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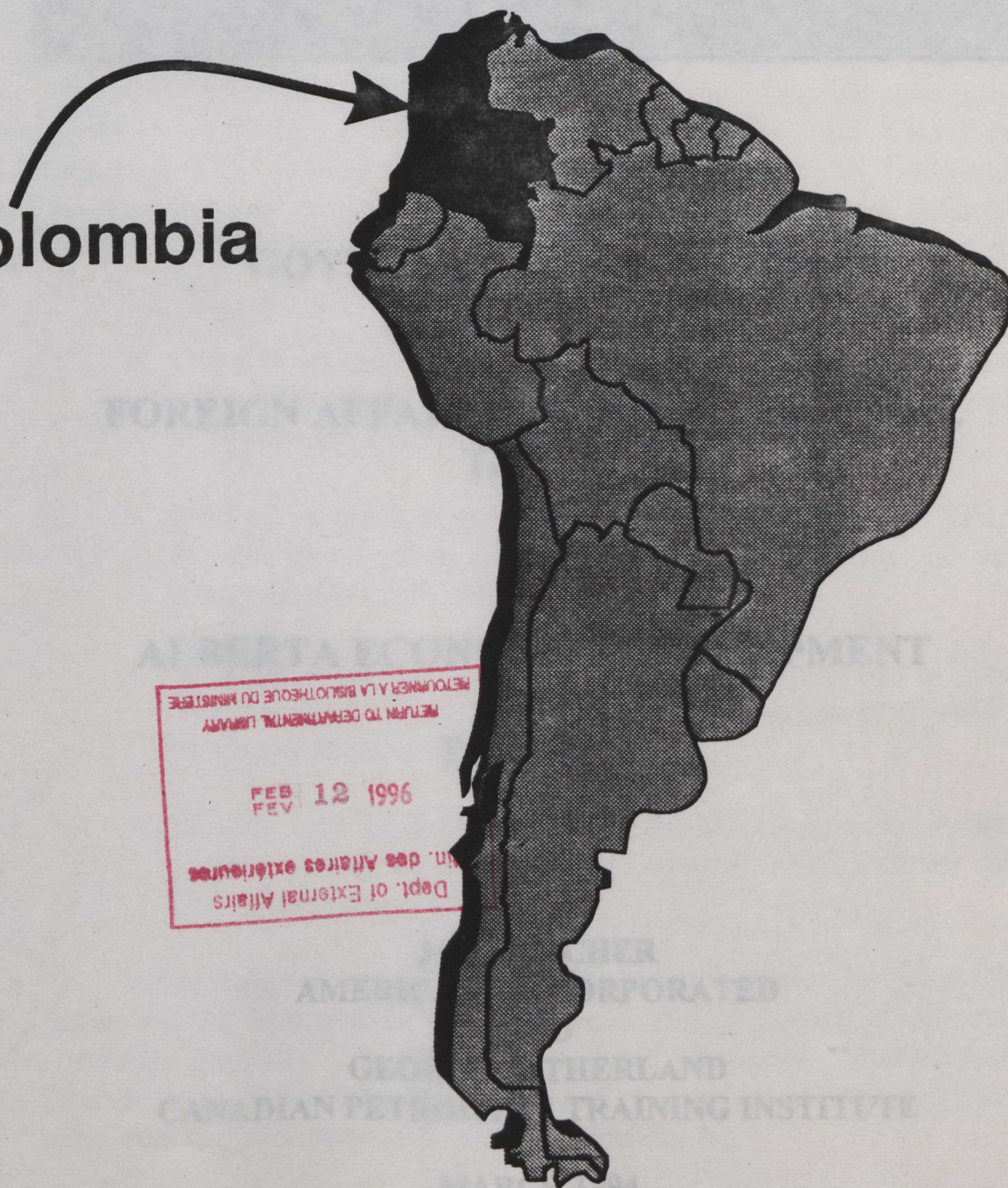
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COLOMBIAN OIL AND GAS SECTOR

OPPORTUNITIES FOR CANADIAN COMPANIES

MARCH 1994

Colombia



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CANADIAN PETROLEUM TRAINING INSTITUTE
MARCH 1994

EXECUTIVE SUMMARY

**COLOMBIAN OIL AND GAS SECTOR
OPPORTUNITIES FOR CANADIAN
COMPANIES**

Colombian petroleum service industry. To assist the Canadian petroleum sector to identify possible contract opportunities, the Canadian Government, Department of International Trade and the Alberta Government, Economic Development and Tourism initiated a study of the

PREPARED FOR

**GOVERNMENT OF CANADA
DEPARTMENT
OF
FOREIGN AFFAIRS AND INTERNATIONAL
TRADE**

Describe specific equipment, materials and services. Canadian
to develop the

AND

**ALBERTA ECONOMIC DEVELOPMENT
AND
TOURISM**

Provide an explanation of the procurement process including the decision makers and financial arrangements for the development of the Cusiana Field.

Identify any opportunities for Canadian companies in the projects being planned by the National Oil Company of Colombia (Petrocol).

BY

**JACK ARCHER
AMERICANA INCORPORATED
AND
GEORGE SUTHERLAND
CANADIAN PETROLEUM TRAINING INSTITUTE**

Americana
gather current information, meet with field in Colombia with the Canadian Embassy.
International
petroleum and service companies (see Appendix A).

MARCH 1994

EXECUTIVE SUMMARY

INTRODUCTION

The Cusiana Field was discovered in 1988 by BP and its partners Total and Triton. With estimated recoverable reserves of 1.5 billion barrels of oil, this field doubles Colombia's recoverable oil reserves. BP estimates the cost of the first three years of development of the field at \$1 billion US.

This major development exceeds the present capacity of the Colombian petroleum service industry. To assist the Canadian petroleum sector to identify possible contract opportunities, the Canadian Government, Department of Foreign Affairs and International Trade and the Alberta Government, Economic Development and Tourism initiated a study of the Colombian oil and gas industry. The primary objectives of this study are:

- Describe specific equipment, materials and services, Canadian companies are able to supply competitively, which are required to develop the Cusiana Field.
- Provide an explanation of the procurement process including the decision makers and the financial arrangements for the development of the Cusiana Field.
- As there are several key companies involved in the development of Cusiana, what is the best marketing approach for Canadian companies.
- Identify any opportunities for Canadian companies in the projects being planned by the National Oil Company of Colombia (Ecopetrol).

Americana Incorporated was contracted to conduct the study. To gather current information, meetings were held in Colombia with the Canadian Embassy, BP Colombia, Distral, Ecopetrol, Petro-Canada International Management Services and a number of other private petroleum and service companies (see Appendix A).

COLOMBIAN PETROLEUM INDUSTRY

1. Ecopetrol

The Colombian petroleum industry is dominated by the National Company, Empresa Colombiana de Petroleos S.A. (Ecopetrol). Presently Ecopetrol has 82 association contracts and 4 concession contracts covering 9 million hectares with approximately 50 companies. In April 1994, Ecopetrol will offer a further 3.8 million hectares for bid through association contracts.

1.1 Exploration

Companies with association contracts pay all exploration costs. Once a discovery is made and the field declared commercial, Ecopetrol can back in for 50%. At this point, Ecopetrol will reimburse the company for 50% of the exploration costs and assume 50% of the future production costs.

In 1994, Ecopetrol will drill eight exploration and ten development wells. The budget is broken down as follows:

- \$50 million US. for seismic surveys and exploration drilling.
- \$40 million US. for 3D seismic surveys and development drilling.
- \$60 million US. for development of new fields, if their exploration wells are successful.

1.2 Gas Distribution

Ecopetrol is expanding its domestic gas distribution network. The first phase has been bid and ENRON appears to have been the successful bidder. The second phase is for a line from Barrancabermeja to Vasconia with branch lines to Bogota, Cali and Medellin.

1.3 Refining

There are tentative plans for a new 100 thousand barrel per day (MBPD) refinery but a decision has not been made yet for the location.

The present focus on the downstream side is the automation of refineries at Barrancabermeja and Cartagena. A budget of \$30 million US has been approved for the expansion and revamping of the visbreaker and the 2000 topping unit at Barrancabermeja. A second proposal to increase the capacity by 50,000 MBPD is awaiting budget approval. At Cartagena, a budget of \$40 million US has been approved to upgrade the cracking unit and replace the topping furnaces.

