GOVERNMENT OF THE REPUBLIC OF TRINIDAD AND TOBAGO

MINISTRY OF ENERGY AND ENERGY INDUSTRIES

ANNUAL ADMINISTRATIVE REPORT
1992

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Port of Spain

TABLE OF CONTENTS

LIST OF TABLES

FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

b/d	-	barrels per day
bcf	-	billion cubic feet
bbl	-	barrel, barrels
bcpd	-	barrels of condensate per day
bopd	-	barrels of oil per day
bpcd	-	barrels per calendar day
bwpd	-	barrels of water per day
MMcfd	-	million cubic feet per day

OVERVIEW OF DEVELOPMENTS IN THE PETROLEUM INDUSTRY DURING 1992

Against a backdrop of continuing decline in crude oil production, Government took several initiatives in 1992 with the objective of improving the overall performance of the petroleum sector of Trinidad and Tobago in the medium to long term. These initiatives included the review of the fiscal, legal and administrative arrangements governing the industry.

One development of major significance was the establishment of the Standing Committee on Energy, a Cabinet appointed committee whose objective is to facilitate and accelerate decision making in the energy sector. The Committee, which held its inaugural meeting on February 6, 1992, functions under the chairmanship of the Honourable Prime Minister and comprises ministers, technocrats and persons from the private sector. The Ministry of Energy and Energy Industries serves as the Secretariat for this Committee, which is responsible for advising Cabinet on energy policy, and monitors certain aspects of the development of major energy sector projects.

Rationalisation of the local petroleum industry also constituted a major part of Government's efforts at reforming the administration of the sector. A Merger Committee was established in May 1992 to coordinate the integration of the operations of the state-owned oil companies - Trintoc and Trintopec - into that of a single entity. The new company will be responsible for exploration, production, refining and international marketing of petroleum and petroleum products. Among other things, significant improvement in the efficiency and economies of oil production by the state is envisaged as a result of the merger.

In recognition of the falling crude oil prices and decrease in productivity of the country's oilfields, the petroleum tax regime was amended to provide the necessary incentives, designed to encourage activities which would reverse the trend in declining oil production and also, to stimulate exploration efforts for finding new reserves. An innovative feature of the new petroleum tax regime was the linking of Supplemental Petroleum Tax rates with the price of crude oil.

A Draft Energy Policy for Trinidad and Tobago (a Green Paper) was published for public comment at the end of the year. Following consultations with the relevant personnel and after formal debate in the House, Government plans to prepare a White Paper on Energy Policy, which will serve as a guide for the development of the energy sector.

In respect of exploratory activity, the Southern Basin Consortium, which comprises a local Joint Venture of Trintoc and Trintopec, and the foreign companies Exxon,

Chevron and Total, completed its Seismic survey programme this year. The Consortium, which is conducting exploration in the deeper horizons in the south of Trinidad is expected to spud its first well next year.

Additionally, it is expected that Unocal Corporation, which was successful in its bid for a licence to drill in Block 89/3 off the north-eastern coast of Trinidad, will be signing its Exploration and Production Licence early in 1993. The company will be employing an exploration strategy which is new to the local industry and which, if successful, could lead to additional exploratory prospects throughout the country. Licensing arrangements with BHP Petroleum for the offshore block 89/2 which is contiguous to Unocal's, are also expected to be finalized this year.

The Ministry of Energy and the National Gas Company continued discussions with British Gas and Texaco in an effort to provide a mutually acceptable basis for the early development of Dolphin field.

In the matter of field development, the South East Coast Consortium (SECC) was successful in assigning 95% of its interest in three of its fields in the Upper Reverse L Block, offshore the East Coast, to Enron Exploration Company. The development of these fields will assist the National Gas Company in meeting its gas supply obligations to its customers.

Much progress was achieved on the Trinmar waterflood project and the Trintoc Heavy Oil project, both of which were partially funded by the IDB energy sector loan. Preparations for the Waterflood project are about 87 percent complete and actual work on the project is scheduled to begin in 1993. The Heavy Oil project is also expected to begin next year.

