CONTENTS PART-I

1. GUATEMALA

2. Industry Background

3. Open Round Guatemala 2011

4. Legal aspects and contracts

5. Communities and environmental priorities
GUATEMALA IN CENTRAL AMERICA

✓ Oldest democracy
✓ population: 14,361,666 million inhabitants (2010)
✓ crude producer: 11,000 b/d (2010)
✓ economy: GDP: US$38,139.00 millions GDP for 2009, representing 33% of the Central American region’s total GDP.
✓ Land surface area: 108,430.00 sq km area incl. inland waters
✓ borders (land): Mexico, Belize, Honduras, El Salvador
✓ borders (coastline): Caribbean Sea (Atlantic Ocean), Pacific Ocean
✓ climate: tropical, with variations according to altitude (Guatemala City, Altitude: 4550 feet.)
Guatemala is a country which every day is becoming more and more an economic-logistic centre in the region.

In this context, the development of self supplying outlines an strategic priority to the country.

Due to potential of it natural resources, and sustained in its petroleum politic, it is located as a strategic country perfect for national and international investment.
<table>
<thead>
<tr>
<th>Ministry of Energy and Mines</th>
<th>Policy-making and control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons Directorate</td>
<td>Administration and promotion of the hydrocarbons resources</td>
</tr>
<tr>
<td>Ministry of the Environment and Natural Resources (MARN)</td>
<td>Environmental Impact Assessment as a national instrument of sustainable management (EIA)</td>
</tr>
</tbody>
</table>
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1. Guatemala

2. INDUSTRY BACKGROUND

3. Open Round Guatemala 2011

4. Legal aspects and contracts

5. Communities and environmental priorities
Hydrocarbon exploration began in Guatemala in the twenties, it remained sporadic until 1956, when the Government granted rights to several companies to carry out geological surveys. From that year to 1962 these companies performed geological mapping, aeromagnetic and seismic work in the Peten Basin.

Drilling exploration took place for the first time with the drilling of the Castillo Armas well, located in Izabal (Amatique Basin).

All the oil discoveries are located in the Petroleum Basin.

Since the companies accomplished important exploration activities: seismic, surface geology and dirilling, it resulted in the discovery of moderate oil fields: Rubelsanto 1974; Chinajá 1977; Yalpemec, 1980; Xan, 1981; caribe 1981; Tierra Blanca 1983; Chocop 1985; and Atzam, 1992.

The current hydrocarbon production and operating companies of the fields mentioned above are the following:

• Perenco Guatemala Limited
• Empresa Petrolera del Itsmo
• Petro Energy S.A.
• Petro Latina Corporation
**Perenco Guatemala Limited**

**Its principal assets in the country comprise:**
- Xan Field
- Current crude oil production: 11,000 barrels/day
- La Libertad refinery
- 475km of pipelines with six pumping stations

The Piedras Negras Terminal
Perenco operates Guatemala’s sole pipeline connecting the Xan and Rubelsanto fields to the Piedras Negras terminal on Guatemala's Atlantic coast. The facility has a storage capacity of 430,000 barrels, dispatching an average of 12 vessels per year.

Perenco also operates a sour crude refinery with a processing capacity of 5,000 barrels per day, producing light crude for use at Xan and asphalt for the Central American consumer market.

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**Empresa Petrolera del Itsmo**

**Its principal assets in the country comprise:**
- Rubelsanto, Tierra Blanca, Caribe y Chinaja Oeste, Fields
- Current crude oil
- Production 700 barrels/day

Empresa Petrolera del Itsmo sells its crude oil production to Perenco Guatemala Limited by connecting the Rubelsanto field to the pipeline.
**Petro Energy S.A.**
Its principal assets in the country comprise:
- Chocop and Yalpemehc Fields
- Current crude oil production:
  - 173 barrels/day

Petro Energy S.A. sells its crude oil production to Perenco Guatemala Limited by transporting its production to the sour crude refinery operated by Perenco Guatemala Limited.

