	25 x 25	CBM ⁵ anisotropic
6	Chuktah	1996	12.5 x 50	CBM isotropic
7	Le Acach	1991	13.33 x 53.34	CBM isotropic
8	Mucuy	1994	25 x 25	PSTM
9	Tabal	2003	12.5 x 25	CBM isotropic
10	Uech Kokay	1987	25 x 25	POSTSTM

1: Pre-Stack Depth Migration
 2: Pre-Stack Time Migration
 3: Reverse Time Migration

4: Post-Stack Depth Migration
 5: Controlled Beam Migration

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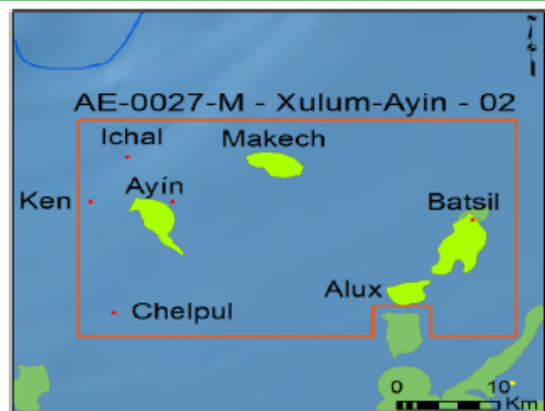
Exploration potential

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Prequalification Terms

The three exploratory opportunities offer 224 mmboe of prospective resources (average, unrisks)

Exploration area



Total area: 1,096 km²
 (~270,000 acres)
 Shallow waters
 Campeche basin

Details of the 3 exploration prospects

Exploratory opportunities	Prospective resources (avg., unrisks) (mmboe)	Geologic probability Pg (%)	Expected type of hydrocarbon	Measured depth (m) and water depth (m)
Ichal	73	35	Oil API gravity: 25-26	6,000 // 246
Ken	81	37		5,750 // 232
Chelpul	70	35		7,150 // 132

Total depth
 Water depth

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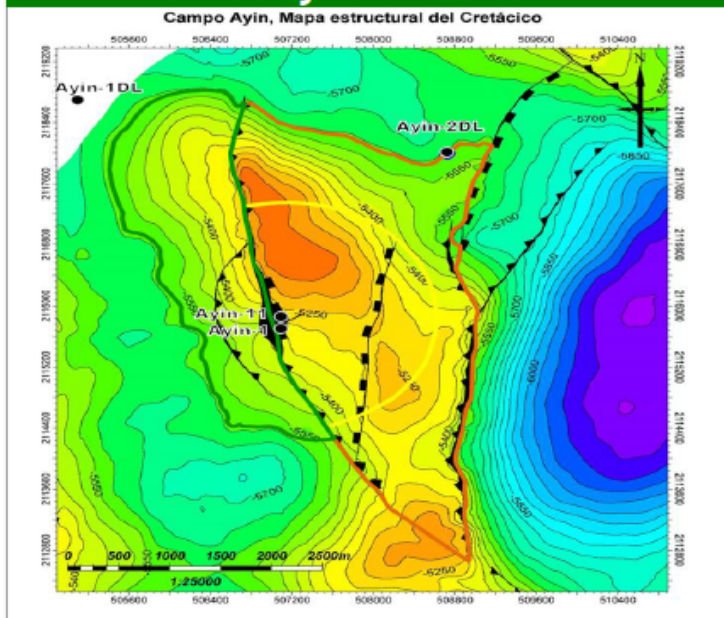
Exploration potential

Additional technical details

Prequalification Terms

Technical Highlights of Ayín

Top of the Play Ayín field



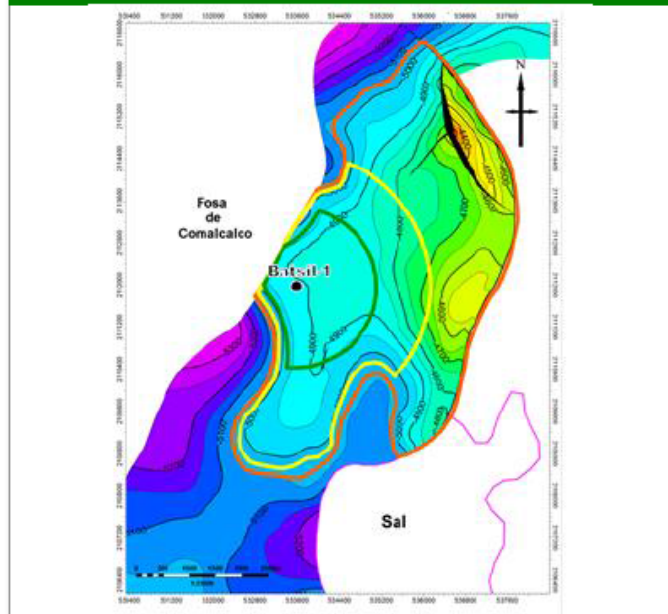
Technical Information

Depth (m)	5,710
Net pay (mv)	306.2
Porosity (%)	3-5
Permeability (mD)	20
Oil gravity (°API)	26°
Viscosity (Cp)	~2
Initial Pressure (kg/cm ²)	940
Current Pressure (kg/cm ²)	940
Temperature (°C)	154
Drive mechanism	Water Drive
OOIP and OGIP	684.2 mmbbl & 201.72 bcf
Structure profile	Upper seal and trap w/compressive structures

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Technical Highlights of Batsil

Top of the Play Batsil field



Technical Information

Depth (m)	5,270
Net pay (mv)	49.5
Porosity (%)	6-8
Permeability (mD)	57.7
Oil gravity (°API)	20°
Viscosity (Cp)	~6
Initial Pressure (kg/cm ²)	839
Current Pressure (kg/cm ²)	839
Temperature (°C)	131
Drive Mechanism	Water Drive
OOIP and OGIP	335.88 mmbbl & 54.5 bcf
Structure profile	Upper seal and trap w/compressive structures

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Prequalification Terms (CNH bidding process)

PREQUALIFICATION TERMS - AYÍN-BATSIL

EXPERIENCE

- 1) Should have integral experience as an Operator:
 - a) In at least 3 E&P offshore projects with water depth equal or greater to 150 meters during the last 5 years

PRODUCTION

- 2) Production of 10,000 BOEPD or more in offshore fields at a depth of 150 meters or more during the last 5 years

FINANCIAL

- 3) At least 2,000 million of CAPEX in E&P projects during the last 5 years

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Please note that the official public bidding process is administered by CNH (Comisión Nacional de Hidrocarburos). For official information about the Farmout process, please visit: <http://www.rondasmexico.gob.mx>.

*To find out more about the Farmout process, please visit:
<http://www.rondasmexico.gob.mx>*