In the area of refining, work on the upgrading of the Trintoc, Pointe-a-Pierre, refinery, which is also partially funded by the IDB energy sector loan, continued apace during 1992. This refinery modernization project is being undertaken to ensure that Trintoc will be able to dispose of its products, in the light of the stringent specifications to meet environmental requirements, being placed on fuels which are traded in the international market.

GEOPHYSICAL ACTIVITIES

Activities conducted by the Geophysical Section during 1992 included the following:

Transfer of the Workstation from the San Fernando Office to Riverside Plaza, Port of Spain.

Evaluation of exploration proposals submitted by Companies.

Witnessing of data acquisition on the following surveys:

(a) Southern Basin Consortium 2-D seismic survey conducted by Halliburton Geophysical Services Inc. (HGSI) for Exxon Trinidad Ltd.

(b) Galeota Transition Zone Survey conducted by Wavefront Inc. for Trintopec.

(c) Gravity Survey of the Pitch Lake, La Brea conducted by La Fehr Chan Technologies (LCT) for Lake Asphalt Company of Trinidad and Tobago.

(d) Offshore 3-D seismic survey conducted by Western Geophysical Company for Trinmar.

(e) Magnetic Susceptibility Study for the Southern Basin Consortium.

GEOPHYSICAL SURVEYS

A wide variety of geophysical activities was carried out during 1992, including seismic, gravity, and magnetic susceptibility surveys. The following is a summary of these activities by company.

Amoco Trinidad Oil Company

Amoco Trinidad Oil Company (ATOC) contracted Western Geophysical Company to conduct a seismic data acquisition programme over the following areas:

- Teak Field: 2-D seismic. This programme was conducted in November, 1992. The survey comprised 80 line km.

- East Mayaro/East Queen's Beach Area: 3-D seismic. This survey comprised 25,018 line km., and covered an area of 526 square km. The survey over this area was carried out between November, 1992 and February, 1993, and was designed to delineate the known gas accumulations in the area and to identify additional structures. Cost of acquisition and processing was approximately TT$17 million.

The entire programme was conducted by the seismic vessel M/V Western Monarch. On board the vessel was an Amoco integrated Q.C. system equipped with software which allowed preliminary 3-D seismic data processing.

During October to November, 1992, ATOC contracted the firm of Fugro-McClelland Inc./John Chance to conduct five site surveys. The vessel M/V Global Surveyor was used to conduct these surveys at the following locations:

- Samaan Deep Site
- Claro Site
- Cassia 'B' Site
- Poui
- Teak

Geophysical Studies:

The Regional Study (initiated in 1988) was completed in 1992. One of the goals of this study was to develop a structural model which was consistent both locally and regionally. To achieve this end, processes/ analyses such as Migration Before Stack (M.B.S.) and Amplitude Vs Offset (A.V.O.) were employed.

Enron Gas & Oil Trinidad Ltd

Enron Gas & Oil Trinidad Ltd. applied for and was granted approval to conduct a 3-D seismic survey over the South East Coast Consortium Block in December, 1992.

Enron contracted Digicon to conduct the 12,000 line km 3-D seismic survey which will commence in January 1993. Acquisition cost is estimated at US$3 million and data processing, including reprocessing of existing data, at US$1 million.

Lake Asphalt of Trinidad and Tobago(1978) Ltd.(LATT)

Lake Asphalt of Trinidad and Tobago (1978) Ltd contracted LCT Houston Inc. to acquire, process, and interpret gravity and survey data on and near the Pitch Lake, Brighton. Data was acquired at 149 stations on the Pitch Lake and along roads near the Lake during the period of June 15 to 24, 1992. The LATT data was integrated with that acquired by 103 gravity stations from a recent survey conducted by LCT for Exxon Company International in the Southern Basin. The purpose of the survey was to determine the reserves of pitch in the Lake by modelling the gravitational response of the density contrast between the low density pitch in the Lake and the underlying higher density host rock.