**Petro Latina Corporation**
Its principal assets in the country comprise:
- Atzam Field
- Current crude oil production
  - 10 barrels/day

Petro Latina Corporation sells its crude production in Guatemala for the industrial consumer market.
MINISTRY OF ENERGY AND MINES
GENERAL DIRECTORATE OF HYDROCARBONS
INFRASTRUCTURE MAP

PIPELINE (KMS) AND (DIAMETER):
• Xan-Libertad, 123.4 Km., diam. 12”
• Libertad-Raxruha, 116.5 Km., diam. 12”
• Rubelsanto-Raxruha 42 Km., diam. 12”
• Raxruha-Chahal, 52 Km., diam. 12”
• Chahal-Piedras Negras, 143 Km., diam. 10”

Pipeline capacity
• Technical capacity 36,000 bbls/day
• Operating capacity 1,205 LPC
CHALLENGES

- Community consultations
- Community relations
  - Social investment
  - Employment of locals
  - Salaries
  - Local politics
- Environmental licensing
CONTENTS PART-III

1. Guatemala

2. Industry Background

3. OPEN ROUND GUATEMALA 2011

4. Legal aspects and contracts

5. Communities and environmental priorities
Hydrocarbons
To increase the national petroleum production
To promote the self supply through the creation of refineries
To promote competence and investment
To promote a sustainable development based on the country’s renewable resources
To strengthen the control of hydrocarbons and fuel prices
To support the fight against traffic in contraband
Programs

- Increase the National Crude Oil Production
  - New Areas for Bidding Rounds
  - Increase the actual exploration/exploitation
  - Good administration of Oil Goods
  - Creation of a Nation Institute of Oil
  - Transparency Poltic of access to information

- Promote the construction of a refinery in Guatemala
  - Mesoamerican Refinery
  - Offerings from Venezuela
  - Offerings from Brazil

- Strengthen the control of hydrocarbons and fuel prices
  - Strengthen the control over the fuel and hydrocarbon prices structure.
  - Train personal related to the control of prices.
  - Establish a join system with SAT – Superintendency de Administracion Tributaria.

- Promote social benefits for areas influenced by The oil development
  - Creation of a Petroleum Fund Law
  - Join work with Vice minister of Sustainable Development

- Fight against traffic in contraband
  - Strengthen the exchange of information among SAT – MEM – MP – MDN – MG – MINECO in order to implement a program which will fight against the illegal traffic of fuels.

Hydrocarbons
Bidding Round and Increment of Petroleum Production

Investment opportunities

Direct and Indirect generation of new jobs

Physical Development of Infrastructure

Opportunities for new suppliers of services

Implementation of new technology and special equipment to the country
Guatemala is aware that international oil and gas discoveries have become smaller and less frequent during the last two decades, with the exception of deep offshore areas.

Guatemala is fortunate to have three petroleum basins, only one of which has been partially explored.
GEological SCOPE

Guatemala is a geologically diverse country. The Peten Basin covers most northern and central onshore Guatemala. It is divisible into distinct northern and southern basins.

The thick Cretaceous-Tertiary carbonate and clastic sequences which overlie late Jurassic sediments, are the main objectives of the oil exploration in the Guatemala sedimentary basins. Facies changes and the subhercynian and Laramide tectonic events allowed the development of a variety of stratigraphic and/or structural tramps in the Peten Basin. Within the Cretaceous, the organic rich limestone and dolomite horizons are the source rocks for the hydrocarbons found in the country.

The Tertiary section comprises thick sandstone strata interbedded with shales. A major oil seep demonstrates the oil generation potential of these sediments. Facies changes and the Post-Miocene structural development comprise the main exploration objectives in the Tertiary Basins.
North Peten Basin is of the Sabhka type, as indicated by the high proportion of evaporite rock. It comprises a passive shallow carbonate platform, with local reef development, of low structural relief, disrupted by occasional normal faulting. The county’s main petroleum production comes from Xan (Coban B8-B-11) is characterized by fractured carbonate reservoir rocks at a depth of approximately 7,500 feet.
Information is available at the Technical Archives (DATA ROOM) of the General Directorate of Hydrocarbons in Guatemala city and it is provided at no cost. Only the reproduction expenses must be covered by the interested party. This information includes:

**Gology.** Electronic logs, lithological logs, final reports, sedimentological studies, formation tests and other related studies are available. Additional data: surface maps, photogeological, structural and integration studies. Thin sections, cuttings and core samples from some wells are available for further study.

**Gophysics.** Seismic digital data, shot point and isochron maps, survey, processing and interpretation reports, Gravity and magnetic surveys: interpretation reports, anomaly maps.

**Reservoirs:** Well testing data, PVT Analysis Reports, Production History, Oil in place Estimates, Well Completion Diagrams, Driller’s Log, drilling programs and reports, amd other related studies are available.