2. BP Exploration Company

The large discovery by BP and its partners is to be developed in two phases to reach a rate of 300 to 340 thousand barrels per day.

The Cusiana Phase I development is currently underway. This phase involves the installation of production facilities and pipelines at an estimated cost of \$1.4 billion US. This initial phase is expected to be completed by September 1994 and thus offers few opportunities for Canadian companies.

Phase II of the Cusiana/Cupiagua development has started with a request for proposals for the preliminary engineering design work from four American and one British company. This plan is expected to be completed in 12 to 18 months.

The major items for this phase are a new pipeline from Cusiana to the Caribbean coast and the corresponding offshore facilities, the drilling of additional development wells and the associated production facilities. The budget for Phase II is \$1.5 billion US.

ENVIRONMENTAL OPPORTUNITIES

Ecopetrol will shortly publish their guidelines for environmental audits. All Ecopetrol facilities will be audited. Through the association contracts, this means an audit for the entire industry. Opportunities exist for Canadian companies to work with Colombian companies as joint venture partners.

COMPANY REGISTRATION

To obtain a contract with BP, all companies must be registered with BP. After registration, companies must follow-up on a regular basis to keep informed of future opportunities (see Appendix C).

Ecopetrol has a more complicated registration procedure. The documents must be purchased from Ecopetrol at a cost of \$300.00 US for contractors, consultants and service companies but only \$110.00 US for supply companies. As part of the registration process, a certificate of incorporation must be legalized by the Colombian Consulate in Canada. Once registered, a company must open an office in Colombia directly or through a legal representative. Once registered a trip to Colombia is essential and a plan for following up on a regular basis is a must (see Appendix D)

A letter of interest, supported by corporate and product, information is required to register with Occidental.

ACKNOWLEDGMENTS

The writers would like to acknowledge the contribution of Srs. Zen Buryanik and Carlos Eduardo Rivera of the Canadian Embassy in Bogota. Dr. Nasser Akhtar of Petro-Canadian International Management Services and Mr. Robin Lawson of Cardium Tool Services Inc. provided valuable information on the Colombian petroleum sector.

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LIST OF ABBREVIATIONS AND ACRONYMS

ARPEL	- Association of Latin American Oil Producers
BOMT	- Build, operate, maintain and transfer
BP	- BP Exploration Company (Colombia) Ltd.
BPD	- Barrels Per Day
CIDA	- Canadian International Development Agency
ECP	- Engineer, Procurement, Production Contract
ECOPETROL	- Empresa Colombiana de petroleos
GOC	- Government of Colombia
GOR	- Gas oil ratio
INDERENA	- National Institute of Renewable Natural Resources
Km	- Kilometre
kPa	- Kilopascal
LOC	- Line of credit
LSTK	- Lump Sum Turnkey Project
M	- Metres
MBPD	- Thousand Barrels per Day
MMCF	- Million cubic feet
psi	- Pounds per square inch
SCADA	- Supervisory Control and Data Acquisition

1.0 INTRODUCTION

Colombia is a country covering 1,140,000 sq. km., with a population of 32 million people. It is the only South American country with direct access to both the Pacific and Caribbean/Atlantic Oceans, providing excellent access to world markets.

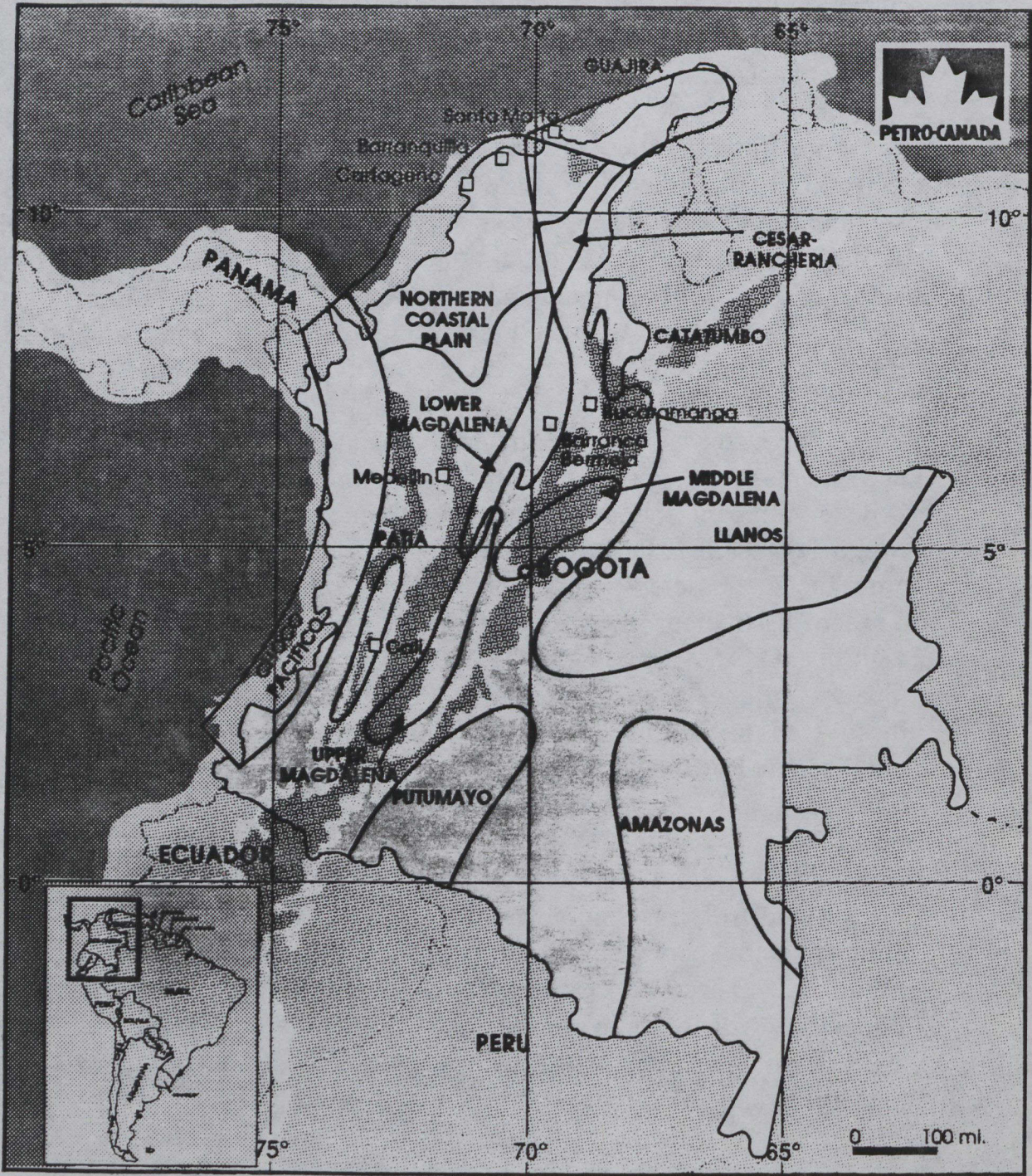
In Colombia there are six main sedimentary areas which are divided into 13 basins covering 779,203 sq. km. (See Figure 1.1). These sedimentary basins are located in the following six areas: the Magdalena Valley, the northern coastal plain and offshore Caribbean Sea, the eastern slope of the Andes Mountains and Llanos Plains, the eastern Amazon jungle, the western Amazon jungle, and the Pacific coast and offshore. Exploration has, however, been carried out in only eight of these basins.

The Colombian oil industry began in 1905 when concession agreements were signed between the Government of Colombia (GOC) and private companies. Early production came from wells in the middle Magdalena Valley and on the eastern slope of the Andes Mountains near the Venezuelan border. Exploration moved to other areas in the 1960's and Texaco discovered oil in the Putumayo Basin. (See Figure 1.1) The next significant discovery was in the 1970's by Texaco, of a gas field on the Guajira Peninsula in northeastern Colombia. In the 1980's, Occidental discovered the first major oil field (Caño Limon) in the Llanos Basin. With the discovery of the Cusiana Field by British Petroleum in 1988, Colombia doubled its oil reserves and as a result will become a net exporter in the future.

Ecopetrol, the Colombian National Oil Company, has 82 association contracts and 4 concession contracts with approximately 50 companies. (See Figure 1.2) These concessions cover 9 million hectares. In April 1994, Ecopetrol will offer a further 3.8 million hectares for bid through association contracts. There are presently also an additional 72 million hectares available on request for bid to any interested party.