LATT supplied the Ministry with the following report in 1992:

- Gravity Acquisition, Data Processing and Interpretation Report for the Pitch Lake Gravity Survey, Trinidad, West Indies prepared by LCT Houston Inc.

Southern Basin Consortium (SBC)

The 2-D land seismic survey of the Southern Basin was terminated in 1992. Halliburton Geophysical Services Inc., the primary contractor, suspended work on May 21, 1992 as a result of industrial action initiated by field personnel. The Ministry's approval

for satisfaction of the Minimum Work Commitment was communicated with Exxon Trinidad Ltd. on July 03, 1992.

The regional gravity programme was completed on January 26, 1992.

Geophysical survey activity for 1992 is shown at Table I.

Table I
Geophysical Survey Activity

Activity	1992 Prod (km)	Total Prod (km)
Seismic, total production -	327.94	1,180.08
Gravity, total production -	85.68	939.87
Line clearance & survey -	279.14	1,242.24
Drilling -	808.93	1,224.85
Permitting -	253.22	1,243.41

A Magnetic Susceptibility Study involving numerous field visits and measurement of the magnetic susceptibility of cores from 22 wells from various areas was conducted in 1992.

Geophysical Studies:

Identification of a number of prospective leads in the Cretaceous and Miocene were made.

Trinmar

In 1992, Trinmar conducted a 3-D Bottom Reference Cable seismic survey over all its fields excluding South West Soldado. The survey was conducted by Western Geophysical Company during the period March, 1992 to July, 1992. The survey comprised 9,200 line km., and covered the North, East, and West Fields (an area of 460 square km). The survey was designed to supplement data from the 1984 3-D seismic survey in South West Soldado in order to provide continuous 3-D data over Trinmar's entire concession. The approximate cost of acquisition and processing was TT$45 million.

Trintopec

In 1992, Trintopec contracted the firm of Wavefront Inc. of Houston to conduct their Galeota Transition Zone Survey along the southern portion of the east coast of Trinidad. This 2-D telemetric seismic survey was conducted between February 4, and April 7, 1992 at an acquisition cost of TT $10 million. The survey covered 168 line km. and was designed to tie existing land and SBC seismic to this survey. Quality control was contracted to Titan Geophysical of Houston. Processing of the seismic data was carried out by Grant Tensor Geophysical Corporation of Houston at a cost of TT $150,000. As a result of delays experienced, processing was not completed in 1992.

Other

In 1992, Trintopec acquired the 2-D Plus[R] and 3-D Plus[R] software packages from Landmark Corporation. The hardware is to be acquired by Petrotrin in 1993.

EXPLORATORY DRILLING

In 1992 five exploration wells were drilled representing a fifty percent reduction of wells drilled in the previous year. The total depth drilled amounted to 31,520 ft (9 607 metres) in 1992 compared to 93,584 ft (28 543 metres). for the ten wells drilled in 1991. (See Appendix I). At the 1992 Annual Technical Meetings many companies indicated that exploratory drilling had been deferred, pending the revision of the Petroleum Tax Laws of Trinidad and Tobago.

The number of companies operating in Trinidad and Tobago during 1992 remained at twelve, most companies being engaged in the re-evaluation of their holdings. The map at (Figure I) shows the lease operatorships of the respective companies. An overview of the activities undertaken during 1992 by each company is given below.

Amoco Trinidad Oil Company

Amoco conducted no exploratory drilling in 1992. The company however, completed a regional study of its East Coast acreage from which several leads were identified, one of which has been upgraded to a prospect - the Samaan Deep Test-2.

Amoco leased the Rowan Gorilla IV rig for the Flambouyant gas well tie back into WEQB 1. The well flowed initially at 80 MMcfd gas and 1,830 Bcpd of condensate. Another well Flambouyant-2 16,000ft (4 880 metres) ATD is proposed for 1993. This well will test deeper sands than those reached in WEQB-1.