**Logistics:** geographic, topographic, road and well site maps
### Stratigraphy of the Peten Basin from Mexico (Reforma) to Guatemala

<table>
<thead>
<tr>
<th>Age</th>
<th>NW</th>
<th>GUATEMALA (PETEN BASIN)</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Pliocene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Miocene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oligocene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eocene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paleocene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper Cretaceous</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower Cretaceous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 my</td>
<td>Jurassic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The diagram illustrates the stratigraphic distribution with distances in km and ages in my.
Stratigraphy of the Peten Basin

**Chronostratigraphy of the Peten Basin**

**Igneous-Metamorphic Basement**

**Pre-Carboniferous**

**Permocarboniferous**

**Jurassic**

**Medio-Sierra**

**Cretaceous**

**Superior**

**Equator**

**Paleocene**

**Eocene**

**Oligocene**

**Miocene**

**Pliocene**

**Oligocene**

**Fm. Tactic**

**Fm. Chochal**

**Fm. Todos Santos**

**Fm. Buena Vista**

**Fm. Cambio**

**Fm. Sepur**

**Fm. Campur**

**Fm. Verapaz**

**Fm. Xancol**

**Probable Reef**

**Salt**

**Source**

**Reservoir**

**Oil production**

**Seal**

**North Peten Basin**

**La Libertad Arch**

**South Peten Basin**
Generalized Stratigraphic Column of the Peten Basin

- **TERTIARY**
  - NEOCENE
  - PALEOCENE
    - SENONIAN
    - CONIACIAN
    - CENOMANIAN
    - ALBIAN
    - APTIAN
  - NEOCOMIAN
  - SUPERIOR
    - TODO SANTOS
  - PZ PERMIAN
    - SANTA ROSA
    - MACAL

- **FORMATION**
  - CARIBE
  - SEPUR
  - PETEN
  - CAMPUR
  - “A”
  - “B”
  - “C”
  - “D”

- **LITHOLOGY**
  - DOLOMITES
  - FRACTURED DOLOMITES
  - OOLITIC BANKS

- **PRODUCING FIELD**
  - XAN, CHOCOP
  - RUBEL SANTO
  - CARIBE, TIERRA BLANCA
  - YALPEMECH CHINAJA OESTE

- **IN THOUSANDS OF FEET**

- **Characteristics of the Reservoir rocks**

- **PETROLEUM PRODUCING HORIZONS**

- **SOURCE ROCKS**

- **OIL SHOWS**
Guatemala starts a new stage with the bidding of 4 areas to celebrate Petroleum Exploration and Exploitation in order to increase the energy capacity.
PTN-1-2008

• Surface Area
143,344.5 hectares

• Objective
Evaluate two principal structures, Yalcanix and Paso Caballos, both of which have oil and/or gas shows. Yalcanix has an accumulated production of 1044.73 bbl of 26-27 API oil from production tests.

• Available Information
Well reports and logs from the 4 wells within the area, 16 lines of 2D seismic.
PTN-3-2008

• **Surface Area**

108,119.31 hectares

• **Objective**

Evaluate the potential of the San Francisco Structure, which had oil shows during the drilling of the San Francisco-1A well. The southern part of the area has not been explored.

• **Available Information**

Well reports and logs, 3 2D seismic lines, regional surface geology.
Surface Area
99,217.33 hectares

Objective
Determine the potential of three structures defined through magnetic & gravity methods. These structures have apparent closure within the Cobán C (actual producing formation) and Cobán D.

Available Information
Regional gravity and magnetic studies, regional surface geology, part of one regional seismic line.
<table>
<thead>
<tr>
<th>Formación</th>
<th>Estructura A</th>
<th>Estructura B</th>
<th>Estructura C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobán C11</td>
<td>10,493.68 acres</td>
<td>33,651.49 acres</td>
<td>47,421.56 acres</td>
<td>91,556.73 acres</td>
</tr>
<tr>
<td>Cobán D</td>
<td>56,684.74 acres</td>
<td>26,440.92 acres</td>
<td></td>
<td>83,125.66 acres</td>
</tr>
</tbody>
</table>
PTN-6-2008

• **Surface Area**

99,526.09 hectares

• **Objective**

Determine the potential of various anticlines within the area, the principal of which is the Xalbal anticline. The Xalbal-1 well had various oil shows within the Cobán B.