The current production rates are 456,000 bbls/d (Ecopetrol 97,000 bbl/d) of oil and 380 mmcf/d (Ecopetrol 40 mmcf/d) of gas. The estimated reserves for Colombia are 3.36 billion bbls. of oil and 8.3 TCF. of gas.

**FIGURE 1.1
SEDIMENTARY BASINS OF COLOMBIA**



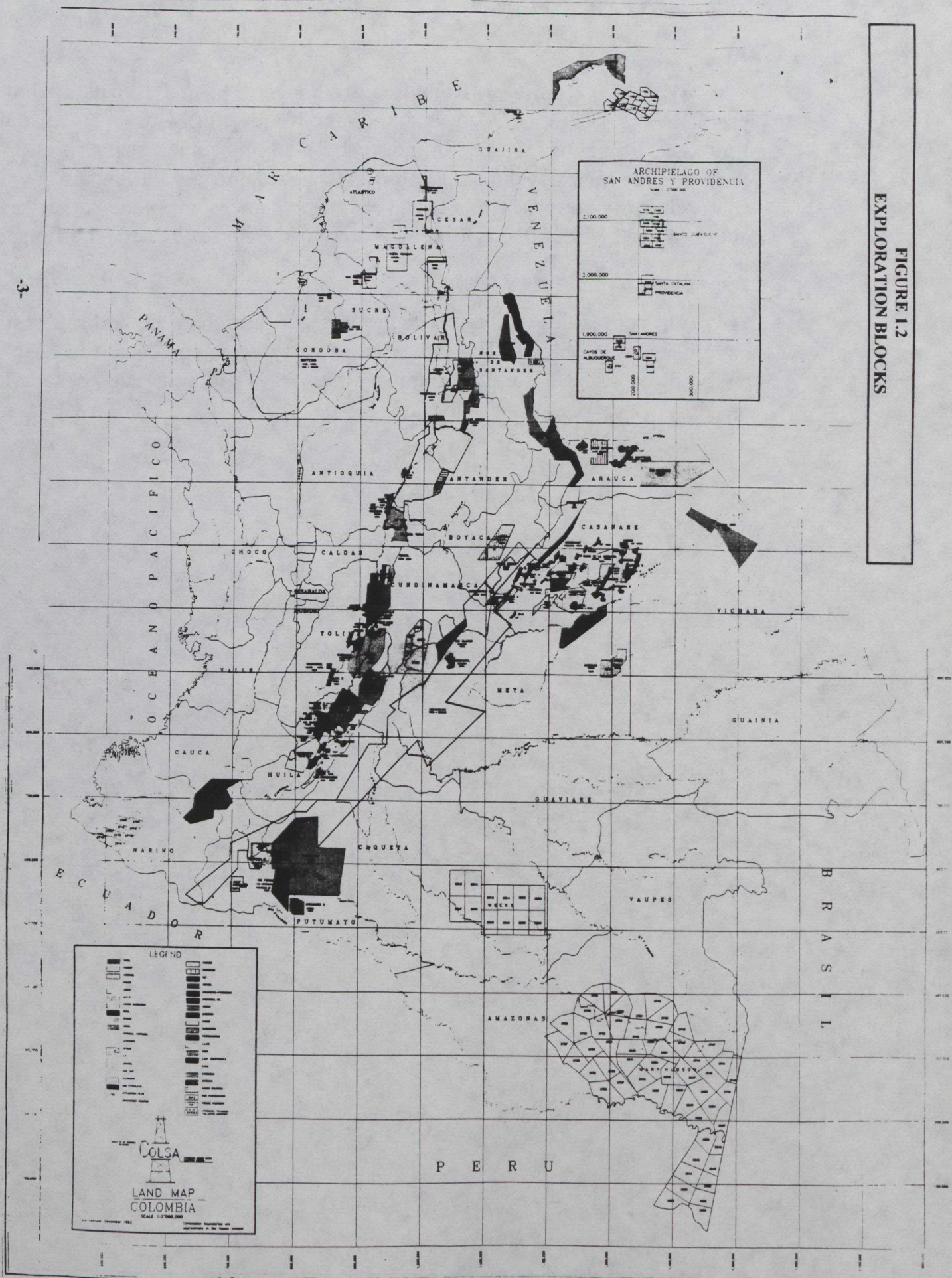


FIGURE 1.2
EXPLORATION BLOCKS

Although security in Colombia is a concern, business visits are not a problem. As a first step, it is important to register with the Canadian Embassy. Problems can be minimized by avoiding unnecessary risks. For example, company vehicles should not be identified by decals, avoid wandering the streets at night, travel long distances by plane rather than automobile. In Bogota, confine activities to the north, or safer portion, of the city.

Oil companies maintain very good security in the field and as a result have had few problems. The increased security does, however, add to their operating costs. No foreign company has left Colombia due to security reasons.

2.0 CUSIANA/CUPIAGUA FIELDS

2.1 OVERVIEW

The Cusiana field, located 125 miles (200 Km) northeast of Bogota, was discovered in 1988 by BP Exploration Company (Colombia) Ltd. and its partners, Total, and Triton. It was not until 1991, however, that the full extent of this discovery was determined. BP estimates the development cost for the first three years to be \$1 billion US which includes the costs of drilling approximately 20 development wells. By the end of 1995, production is expected to reach 150 MBPD.

This field produces from the Mirador Formation at approximately 16,000 feet (4,900 M). Current production data is as follows:

Production Buenos Aires - 1	10,000 BPD
Surface pressure	1,500 psi (10350 kPa)
Crude	35 to 40 API gravity
GOR	2000
Water	Very little
CO ₂	6 - 7%

To date, nine wells have been drilled and three are currently being drilled in Cusiana. Production from this field is ultimately expected to reach 300 to 340 MBPD. BP estimates the Cusiana reserves to be 1.5 billion barrels (Ecopetrol estimates 700 million barrels).

The Cupiagua Field, with currently estimated reserves of 500 million barrels of oil, was discovered by BP in 1993. At present, three additional wells are being drilled. Sufficient data should be available by the end of 1994 to estimate the reserves of Cupiagua Field.

BP and Ecopetrol have started drilling the Pauto-1 well in a new area, Piedemonte (Foothills), which is north of the Cupiagua Field. If the results are as good as Cusiana and Cupiagua, this could greatly increase requirements for pipelines and facilities in the area.

The development of the Cusiana and Cupiagua Fields accounted for more than two thirds of the 1993 total exploration spending in the country. Initially, costs averaged \$20 million US per well. The biggest contributing factor is the high cost of servicing deep, side tracked wells. On average, this is 60% of the total cost of each well. These costs, however, are being reduced as experience is gained in the area. At the current rate of drilling, the total servicing cost for all wells completed will be \$120 million US. in 1994.

2.2 CUSIANA PHASE I

The Cusiana Phase I development, which is currently underway, is expected to cost \$1.4 billion US. This involves the installation of production facilities and increasing the pipeline capacity to 150 thousand barrels per day (MBPD).

2.2.1 PIPELINE EXPANSION

The pipeline project (See Figure 2.1) will require the following facilities and lines to be constructed.

- A short section of 20 inch pipeline from Cusiana to Porvenir (150 km.) in the Llanos.
- The Central Llanos pipeline, from Porvenir to Vasconia (150 km.) will be looped where required and 3 additional pump stations installed to increase throughput from 100 MBPD to 200 MBPD.
- The Oleoducto de Colombia (The Colombian Pipeline) from Vasconia to the Caribbean Coast (600 km.) will be increased in capacity from 175 MBPD to 210 MBPD.
- An alternate plan is to run a pipeline from Cusiana to Caño Limon (250 km.) to join the Caño Limon/Covenas pipeline, should additional capacity be required in the short term

2.2.2 FACILITIES EXPANSION

Four facilities trains of 40 MBPD each will be installed over the remainder of this year and 1995. The first module is expected to start up in June of 1994, the second module by late 1994. Items required for the facilities expansion are as follows:

- Flow line.
- Facilities - gravity separators, water removal, gas compressors.
- Multi-well pads with facilities.
- Transportation/pipelines.
- Project management.
- Camp facilities.