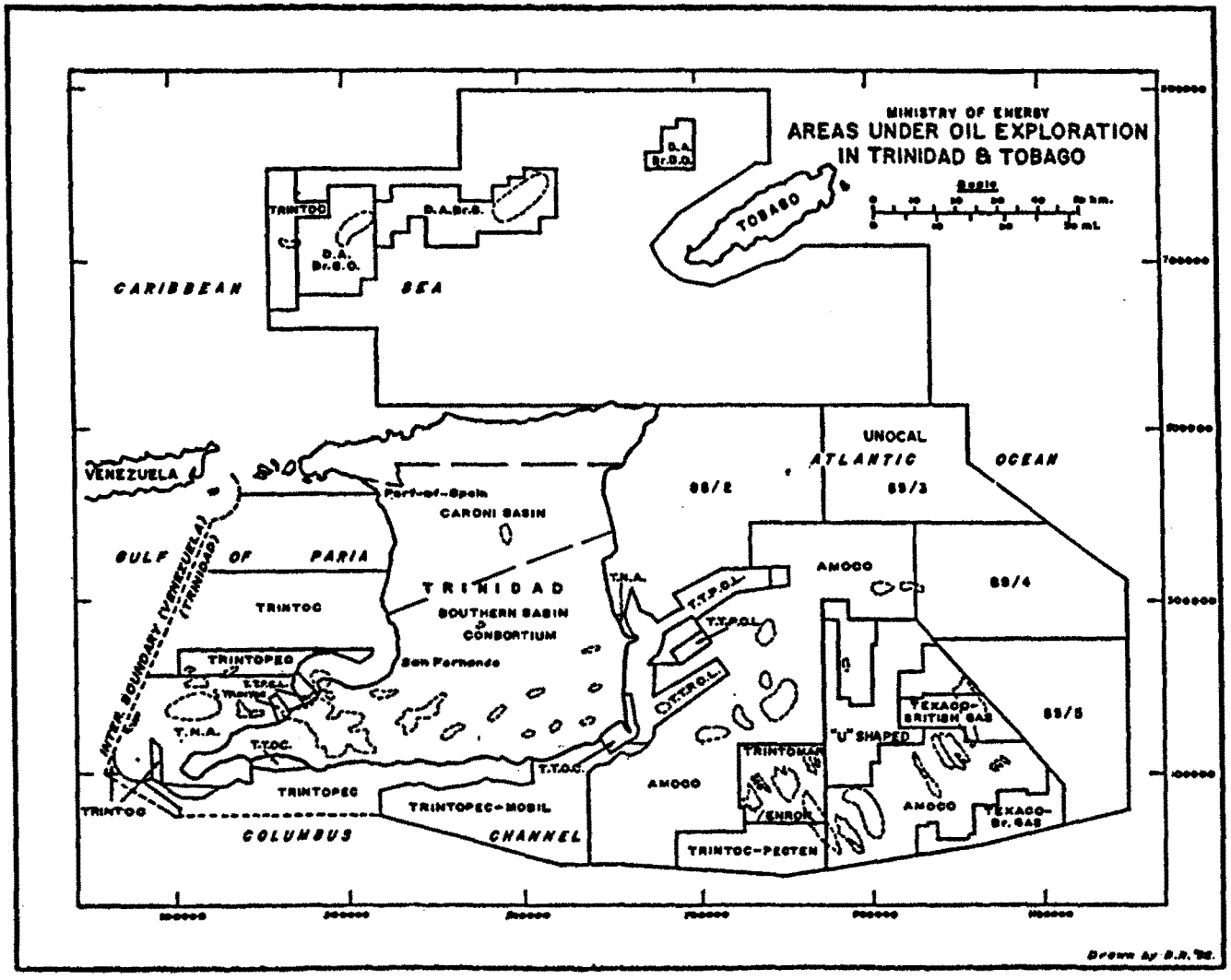
Exxon Trinidad

Exxon Trinidad was appointed operator for the 740,000 acre lease in the Southern Basin held by the Southern Basin Consortium which comprises Exxon, T&TLJV (Trintoc, Trintopec), Chevron and Total. The deeper horizons, both Cretaceous and Miocene, are being investigated. A Basin Analysis Study was initiated at Exxon's Houston offices, from which nine leads were identified. Of these, one was upgraded to prospect status. It is expected that this well will be spudded in September, 1993. Several officers from Trintoc and Trintopec along with one representative of the Ministry of Energy were seconded to Exxon in Houston for varying periods of training.