• **Available Information**

Well reports and logs, 17 2D seismic lines, gravity and aero-magnetism studies.
CONTENTS PART-IV

1. Guatemala

2. Industry Background

3. Open Round Guatemala 2011

4. LEGAL ASPECTS AND CONTRACTS

5. Communities and environmental priorities
APLICABLE LEGISLATION

- Hydrocarbons Law, Governmental Decree Number 109-83.

- General Regulations, Governmental Decree Number 1034-83.

- Bidding Regulations to the celebration of Petroleum Exploration and Exploitation Operations Contracts, Governmental Decree Number 754-92. and, Governmental Decree Number 764-92.

- Contract Model for the celebration of Hydrocarbon Exploration and Exploitation Contracts, Governmental Decree Number 190-2005 and its Accounting Annex, Governmental Decree Number 189-2005.
The entire bidding process will be audited by an international auditing firm of recognized standing and the process shall be verified by Acción Ciudadana.
The call for bids is officially opened and invites every person individual or corporate, national or foreign, to present bids for the celebration of Hydrocarbon Exploration and Exploitation Contacts.

The legal information related to each period of bid reception will be available to the interested people at The General Directorate of Hydrocarbons, and the technical information will be available at the Data Room oh this same Directorate.

The oficial language is Spanish, the information and documentation referred in the articles must be presented in Spanish. Any documentation that is not typed in Spanish must be legaly translated to Spanish.

The bids will be presented inside a sealed envelope, signatures legalized by Notary Public. Each of the bids will be accompanied by five (5) legible simple copies in the same package.
PERIOD AND RECEPTION OF BIDS

The bids will be received, as referred in the Minister’s Council Governmental Decree, on April 8, 2010 from 9:00 to 12:00 a.m., at the Conference Room of the National Petroleum Committee, located on the first level of the Ministry of Energy and Mines, seventeen Diagonal (17) twenty nine -seventy eight (29-78) eleven zone (11), Guatemala City.

Each bid will be presented inside a sealed envelope, on its cover, the name or names of the bidders will be written together, No bidder individually or joint, can participate in more than one bid for the same area. No bid can present alternatives. Bids sent by mail, will not be accepted.
MINIMUM STIPULATIONS

The minimum stipulations of such contacts, are the same of the ones foreseen in The Governmental Decrees: 297-2010, 296-2010, 295-2010 y 299-2010 all dated October 25, 2010, delivered by the Ministry to the Presidency of the Republic for its consideration and approval through a Minister’s Council Governmental Decree.
OTHER DOCUMENTS AND INFORMATION

REQUIRED INFORMATION:
• Official identification of the area object of the bid.
• Personal identification data of the bidder(s), attorneys or legal representatives.
• In the case of a corporation, place and date of its constitution.

REQUIRED DOCUMENTS:
• Document or documents that credit the legal capacity of the signer or signers of the offer.
• The endorsement of the technical-financial standing of the company of the bidder.
• To credit technical standing (legalized by Notary Public)
• To credit joint bidders technical standing (if applicable)

XEROX COPY OF THE VOUCHER OF PAYMENT OF THE ADMINISTRATIVE FEE, FOR BID PRESENTATION MUST BE INCLUDED
BID PRESENTATION FEE AND GUARANTEE BOND

BID PRESENTATION FEE

Twenty five thousand dollars (US$ 25,000.00)

GUARANTEE BOND

One hundred thousand dollars (US$ 100,000.00)

To make these payments the bidder representative must show at the Fiscalization Unit, located at the third level of Despacho Superior building, a payment order will be issued, the payment must be made at the cash register at the first level of this institution main building. The payment can be made with a bearer check or a deposit payable at the Banco de Guatemala.

In case the bidder withdraws its bid, the MEM could execute or make effective the guarantees, according to the referred in the article 27 of the regulation of public notice to celebrate contracts of exploration and exploitation of hidrocarbons, without need of previous judicial procedure, by written request.
The amount of the bond that the bidder must present to guarantee the offer:

- Q 100,000.00 equivalent to (US $12,500.00)

For every complete hectare during the first contractual year:

- US $0.25/hectare.

Service fee (Exploitation contract model):

- Q 50,000.00 equivalent to (US $6,250.00) for every complete exploitation area.
Prior starting the compromised activities, referred to in article 5 of the Governmental Decrees.

Obligatory indirect exploration phase: The first 3 contractual years.

Direct Optative Exploration phase: From 4 to 6 years.