2.2.3 PHASE I CONTRACTORS

The general contractor for Phase I is Distral, a Colombian, ASME certified construction/fabrication company, with main offices in Bogota. Distral has a lump sum turnkey (LSTK) contract with BP. Fluor Daniel has been subcontracted by Distral to assist in the design of the Phase I facilities, particularly the pipeline expansion. BP provides Distral with preliminary engineering requirements and a list of BP approved suppliers. Distral is responsible for all purchasing, most of which is done through their purchasing agents, Lancaster-Distral. To date, about 98% of Phase I purchasing has been completed. The majority of pipe has been purchased from Japan.

2.3 CUSIANA/CUPIAGUA PHASE II

Initial engineering studies are being carried out at this time by BP and its' partners. The following five companies have been requested to bid on the preliminary design work. The company winning the bid, however, will not be allowed to bid on the phase II contract for the General Contractor.

- Brown and Root - Houston, Texas
- John Brown - Houston, Texas
- Foster Wheeler - United Kingdom
- Fluor Daniel - Irving, California
- Parsons - Houston, Texas

The preliminary engineering plan is expected to be completed in 12 to 18 months. The phase II budget is estimated at \$1.5 billion US, of which \$400 million US is budgeted for facilities.

Phase II will require completely new facilities and a pipeline. As in phase I, this will be designed and built by a general contractor on a LSTK contract. This contract will go out to bid in early to mid 1995. The LSTK contractor will be responsible for all purchasing, with the exception of pipe which will be purchased directly by BP. As in Phase I, it is expected that a Colombian contractor will be awarded the LSTK contract. Due to the high costs and lack of sufficiently qualified Colombian engineering and design companies, a joint venture with a reputable firm capable of an undertaking a contract of this size, will be required. Financial backing will be a major consideration by BP for the bid evaluation by BP.

2.3.1 PIPELINES

The major items for this phase will be a new pipeline from Cusiana to the Caribbean coast and the corresponding offshore loading facilities. Eventually the pipeline system may be increased to 500 or 600 MBPD. Canadian companies have a very good opportunity to participate in this work. In the past, Trans Canada Pipelines and Interprovincial Pipelines have been invited by Ecopetrol to participate in several projects.

2.3.3 DRILLING

This phase will also see an increase in drilling activity. As any drilling rigs, in Colombia, capable of drilling below 15,000 feet are under long term contract, additional drilling rigs will be required.

2.3.4 FINANCING

Ecopetrol have gone to several sources for the financing of this project. In phase I, approximately \$40 million of the \$100 to \$200 million US. line of credit provided by the US Export Bank was spent. Although a line of credit is presently in place, Canada's Export Development Corporation is willing to lend a considerable amount of funds to Ecopetrol to support the sale of Canadian goods and services.

3.0 GAS MASSIFICATION

Currently Colombia's gas distribution system is limited to the northern coast. Here, Guajira gas is delivered to the coastal cities of Santa Marta, Barranquilla, Cartagena and some of the surrounding areas for domestic and industrial customers. In addition, small quantities of gas are delivered to Bogota from the Llanos area. Ecopetrol is responsible for gas delivery to the city gate where it is purchased by local distribution companies.

Colombia would like to increase gas consumption in by both domestic and industrial users. To achieve this goal a series of pipelines are planned. Presently, bids have been received for the construction of a gas pipeline which will run from Guajira to the Barrancabermeja refinery complex and serve both domestic and industrial customers. Tentatively, ENRON is the successful bidder for this project. This decision, however, has yet to be confirmed. Trans Canada Pipelines was a bidder for this pipeline. A second leg of this pipeline is planned from Barrancabermeja to Vasconia in the upper Magdalena area. From there, branch lines will be run to Bogota, Cali and Medellin. Canadian companies are expected to bid on the branch lines system. Other opportunities may be available in the sale of meters and other associated equipment at the user end of the system.

Due to lack of funds, these pipelines will probably be built with private funds under a build, operate, maintain and transfer type of contract (BOMT). Under this arrangement, Ecopetrol is charged for usage of the pipeline at an agreed to rate. Eventually, however, the pipelines will revert back to Ecopetrol.

4.0 REFINERY EXPANSION

Ecopetrol has tentative plans for a new 100 MBPD. refinery. No decision has, however, been made on a possible location for the new refinery. Ecopetrol may seek private financing and operate the refinery or may try to tender it under a BOMT. contract.

The present focus at Ecopetrol is on automating the major refineries in Barrancabermeja and Cartagena. At Barrancabermeja, \$30 million US. has been approved for the expansion and revamping of the viscbreaker and 2000 topping unit. A second proposal to increase this refinery's processing capacity by 50 MBPD. is awaiting budget approval. The Cartagena refinery has approval to upgrade the cracking unit, replace the topping furnaces and increase the topping capacity. The budget for this work is \$40 million US. An additional \$6.8 million US. has been approved to change out and upgrade the refinery fire system at the Cartagena refinery.

5.0 COMPANY ACTIVITIES

5.1 ECOPETROL

Ecopetrol has the following additional funds budgeted for 1994:

- \$50 million US. for seismic surveys and exploration drilling.
- \$40 million US. for 3D seismic surveys and development drilling.
- \$60 million US. for development of new fields, if their exploration wells are successful.

Ecopetrol will drill eight exploration and ten development wells in 1994 in the Putumayo, Llanos and N. Magdalena Basins. Six drilling rigs are needed to carry out this work. Although these rigs are available in Colombia, Ecopetrol indicates that most are in poor shape. As a result, Ecopetrol would welcome interested drilling contractors with rigs capable of drilling to 10,000 - 12,000 feet.

5.1.1 Villavicencio Well

Ecopetrol will put up for bid by mid 1994 a 20,000 foot, foothills well near Villavicencio. As all available rigs, which can drill to this depth, are under contract to BP., Ecopetrol are looking for a top drive rig capable of drilling to this depth. This work could open the door for additional contracts with BP or Ecopetrol in the active Llanos area. As part of this project, Ecopetrol is looking to immediately contract a very capable consultant or consulting firm to bid on the planning and field supervision of this project. Consultants would be responsible for well planning, rig specifications and selection and the drilling program. Ecopetrol indicate they would consider a bonus clause in the contract for completing the well on schedule and at or under cost.

5.1.2 Helicopter Rig

There is a proposal to drill a 2000 foot well in the jungle area of Putumayo. Ecopetrol is looking for a 2 inch, skid mounted (heli-transportable) coiled tubing unit for this work. Presently in Colombia, there are three coiled tubing units available. BJ has two 1 1/4" units and Halliburton has one 1 1/2" unit (under contract to BP). Ecopetrol have not been unable to obtain much information on Canadian coiled tubing companies capable of doing this work.

5.1.3 Horizontal Wells

In 1995, Ecopetrol plans to drill two, 10,000 foot horizontal wells in a developed field. Their preference would be a turnkey contract for this work. There is extensive seismic data for the field and drilling data from 50 wells. Ecopetrol has had preliminary discussions with Morgan Petroleum about this project.

5.2 OCCIDENTAL

Occidental have budgeted \$16 million US. in 1994 to drill 16 development wells in the Caño Limon area. An additional \$6 to \$8 million US. is budgeted for well workovers. They are also looking at two new areas, Laguna in the province of Boyaca and San Morre in the foothills of the Llanos, for possible exploration wells.

Occidental does the majority of their engineering in - house. For well services, Occidental only uses companies who have operations in Colombia and are registered with them.

5.3 LASMO

Lasmo are in the early stages of designing the production facilities for the Purificacion Field. This plant will handle 10,000 bbls/d and has a budget of \$10 million US .

5.4 ARGOSY

For 1994, Argosy has a \$60 million US. budget to drill seven, 8,000 to 10,000 foot wells in the Putumayo area and to construct an extension of their pipeline to join Ecopetrol's pipeline to the Pacific coast.

6.0 ENVIRONMENT

In Colombia, environmental issues are starting to be taken more seriously. Many of the foreign operators, responsible for the introducing environmental standards into the Colombian oil industry, are now under pressure to further improve their environmental operating procedures.

The Colombian Government has just recently formed the Ministry of the Environment and appointed Manuel Rodriguez Becerra to head the Ministry. The Minister was previously the manager of the National Institute of Renewable Natural Resources (INDERENA).

At present, on environmental issues, oil companies work with INDERENA, a division of the Colombian Department of Agriculture. Though many of the responsibilities of INDERENA will be taken over by the new ministry, they will remain a very active group. The Canadian Embassy in Bogota is considering providing funds to INDERENA for their monitoring programs and training on how to work with oil companies.