Mobil/Trintopec

Mobil is operating the S-11 block on the south coast of Trinidad. The lease for this block is jointly held by Mobil (70%) and Trintopec (30%). Carambola-1 was the first of a four well work programme for this block. This well was spudded on December

Figure I


MINISTRY OF ENERGY
AREAS UNDER OIL EXPLORATION
IN TRINIDAD & TOBAGO
TOBAGO
CARIBBEAN SEA
D.A. Br.B.G.
TRINTOC
VENEZUELA
Port-of-Spain
CARONI BASIN
GULF OF PARIA
TRINIDAD
SOUTHERN BASIN CONSORTIUM
TRINTOPEC
San Fernando
TRINTOC
TRINTOPEC
TRINTOPEC-MOBIL
COLUMBUS CHANNEL
UNOCAL
ATLANTIC OCEAN
AMOCO
TEXACO-BRITISH GAS
"U" SHAPED
TRINTOMAR
ENRON
TRINTOC-PECTEN
TEXACO-Br. GAS
88/2
88/3
88/4
88/5

16, 1991 and drilled to a depth of 14,129 ft (4 309 metres). The objective sands were not as well developed as expected and even though the log showed promise of hydrocarbons in the primary objective, the M. Gros Morne sand, the interval was not tested as it was deemed to be uneconomic to produce. In addition, high pressures were encountered and permission was requested to stop drilling before the approved total depth was reached. This was granted and the well was temporarily plugged and abandoned on February 21, 1992. Information obtained from this well is being integrated into existing data on the block. Mobil applied for and was granted a one year extension of the drilling period in order to study the new data. They are now actively seeking another foreign partner to continue this project.

Trintoc

Trintoc drilled three semi-exploratory wells during 1992: two in the Barrackpore field BP-576 and BP-577; and one in Catshill-CO-133. The two Barrackpore wells were unsuccessful while the Catshill well achieved success in sands which were not targeted originally.

BP-576 & BP-577

BP-576 and BP-577 were drilled on the southern limb of the Siparia syncline in separate fault blocks. The wells were drilled to evaluate the Wilson sands in this area which were supposed to be in a similar structural setting to the Forest Sands of the Barrackpore field on the northern flank of the syncline. The wells were spudded on the 4th and 19th February, 1992 and drilled to depths of 3,500 ft (1 067 metres) and 1,885 ft (575 metres) respectively. Both wells encountered the objective sands wet and were subsequently plugged and abandoned.

CO-133

This well was drilled on the doubly plunging anticline that forms the Catshill structure. It was spudded on the 11th May, 1992. The well tested the Catshill 'N' and 'O' Sand and the Herrera Sands. These sands were shallower and thinner than expected and were uneconomic to produce. However, at the proposed total depth the well-bore penetrated an expected sand interval and the decision was taken to deepen the well. The well is now producing from the Karamat-Herreras at 155 bopd on a 4/32' choke.
Trintoc also completed the reprocessing and interpretation of seismic data in offshore Brighton, and embarked on the digitization of all the company's well logs. Geological studies of the Lower Cruse and other geochemical and biostratigraphic studies were also undertaken to fine tune their exploration approach.