(1) year extension at this phase, after an evaluation

Contract Termination

Commercial Declaration

Ministry Decree

Exploitation phase

YES

NO
The model was approved by Government Decree 190-2005 and Accounting Annex, Government Decree 189-2005 based on the “Production Sharing Contract model”, used internationally, with the following characteristics:

- Exploration phase, the contractor assumes 100% risk.
- The Government receives royalties plus a percentage of profits from the operation.
- The contractor is allowed to recover the costs, as referred in the accounting Annex of the subscribed and approved contract, and as referred in the Hydrocarbons Law and its Regulations.
ECONOMIC FLOW
Exploration Phase

TOTAL INCOME (Production * price)

SPECIAL ROYALTY: A production from any undeclared commercial discovery will apply a special royalty of thirty-five percent (35%) based on a monthly production volume.

SPECIAL STATE PARTICIPATION IN THE PRODUCTION: A production from any undeclared discoveries, where cannot be attributed applied recoverable costs, excluding royalties, the percentage % will be according to the net production corresponding to the different intervals of shareable hydrocarbons production specified in the contract.

RECOVERABLE COSTS: The recovery investment or incurred expenses in petroleum operations will be accountable for the net production from the area of exploration, and if the production is insufficient to cover the expenses, the Government assumes no responsibility. (ACCOUNTING ANNEX), as referred in paragraph 6 of the Governmental Decrees.
ECONOMIC FLOW
Exploitation Phase

TOTAL INCOME (Production * price)

ROYALTY: Calculated according to the ° API Density. When ° API Density = 30 ° the Royalty = 20%, and this increases or decreases by 1% percent per ° API Density higher or lower than 30 ° API Density, the Royalty won’t be less than 5%.

RECOVERABLE COSTS: The company will have except the royalty, prior authorization of the MEM the accountable recoverable costs for the net production, corresponding to the different intervals of shareable hydrocarbons production. (ACCOUNTING ANNEX)

STATE PARTICIPATION IN THE PRODUCTION: The scale of State participation in the net production will be at a minimum of 30% which will increase in relation to the different intervals of shareable hydrocarbons production or the monetary value of the net production.
TAXES AND OTHER PAYMENTS

ANUAL PAYMENTS (from the second contractual year)

US$ 0.25, for every complete hectare including in the exploration area, direct and indirect.

US$ 5.00, for every complete hectare included in the exploitation area.

TRAINING OF GUATEMALAN PERSONNEL

The company acquires the obligation to the training of Guatemalan personnel, US$ 25,000.00, for each contractual year in the exploration phase.

CONTRIBUTIONS FOR COMMUNITY DEVELOPMENT

The company acquires the obligation to carry out projects for the benefit of the surrounding communities. (The State will recognize up to 0.5% the value of the yearly tax value).
OBLIGATORY INDIRECT EXPLORATION PHASE

Is the phase that includes the first three years of the contract, which the contractor acquires the obligation to complete:

- Aeromagnetic survey.
- Gravimetric survey.
- To acquire, to process and to interpret seismic data in two dimensions (2D).
- To acquire, to process and to interpret seismic data in three dimensions (3D).
- To drill an exploratory well to reach the geological basement or depth established in each bidding area.
DIRECT OPTATIVE EXPLORATION PHASE

Within the 4th to the 6th contractual year, inclusive, the company compromises to drill an exploratory well per year, to the established depths.

If the company returns in its totality the area of exploration before the beginning of the periods indicated above, the company doesn’t acquire the obligation to drill exploratory wells for the contractual years after the effective return date.
TECHNICAL OBLIGATIONS

EXPLOITATION PHASE

Is the phase after the discovery of hydrocarbons and commercial declaration of the field:

• To delimit, to develop and to exploit the commercial field.

• To implement accordingly the development field program which has to be restructured annually.

• To drill a development well per year.
CONTENTS PART-V

1. Guatemala

2. Industry Background

1. Open Round Guatemala 2011

2. Legal aspects and contracts

3. COMMUNITIES AND ENVIRONMENTAL PRIORITIES
The company will have the commitment to improve the lives of the local communities.

To incorporate projects that include:

- education,
- medical support, and
- agriculture.
The environmental impact assessment is a tool that has been adopted by the Central American region.

This instrument regulates the economic activities (production, industrial, services, etc.) to be lead in a sustainable manner.

The (EIA) identifies the sustainability parameters; ecosystems or environmental resources that would be affected by any economic activity.

The (EIA) is an instrument to ensure that all environmental requirements will be met by the company.