Very shortly Ecopetrol is expected to publish their guidelines for carrying out Environmental Audits of all Ecopetrol facilities. As Ecopetrol is a partner in nearly all petroleum activities, these audits will cover the Colombian oil industry from production, pipelines, refining, shipping to commercial distribution. As Ecopetrol audits other facilities and the GOC pushes for audits of other industries, there are certain to be additional environmental contract opportunities.

Canadian companies, through a technical transfer agreement between Ecopetrol, ARPEL and PETRO-CANADA/CIDA, have been very active in conducting environmental training for Ecopetrol. The reputation gained from this work will help Canadian companies to participate in future environmental contracts.

To participate, Canadian Companies must be registered with Ecopetrol. Companies might also want to consider a joint venture with a Colombian firm who can assist in working with the Spanish language and by supplying local contacts. Solving both of these problems is necessary to successfully work in Colombia. There are currently several very reputable environmental companies in Colombia, who would welcome the opportunity to work with well established international firms to strengthen their position in the Colombian market.

7.0 REGISTERING YOUR COMPANY

7.1 BP Exploration Company (Colombia) Ltd.

To work with BP and its' partners on the Cusiana/Cupiagua projects, companies must be registered with BP. as only registered companies will be considered for this work. The registration form is included as Appendix C and can be completed in English. In addition to submitting the form, companies must be able to prove their capability to perform the required work. Canadian companies with a good track record with BP Canada can use this as a reference. After submitting an application, it is important companies follow-up on a regular basis to ensure they are being considered for any future work. Although companies are not obligated to register with Ecopetrol, it is recommended that they do so. As Ecopetrol is a major partner, it has the right to question company capabilities and remove or add companies to the approved BP supplier's list. The following are the rules for partner approvals on all bids:

- Bids less than \$40,000 do not require partner approval.
- Bids over \$40,000 require Ecopetrol approval.
- Bids over \$250,000 require approval of Ecopetrol. BP and its' partners.

7.2 Ecopetrol

The procedure for registering with Ecopetrol is more complicated and can take up to six months to be approved. The Ecopetrol registration forms included as Appendix D are only for reference. To register, a company must purchase these documents at a cost of \$300.00 US for contractors, consultants and service companies. Supply company registration forms, however, cost \$110.00 US. The receipt, as proof of purchase, must be attached to your application. As part of the registration process, a certificate of incorporation must be legalized by the Colombian Consulate in Canada.

Once registered, a company must establish an office in Colombia. This office may be your office or the office of a legal representative. Supply companies working through a Colombian representative need not have an office if representative is legally registered.

A certificate of experience is also required. This is normally filled out by customers for whom the company has previously worked. The certificate must give a description of objectives of the contract and its execution, the value of the contract, the date of completion, and any overall performance comments. If a company is unable to obtain this information, alternatives may be used, with prior approval from Ecopetrol.

Any software and hardware used as part of your services requires proof of purchase and authorization for its use.

Large contracts with Ecopetrol are normally published in local, as well as international papers. Information is also usually available from the Canadian Embassy - Commercial Office in Bogota or Provincial Trade Offices in Canada. The best way, however, of accessing Ecopetrol bid packages is through a local Colombian office which is in contact with Ecopetrol and the other operating companies.

Too much emphasis can not be placed on local contacts. It is important to have as much local presence as possible. Those companies presently working in Colombia have an obvious advantage over those trying to penetrate the market. In Canada, a service company can not expect to obtain major contracts on one customer visit a year. A good example of a Canadian Company which has penetrated the Colombian market is Kenonic Controls of Calgary. Kenonic successfully bid an initial engineering study for a SCADA system for Ecopetrol. As a result of their presence in Colombia, they obtained a contract with BP for work on the SCADA system for the pipeline expansion project.

7.3 OCCIDENTAL DE COLOMBIA INC.

To register with Occidental, companies need to send a letter of interest and supporting corporate documentation and detailed information on services and/or products. Occidental, however, will only work with companies which have an office in Colombia.

APPENDIX A

LIST OF COLOMBIAN CONTACTS

APPENDIX A COLOMBIAN CONTACTS LIST

COMPANY	CONTACT PERSON	POSITION	ADDRESS	TELEPHONE NUMBER	FAX NUMBER
AMERICAN INTERNATIONAL PETROLEUM CORPORATION	LORRIE OLIVIER	GENERAL MANAGER	CARRERA 15 N 95-51	(57-1) 610-1570 OR 610-2236	(57-1) 610-2190
ARGOSY ENERGY INTERNATIONAL	SANTIAGO GONZALES	VICE PRESIDENT OF OPERATIONS	CARRERA 7 N 71-52 TORRE A, PISO 12 PO BOX APARTADO AEREO 29243	(57-1) 312-0714 TO 312-0718 312-0720 TO 312-0721	(57-1) 312-9372
BP EXPLORATION COMPANY (COLOMBIA) LTD.	PETER DRISCOLL	GENERAL MANAGER	CARRERA 9A N 99-02 PO BOX APARTADO AEREO 59824	(57-1) 618-2777 OR 222-8855	(57-1) 611-1127
BP	DON WILLEY	PURCHASING MANAGER	SAME	(57-1) 618-2777 OR 222-8855	(57-1) 618-2318
BP	TOM COMBS	MANAGER PROJECT AND PRODUCTION PROCUREMENT	SAME	(57-1) 618-2777 OR 222-8855	(57-1) 618-2318
CHEVRON PETROLEUM COMPANY OF COLOMBIA	GIRALDO PEREZ	EXPLORATION MANAGER	CALLE 78 N. 9-57 PISO 12 PO BOX APARTADO AEREO 3631	(57-1) 211-1600	(57-1) 255-9772
ECOPETROL	SEE APPENDIX B		CARRERA 13 N. 36-24 PO BOX APARTADO AEREO 5938 OR 6813	(57-1) 285-6400 OR 288-5760	(57-1) 288-5110
ESSO COLOMBIANA LIMITED	CARLOS ARCE	EXPLORATION MANAGER	CARRERA 7 N. 36-45 PO BOX APARTADO AEREO 3533 OR 3602	(57-1) 285-2080	(57-1) 285-4682
EUROCAN	IAN GOLLOP	VICE PRESIDENT	CALLE 78 N. 9-57 PISO 10 PO BOX APARTADO AEREO 088728	(57-1) 210-1701 OR 210-1771	(57-1) 211-8859
HOCAL MAGDALENA OIL AND GAS COMPANY (AMOCO)	PETER NAGTEGAOL	GENERAL MANAGER	CARRERA 9N. 69-70 PO BOX APARTADO AEREO 3715	(57-1) 235-1673 OR 255-7616 211-9183	(57-1) 211-9350
LASMO OIL (COLOMBIA) LIMITED	GORDON HADLEY IQBAL ASSAAT	ENGINEERING MANAGER SENIOR PRODUCTION ENGINEER	CALLE 72 N. 8-24 PISO 8 PO BOX APARTADO AEREO 89195	(57-1) 217-1899	(57-1) 211-6303
OCCIDENTAL DE COLOMBIA INC	HIPARCO ALEJANDRO ARIAS LUIS ENRIQUE REMOLINA	PRODUCTION ENGINEER EQUIPMENT PURCHASING	CALLE 77A N. 11-32 PO BOX APARTADO AEREO 092171	(57-1) 235-2200 OR 217-1111	(57-1) 211-6820 OR 212-8100