Trinmar

Trinmar drilled one exploration well, S-713, in the South-West Soldado field to a total

depth of 10,266 ft (3 131 metres). The well was spudded on the 24th January, 1992 and completed on the 14th March, 1992. Its main objective was the Lower Cruse sands, the main productive sand in the field, with secondary objectives being the Middle and Upper Cruse and Forest sands. The gross thickness of the objective sand was 160 ft. (49 metres) with a net oil sand thickness of 30 ft (9 metres). This well's initial production was 250 bopd its production is now steady at 240 bopd.

Trintopec

Trintopec did no exploratory drilling for 1992. Geological studies of the Lower Cruse and Gros Morne Formations in Moruga, south of the Canari Wrench Fault System were completed. A regional examination of the Lower Cruse in the Southern Basin and a multi-disciplinary examination of the East Galeota acreage were also undertaken.

Enron Gas And Oil Trinidad Ltd

The South East Coast Consortium, comprising Trintoc (40%), Trintopec (40%) and National Gas Company (20%), selected Enron Gas and Oil Company to develop the Kiskadee, Ibis and Oilbird Fields, in the upper Reverse 'L' Block. The Kiskadee field will be the first field to go into production in 1993.

Pecten/Trintoc

Pecten, after drilling the unsuccessful Pamberi-1, in the Lower Reverse 'L' Block, entered into discussions with the Ministry of Energy to renegotiate their commitments. They have inter alia proposed to undertake a geological study in lieu of fulfilling the work obligation of drilling a second well.

Premier Consolidated Oilfields plc (PCO)

During 1992, PCO proposed drilling a deep Icacos well to 10,000 ft (3 050 metres) to test the Cruse and Lengua formations on the northern flank of the Southern Range Anticline. Those formations are thought to be in a structural setting similar to Trinmar's South- West Soldado Field. Drilling of the well has been deferred until a seismic interpretation of the area becomes available. PCO will continue to focus on the development of its landholding.

British Gas

British Gas is still involved in negotiations with the Ministry of Energy and the National Gas Company (NGC) in respect of the development of Blocks 6 and E, as well as for the supply of gas to the NGC to make up the expected shortfall in 1995.

Unocal

Unocal was awarded the lease for Block 89/3, and negotiated the terms of the licence agreement with the Ministry of Energy during 1992. Estimated capital expenditure for this project is at least US$22 million.

BHP Petroleum

BHP was awarded the lease for Block 89/2. However, at the end of 1992, discussions between the company and the Ministry of Energy concerning resumption of negotiations for their Exploration and Production licence were still continuing. The minimum proposed expenditure for this project is US$17 million.

Anderman Smith (Caroni Basin)

Negotiations for the licence are continuing between Anderman Smith, Shell, Krishna Persad and Associates and the Government of Trinidad and Tobago concerning the exploration of the Caroni Basin. This project is divided into two phases of three years each. The Mahaica gas field is to be excluded from the area of exploration. Anderman Smith will be the operator for a group which comprises:

Anderman Smith Operating Co.	- 25%
Shell B.V.	- 25%
Krishna Persad & Associates	- 9%
GOTT	- 41%

Trintomar

Trintomar completed its development programme for the Pelican field with the drilling of well PA-10 and PA-11. Trintomar will continue to produce gas and condensate from this field.

CRUDE OIL PRODUCTION AND DEVELOPMENT DRILLING ACTIVITY

Crude Oil Production

The average crude oil production for Trinidad and Tobago during 1992 was 135,750 bopd, a decrease of 6.0% when compared with the 1991 production of 144,470 bopd. All companies showed decreases in production rates except Trintoc which showed a small increment of 1%. The only factor having a positive impact on production was the Lease Operatorship and Farmout Programme by Trintoc and Trintopec, which in relative terms contributed significantly to oil production at these companies.

Total marine production averaged 100,537 bopd, which represented 74% of the total 1992 production.

Amoco Trinidad

Amoco Trinidad experienced an 8% decline in average crude oil production which fell from 69,938 bopd in 1991 to 64,351 bopd in 1992, mainly as a result of decreased drilling activity.