APPENDIX A COLOMBIAN CONTACTS LIST

COMPANY	CONTACT PERSON	POSITION	ADDRESS	TELEPHONE NUMBER	FAX NUMBER
PETROLEOS DEL NORTE S.A.	ALFONSO DE MARES	GENERAL MANAGER	CARRERA 10 N. 28-49 TORRE A OFICINA 2203 PO BOX APARTADO AEREO 241964	(57-1) 284-2288 OR 286-2885	(57-1) 281-0692
REPSOL EXPLORATION S.A.	JUAN GARCIA MALLO	GENERAL MANAGER	TRANSVERSAL 21 N. 100-20 PISO 8	(57-1) 257-2300 OR 257-1911	(57-1) 218-4092 OR 218-2343
TEXAS PETROLEUM COMPANY - TEXACO	ORLANDO GONZALES	GENERAL MANAGER	CALLE 100 N. 7A-81 PO BOX APARTADO AEREO 44848	(57-1) 610-7366, 257-8400, 236-0640	(57-1) 218-9568 OR 218-1947
AN-SON DRILLING COMPANY OF COLOMBIA S.A. 7 DRILLING RIGS 5 SERVICE RIGS	FRANK WRIGHT	PRESIDENT	DIAGONAL 41 N.96-09 PO BOX APARTADO AEREO 32316	(57-1) 267-2400, 298-0546, 267-4276	(57-1) 267-4042 OR 281-3725
GEOPOZOS & CIA S.A. 1 DRILLING RIG	LUIS CLAVIJO PERDOMO	GENERAL MANAGER	CARRERA 14 N. 87-39 OFICINA 301	(57-1) 616-4472 OR 256-6539	(57-1) 616-0907
HELMERICH & PAYNE INC 9 DRILLING RIGS	STEVE SPARKS	GENERAL MANAGER	TRANSVERSAL 19A N.103-19 PO BOX APARTADO AEREO 12041	(57-1) 218-9612	(57-1) 610-3996
INGERSER DE COLOMBIA S.A. 14 DRILLING RIGS	JULIO CESAR SALAZAR	GENERAL MANAGER	CARRERA 7A N.24-89 TORRE COLPATRIA PISO 21 PO BOX APARTADO AEREO 040701	(57-1) 281-2711	(57-1) 284-1015
MARLIN COLOMBIA DRILLING CO. INC 4 DRILLING RIGS 3 SERVICE RIGS	ALIRIO RUEDAS	GENERAL MANAGER	CARRERA 7 N.73-47 PISO 2	(57-1) 210-0100	(57-1) 212-1250
PARKER DRILLING COMPANY INTERNATIONAL LIMITED 6 DRILLING RIGS	JAMES STAFFORD	GENERAL MANAGER	CARRERA 62 N.16-92 PO BOX APARTADO AEREO 90027	(57-1) 261-1008 OR 261-2725	(57-1) 290-1558
PERFORACIONES EL DORADO S.A. 5 DRILLING RIGS	BERNARDO PEREIRA	GENERAL MANAGER	CARRERA 9 N.74-08 OFICINA 12-01 PO BOX APARTADO AEREO 75234	(57-1) 212-4600, 212-4855, 212-4332	(57-1) 211-1021 OR 212-7006
PETROLEOS COLOMBIANOS LIMITADA (BAHAMAS) 2 DRILLING RIGS	ANTONIO MORALES	GENERAL MANAGER	CARRERA 7 N.31-10 PISO 9 PO BOX APARTADO AEREO 57991	(57-1) 287-2588, 287-1946 287-4654, 287-0343	(57-1) 285-4483 OR 285-8205

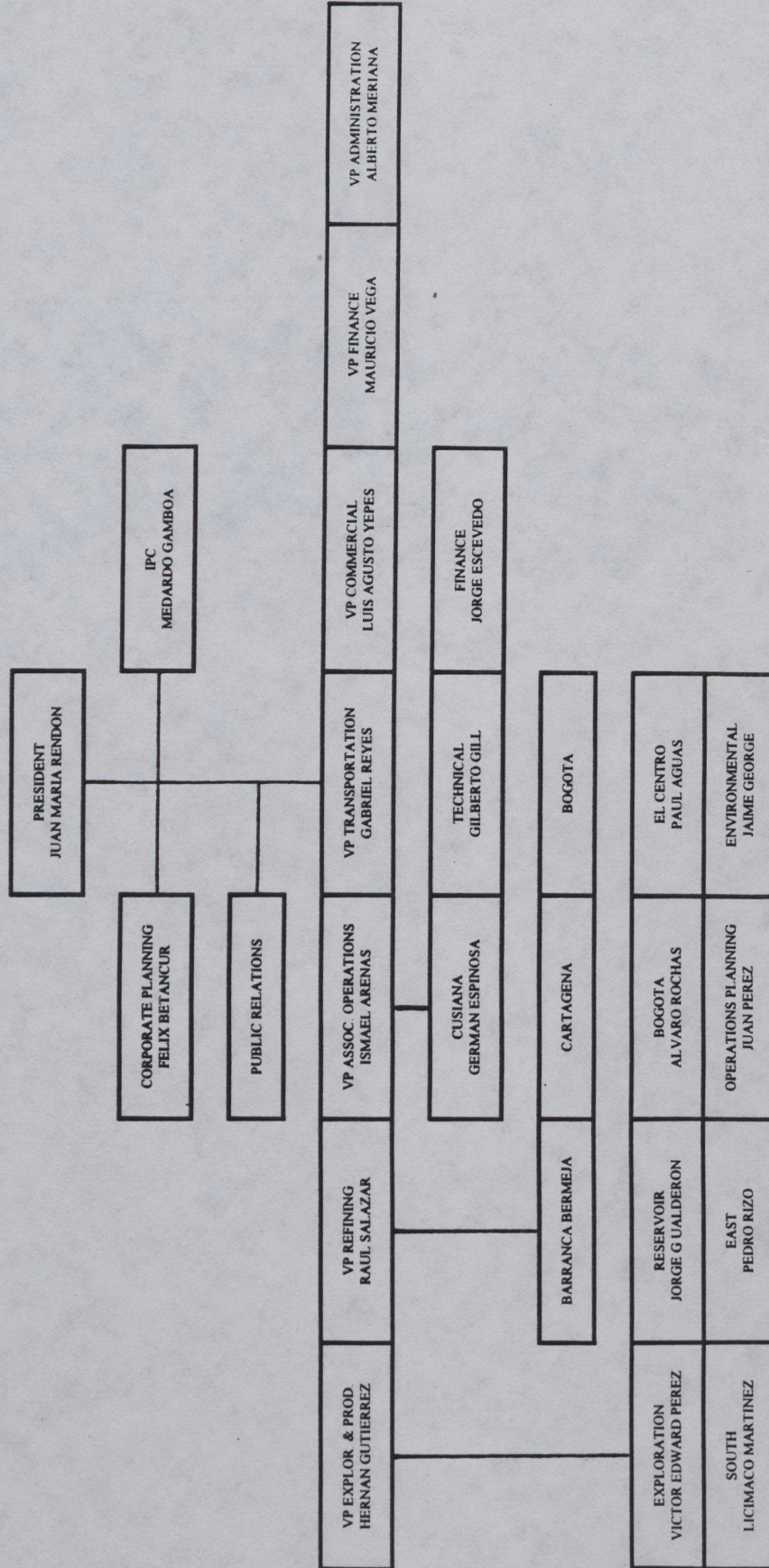
APPENDIX A COLOMBIAN CONTACTS LIST

COMPANY	CONTACT PERSON	POSITION	ADDRESS	TELEPHONE NUMBER	FAX NUMBER
CANADIAN EMBASSY	ZEN BURIANYK CARLOS EDUARDO RIVERA	COMMERCIAL OFFICER COMMERCIAL ADVISOR	CALLE 76 N 11-52 PO BOX APARTADO AEREO 53531	(57-1) 217-5555	(57-1) 310-4509
DISTRAL	ALGIS DIDZIULIS BERNARDO LEE OCTAVIO PASTRANO	PRESIDENT MANAGER CUSIANA PROJECT VP COMMERCIAL COOPERATION	CARRERA 7 N 83-51	(57-1) 236-7319 OR 616-2689	(57-1) 236-6173
LANCASTER-DISTRAL	DONATAS SILIUNAS	PURCHASING	1125 NE 7th AVENUE DANIA, FLORIDA 33004	(305) 920-8100	(305) 922-8686

APPENDIX B

ECOPETROL ORGANIZATION CHART

**APPENDIX B
ECOPEPETROL ORGANIZATION CHART**



APPENDIX C

BP REGISTRATION FORM



BP EXPLORATION

CONTRACTOR/SUPPLIER INFORMATION REQUEST

Name of the Company _____

Date _____

MAIL REPLY : BP EXPLORATION COMPANY (COLOMBIA) LTD.
Cra. 9a A No. 99-02 5th. Floor
Santafé de Bogotá, D.C.- Colombia ATTN: Materials Management

We request that you answer the following questions in order that we may become more acquainted with you, and aid us in establishing and maintaining data concerning your company, the products and services you wish to furnish, and the individuals whom we should contact. In answering these series of questions, please be assured this information will be maintained in the strictest confidence and will be used only by BP EXPLORATION.