Trinmar

Crude oil production for Trinmar declined by 5.7% to average 31,988 bopd in 1992. A major pipeline rupture in August together with continued problems associated with gas lift optimization and "bean freezing" (the

cooling of natural gas through orifice which causes water to freeze and block opening) contributed to the decline.

Trintopec

Trintopec's, crude oil production fell to 17,352 bopd, a 4.8% decrease from the 1991's average of 18,217 bopd.

Trintoc

Crude oil production at Trintoc averaged 17,038 bopd, one percent more than the 1991 average of 16,952 bopd. The production gains from new wells, together with an improved Lease Operatorship performance, contributed towards this increase.

Premier Consoidated Oilfields

Production at the company averaged 800 bopd. No new oil was generated from drilling in 1992.

DEVELOPMENT DRILLING ACTIVITY

The total depth drilled in 1992 was 67 758 metres. This was a 48.6% decrease from the 1991 figure of 132 062 metres. There was a concomitant decline in the number of well completions, from 98 in 1991 to 59 in 1992.

Amoco Trinidad Oil Company

Amoco Trinidad Oil Company drilled fewer wells in 1992 than in 1991. Only 8 wells were spudded during the year as compared with 19 during the previous year. Three rigs were engaged in drilling development wells. The depth drilled was 18 443 metres which was 48% less than the previous year. Activity was mainly focussed in the Teak Field where 6 wells were drilled and completed. The remaining 2 wells were drilled in the Poui and Samaan fields (one each).

The number of Ministry-approved workovers increased to 109 in 1992 from 102 during the previous year. But there was no correlation between the increased activity and production gains from these workovers. Far greater oil production gains accrued from workovers performed in 1991 than in 1992 (5768 bopd in 1991 as compared with 760 bopd in 1992), thereby reflecting the maturity of the fields.

Trinmar

Only one rig, the R.M. Womack, was used for drilling up to March, when all activity was terminated for the year. This curtailment in drilling arose as the company awaited a new petroleum taxation regime for the oil industry. The lone development well completed was S-712, while the exploratory well drilled was S-713.

Trinmar performed 32 Ministry-approved workovers in 1992, twice the amount done in 1991. A large portion of these workovers was conversions to water injectors for the

planned waterflood expansion project in the Soldado Main Field.

Trintopec

Trintopec used only one drilling rig, HWSL Rig #1, and completed 25 development wells during 1992. In 1991, 36 wells were drilled. Drilling was curtailed during the second half of the year due to the company's financial position.

The company's workover schedule was also affected by the financial status of the company. Ninety-two workovers were performed compared with 200 jobs performed in 1991.

Trintoc

Two rigs, TTOC #1 and WSL #12 were used during the year and a total of 18 wells was spudded. Of these, 3 were appraisal wells and 15 were development wells. Total depth penetrated was 23 827 metres a 23% increase over the depth drilled in 1991. An 11.3 rig month programme of activity was achieved by Trintoc.

The number of Ministry-approved workovers done in 1992 was 50 which is 10 less than those done in 1991. Half of these were recompletions. New oil averaged 380 bopd.

Premier Consolidated Oilfields plc

One development well - FZ 282, was drilled to a depth of 945 ft (288 metres), accounting for 0.3 rig months, and 11 Ministry approved workovers were performed in 1992.

SECONDARY AND ENHANCED OIL RECOVERY OPERATIONS

Secondary and enhanced oil recovery operations in Trinidad and Tobago continued to play an important part in the production of crude oil. Production generated from these methods (water, steam and carbon dioxide injection) averaged 19,086 bopd and accounted for 13.9% of the nation's crude oil production.

Water Injection

In 1992 there were 16 waterflood projects into which a volume of 15,667 bwpd was injected and which resulted in a production rate of 9,273 bopd.

Amoco's Poui waterflood, which was inactive in 1991, was brought back on stream in March, 1992, but no response has so far been observed. The Samaan waterflood project was formally abandoned due to the company's inability to convey adequate quantities of water to the injection wells, because of an unserviceable water transmission line from the Teak to Samaan field.