Name of Company (Full Legal Name) _____

Street Address _____

City _____ Telephone _____

Mailing Address _____

City _____ Telephone _____

Address of Plants _____

General Information Union Non-Union Warehousing Manufacturer's Fabricator/
Approx.: Inventory Value _____

Nature of Business Manufacturer Distributor Supplier Rep. Assembly

Type of Business Corporation Partnership Proprietorship

In Present Business Since _____ Under Present Ownership Since _____

Number of Employees (All Facilities) _____

Parent Company (Full Legal Name) _____

Subsidiaries/Affiliates (Attach List if Necessary) _____

Type of Products Offered

List Manufacturers for whom you are licensed Distributor: 1) _____
2) _____
3) _____
4) _____
5) _____

Large Business Small Business
(Over 500 Employees)

Financial

Banking Reference _____

Annual Sales Volume (Last 3 Years) 1) 1991 US\$ _____ 2) 1990 US\$ _____ 3) 1989 US\$ _____

Personnel

Name of Principal Owners/
and Percentage Owned

President _____

Vice President/General Manager _____

Controller _____

Key Personnel and Contacts

_____ Title _____ Telf: _____

_____ Title _____ Telf: _____

_____ Title _____ Telf: _____

Attach a list of Sales offices and Any Brochures Which Further Describe your Company's Activities and Capabilities. Subcontracted Services (List type of Work Normally Subcontracted to Others).

The Products Manufactured, Fabricated or Assembled by your Company (Attach List if Necessary)

References: List Several Major/Orders/Jobs/Projects In Process or Completed During the Last Year and Names of Customers Who Maybe Contacted for References:

Customers	Description	Approx. Order Value	Date Completed
1) _____	_____	_____	_____
2) _____	_____	_____	_____
3) _____	_____	_____	_____
4) _____	_____	_____	_____

Equipment List Attached Yes No
 Published Price List Attached Yes No

Acknowledgement: The Undersigned Hereby Submits the Above Information as Being True and Accurate to the Best of His Knowledge.

Completed by _____ Title _____

Signature _____ Date _____

NOTE: Please fill-out this format in English and Include a Chamber of Commerce Certificate

APPENDIX D

ECOPETROL REGISTRATION FORM

IMPORTANTE

La Empresa Colombiana de Petróleos agradece su interés en inscribirse en el Registro Nacional de Proponentes y le informa que el diligenciamiento del formulario de inscripción requiere un excelente nivel de conocimiento del objeto, trayectoria, experiencia y recurso humano de su Empresa. Para ECOPETROL es deseable que la persona asignada por usted a esta labor y a su presentación ante el Grupo de Registro Nacional de Proponentes, esté en capacidad de recibir y suministrar información técnica y empresarial relacionada con todos los aspectos de la inscripción, renovación ó actualización en su Registro.

Fotocopie su formulario y diligéncielo primero en borrador. Lea detenidamente la cartilla instructiva antes de llenar cada formato.

No anexe documentos que no se solicitan (hojas de vida, referencias comerciales y bancarias, etc.).

Favor tener en cuenta la ubicación de los documentos dentro de la carpeta. La modificación del orden de los documentos ocasiona demoras en la tramitación de su solicitud.

El formulario debe diligenciarse en las partes que apliquen de acuerdo con su Área, excepto en las columnas "PUNTOS" que son espacios para uso exclusivo de Ecopetrol. No modifique el orden de los formatos en esta carpeta.

UBICACION DE LOS ANEXOS

Inmediatamente después de los nueve (9) formatos diligenciados que componen el formulario de inscripción, deberá disponer los anexos en el siguiente orden. Repase la cartilla instructiva para verificar los documentos aplicables al Área de clasificación (Constructor, Consultor ó Suministrador de Servicio) seleccionada:

- 1. Fotocopia autenticada de la cédula de ciudadanía ó de extranjería colombiana, para personas naturales.*
- 2. Registro Mercantil expedido por la Cámara de Comercio, para personas naturales cuando no estén amparadas por la matrícula profesional.*
- 3. Certificado de Existencia y Representación Legal expedido por el organismo competente (Cámara de Comercio, Superintendencia Bancaria, Ministerio de Justicia, Gobernaciones, etc.), para personas jurídicas colombianas de Derecho Privado. Tal certificación deberá ser expedida con antelación no mayor de 45 días calendario, con respecto a la fecha de presentación del formulario.*

Las personas jurídicas extranjeras -sin sucursal en Colombia- deberán acreditar su existencia y representación legal, conforme a la legislación de su país de origen.

4. *Certificación de la Cámara de Comercio que respalde la existencia de sucursales.*
5. *Fotocopia de la relación de personal con contrato a término indefinido presentada al Instituto de los Seguros Sociales (ISS), además la fotocopia de la tarjeta o matrícula profesional.*
6. *Fotocopia de las certificaciones o contratos que respalden las experiencias registradas en el formato RNP-06.*
7. *Documentos que acrediten la propiedad del equipo tecnológico.*
8. *Documentos que acrediten la propiedad del soporte tecnológico.*
9. *Documentos que acrediten la propiedad o disponibilidad (en caso de alquiler) del equipo mayor y la propiedad del equipo mediano y menor.*
10. *Balance General y Estado de Pérdidas y Ganancias de los dos últimos períodos gravables, firmados por el Representante Legal y el Contador.*
11. *Certificación de vigencia de la matrícula profesional del Contador expedida por la Junta Central de Contadores.*
12. *Original o fotocopia del recibo de pago de Caja de Ecopetrol, por concepto de compra del formulario.*
13. *Dependiendo de la Actividad, anexar Resolución o permiso del Ministerio respectivo; por ejemplo, los transportadores deberán anexar el permiso del INTRA.*

EMPRESA COLOMBIANA DE PETROLEOS "ECOPETROL"

Registro Nacional de Proponentes

Calle 37 No. 8-43, Edificio Colgás, Piso 6. Santafé de Bogotá D.C.

Teléfonos Directos: 2327553 y 2328361. Conmutador: 2856400 Extensiones 3194 y 3236.



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS

FORMULARIO DE INSCRIPCION Y RENOVACION EN EL REGISTRO NACIONAL
DE PROPONENTES - INHABILIDADES E INCOMPATIBILIDADES

Yo, _____ declaro en mi nombre y en el de la
Sociedad _____ de la cual soy representante legal,
que no estamos incurso en las causales de inhabilidades y/o incompatibilidades consagradas en la
ley, y para efectos de inscripción en el Registro Nacional de Proponentes de ECOPETROL, de las
que trata el Manual de Contratación de ECOPETROL, que a continuación se transcribe:

1. Quienes por hechos de que fueron responsables dieron lugar a la declaratoria de caducidad, por parte de cualquier Entidad Pública.
2. Quienes con anterioridad hubieren celebrado contratos estando inhabilitados para ello.
3. Quienes hayan sido condenados por delitos contra la administración pública o el orden económico o social.
4. Quienes hayan sido sancionados con interdicción de derecho y funciones públicas; esta inhabilidad se extenderá por el mismo término de dicha sanción.
5. Las sociedades de responsabilidad limitada en las cuales sean socios mayoristas o ejerzan cargos de dirección o manejo las personas naturales a que se refieren los numerales 1, 2, 3 y 4.
6. Quienes no garanticen la moralidad a juicio de la Honorable Junta Directiva y el Presidente de la Empresa, en votación secreta y unánime.
7. Quienes hayan suministrado informaciones inexactas en anteriores solicitudes de inscripción.
8. El cónyuge, compañero o compañera permanente y los parientes de los funcionarios y de los miembros de la Junta Directiva de la Empresa.
9. Las Sociedades en que el cónyuge y los parientes de los funcionarios y de los miembros de la Junta Directiva de la Empresa tengan separada o conjuntamente más del cincuenta por ciento (50 %) del capital social o desempeñen cargos de dirección.
10. Las sociedades en que sean socios o tengan cargos de dirección o manejo los funcionarios o miembros de la Junta Directiva de la Empresa.
11. Los miembros de la Junta Directiva de ECOPETROL y los trabajadores de ECOPETROL.
12. Los exfuncionarios de la Empresa o exmiembros de la Junta Directiva por el término de un (1) año, contado a partir de la fecha de su retiro.

Para los efectos anteriores, son parientes quienes se hallen dentro del cuarto grado de consanguinidad, segundo de afinidad o primero civil.

Las disposiciones sobre inhabilidades e incompatibilidades acabadas de citar, no se aplican en el caso de las Sociedades Anónimas.

Conocidas todas las inhabilidades y/o incompatibilidades citadas en este documento, firmo para constancia.

NOMBRE FIRMA DEL REPRESENTANTE LEGAL Y SELLO



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
DATOS GENERALES

PARA FIRMAS NACIONALES

NIT. O C.C. : _____

FECHA:

AA

MM

DD

INSCRIPCION

RENOVACION

APELLIDOS Y NOMBRES
O RAZON SOCIAL : _____

SIGLA : _____

DIRECCION

(SEDE PRINCIPAL) : _____

CIUDAD : _____ DEPTO : _____ PAIS : _____

APARTADO AEREO : _____ TELEX : _____ FAX : _____

TELEFONO(S) : _____

NOMBRE DEL REPRESENTANTE LEGAL : _____

INFORMACION SOBRE LAS SUCURSALES :

DIRECCION : _____

CIUDAD : _____ DEPTO : _____ PAIS : _____

APARTADO AEREO : _____ TELEX : _____ FAX : _____

TELEFONO(S) : _____

DIRECCION : _____

CIUDAD : _____ DEPTO : _____ PAIS : _____

APARTADO AEREO : _____ TELEX : _____ FAX : _____

TELEFONO(S) : _____

DIRECCION : _____

CIUDAD : _____ DEPTO : _____ PAIS : _____

APARTADO AEREO : _____ TELEX : _____ FAX : _____

TELEFONO(S) : _____



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
DATOS JURIDICOS

RAZON SOCIAL : _____

CLASE DE SOCIEDAD : _____

FECHA CONSTITUCION FECHA VENCIMIENTO
 _____ _____ _____
 AA MM DD AA MM DD

NOMBRE DEL REPRESENTANTE LEGAL : _____ C.C. _____

SUPLENTES : _____ C.C. _____

_____ C.C. _____

_____ C.C. _____

_____ C.C. _____

NOMBRE DE LOS SOCIOS	No. DE IDENTIFICACION	CAPITAL POR SOCIO
_____	_____	\$ _____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

TOTAL CAPITAL SOCIAL DE LA FIRMA \$ _____

FECHA DE EXPEDICION DEL CERTIFICADO DE EXISTENCIA Y REPRESENTACION LEGAL

_____ _____ _____
 AA MM DD



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS

CLASIFICACION: DE AREAS / ACTIVIDADES / GRUPOS / ESPECIALIDADES

CERTIFICACION No.	ENTIDAD QUE CERTIFICA	AREA	ACTIVIDAD	GRUPO	ESPECIALIDAD (1)

NOTAS: (1) SOLAMENTE PARA FIRMAS CONSULTORAS Y SUMINISTRADORES DE SERVICIOS.

- UTILICE TODAS LAS HOJAS QUE CONSIDERE NECESARIAS PARA REGISTRAR LAS AREAS, ACTIVIDADES, GRUPOS Y ESPECIALIDADES, SELECCIONADAS POR USTEDES.

- PARA CADA AREA / ACTIVIDAD / GRUPO / ESPECIALIDAD UTILICE LOS CODIGOS QUE APARECEN EN LA CARTILLA.



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
CAPACIDAD TECNICA - HOJA DE VIDA

EXPERIENCIA DEL PERSONAL PROFESIONAL

C.C. No.	APELLIDOS Y NOMBRES :			
PROFESION :	No. TARJETA PROFESIONAL :	FECHA DE GRADO :		
	ENTIDAD QUE EXPIDE :	AA	MM	DD

EXPERIENCIA PROFESIONAL (DESCRIPCION)	TIEMPO AÑOS	AREA	ACTIVIDAD	GRUPO	ESPECIALIDAD (I)	PUNTOS

NOTA: UTILICE UNA HOJA POR CADA PROFESIONAL O TECNICO QUE DESEA RELACIONAR.



**MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
CAPACIDAD OPERATIVA**

No. DE CERTIFICACION:

1. CERTIFICACION DE EXPERIENCIA CONTRATOS ULTIMOS 48 MESES

LUGAR:	FECHA: <input type="text"/> <input type="text"/> <input type="text"/> AA MM DD
NOMBRE DE LA ENTIDAD QUE CERTIFICA:	NIT. O C.C.

CERTIFICAMOS QUE LA ENTIDAD ENSEGUIDA MENCIONADA HA CELEBRADO CON NUESTRA EMPRESA EL CONTRATO QUE DETALLAMOS A CONTINUACION:

NOMBRE DE LA PERSONA NATURAL O RAZON SOCIAL COMPLETA:	NIT. O C.C.
---	-------------

CONTRATO No.	PARTICIPACION EN CONSORCIO %	PORCENTAJE DE FACTURACION PAGADA %	PORCENTAJE DE AVANCE DE OBRA %
--------------	------------------------------	------------------------------------	--------------------------------

OBJETO Y ALCANCE DEL CONTRATO: _____

POR UN VALOR TOTAL DE: \$ PUNTOS:

EN EL PERIODO DE: A:
AA MM DD AA MM DD

2. CERTIFICACION DE CUMPLIMIENTO CONTRATOS CONCLUIDOS ULTIMOS 48 MESES.

CUMPLIMIENTO: EXCELENTE: NORMAL: REGULAR: PUNTOS:

FIRMA: _____ CARGO: _____

NOMBRE, C.C. Y SELLO: _____

REGISTRO (PARA FUNCIONARIOS DE ECOPETROL): _____



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
RELACION DE EQUIPO - CAPACIDAD OPERATIVA

EQUIPO TECNOLOGICO

DESCRIPCION DEL EQUIPO:	CANT.	PUNTOS
TOTALES		

SOPORTE TECNOLOGICO

PROGRAMAS O SOFTWARE TECNICO INCLUYENDO VERSION:	CANT.	PUNTOS
TOTALES		



MINISTERIO DE MINAS Y ENERGIA
 EMPRESA COLOMBIANA DE PETROLEOS

RELACION DE EQUIPO - CAPACIDAD OPERATIVA

EQUIPO MAYOR

DESCRIPCION DEL EQUIPO :	CANT.	PROPIO	ALQUILER	PUNTOS
TOTALES				

EQUIPO MEDIANO

DESCRIPCION DEL EQUIPO	CANT.	PUNTOS
TOTALES		

EQUIPO MENOR

DESCRIPCION DEL EQUIPO	CANT.	PUNTOS
TOTALES		

NOTA : ESTE FORMATO NO APLICA PARA CONSULTORES.



MINISTERIO DE MINAS Y ENERGIA
EMPRESA COLOMBIANA DE PETROLEOS
CAPACIDAD FINANCIERA

DATOS FINANCIEROS A :
(ULTIMO PERIODO GRAVABLE)

AA MM DD

K - RESPALDO OPERATIVO SOBRE ACTIVOS TOTALES :

ACTIVOS TOTALES : \$ _____

PUNTOS

L - RESPALDO OPERATIVO SOBRE PATRIMONIO :

PATRIMONIO \$ _____

M - CAPITAL DE TRABAJO :

(ACTIVOS CORRIENTES - PASIVOS CORRIENTES)

(\$ _____) - (\$ _____) : \$ _____

N - RELACION DE RENTABILIDAD POR INGRESOS TOTALES :

(UTILIDAD NETA / INGRESOS TOTALES)

(\$ _____) / (\$ _____) : _____

N̄ - RELACION DE RENTABILIDAD POR PATRIMONIO :

(UTILIDAD NETA / PATRIMONIO)

(\$ _____) / (\$ _____) : _____

O - RELACION DE ENDEUDAMIENTO :

(PASIVOS TOTALES / ACTIVOS TOTALES)

(\$ _____) / (\$ _____) : _____

CERTIFICO QUE LA INFORMACION SUMINISTRADA EN LOS FORMATOS QUE FORMAN PARTE DE ESTE FORMULARIO,
ES VERAZ Y CORRECTA Y AUTORIZO A ECOPETROL PARA VERIFICARLA.

NOMBRE, FIRMA DEL REPRESENTANTE LEGAL Y SELLO

LIBRARY E A/BIBLIOTHEQUE A E



3 5036 20009430 1

CA1 EA911 94C55 ENG DOCS
Archer, Jack.
Columbian oil and gas sector
43275318