Trintoc and Trintopec also saw a decline in production. This was due to unavailability of good quality water for injection, which impaired the companies' efforts to sustain

waterflood oil production levels. Accordingly production at these companies fell by 8.9% and 15.4% respectively during 1992.

Steam Injection

Crude oil production from this method averaged 9,536 bopd. Less steam was injected in 1992 than in 1991 by all the companies engaged in this activity - Trintoc, Trintopec and PCO.

In the case of Trintopec, there was a concerted effort to reduce steam injection volumes in order to minimize the occurrences of blowouts. At Trintoc, corrosion within the steam generation plants affected the company's ability to inject more steam.

Carbon Dioxide

Trintoc was the only company which produced crude oil by the injection of carbon dioxide into its reservoirs. An average of 7.5 MMcfd of carbon dioxide was injected into the five active projects and oil production averaged 277 bopd. These figures showed increases of 52.6% and 14.4% respectively over the 1991 figure.

NATURAL GAS

Natural gas production averaged 20.26 million cubic metres a day (715 MMcfd), a marginal decrease of 0.14% on the 1991 rate.

Marine Production

Amoco Trinidad Oil Company

Amoco Trinidad Oil Company the country's largest gas producer and supplier of natural gas to the National Gas Company (NGC), continued to meet domestic gas needs during 1992. The company accounted for 83.9% of total production.

For 1992, the company's daily gas production averaged 17.01 million cubic metres per day (600 MMcfd), a 7.9% increase on the 1991 figure, of which 10.45 million cubic metres a day (369 MMcfd) of natural gas was produced to NGC sales line. It should be noted that the 1991 sales figure was 9.51 million cubic metres a day (336 MMcfd). In addition to the company's gas well production, sales gas and gas for gas lifting was sourced from its Samaan compression facility.

Trintomar

In its third year of operations, Trintomar experienced another disappointing year of activities. For the entire year, the company produced 418 million cubic metres (14.76 bcf) of gas with 0.86 million barrels of condensate. The average daily gas produced was 1.13 million cubic metres a day (40 MMcfd) with 2,568 barrels of condensate a day (bcpd), which represented a 33.3% decrease when compared with the 1991 gas production figure of 1.73 million cubic

metres a day (61 MMcfd).

Trinmar

Trinmar, the other marine-based producer, accounted for 6.2% of total natural gas production at a rate of 1.25 million cubic metres a day (44 MMcfd). This represented a 3.6% decrease when compared with the production of the previous year. The decrease was due to a correction of gas figures on the company's metering system.

Land Production

The natural gas production from the land fields of the state owned companies, Trintoc and Trintopec, represented 4.1% of total production. Trintoc achieved a production rate of 0.59 million cubic metres a day (21 MMcfd), an increase of 10.5% over the production rate for 1991. Trintopec, however, producing at 0.23 million cubic metres a day (8 MMcfd), experienced an 11.1% decrease when compared with 1991. Both companies continued to supplement their fuel needs with purchases from the NGC. Trintoc's purchases were for use in refinery operations and Trintopec's were used primarily for steam generation in enhanced oil recovery operations.

Conservation

The NGC compressor platforms compressed a total of 1.06 billion cubic metres (35.13 bcf) of gas or 2.9 million cubic metres (102.86 MMcfd). Of this, 0.99 billion cubic metres was delivered into the sales line at an average daily rate of 2.72 million cubic metres a day (95.97 MMcfd), while the remainder 0.19 million cubic metres a day (6.89 MMcfd) was utilised as fuel on the platforms in the Teak and Poui fields.

On the Teak compressor platform, 0.63 billion cubic metres (22.25 bcf) of gas was compressed at an average rate 1.72 million cubic metres a day (60.88 MMcfd), in comparison 1.55 million cubic metres a day (54.9 MMcfd) was compressed in 1991. The increase was attributed to less downtime on the compressors.

On the Poui compression platform, a total of 0.436 cubic metres (15.36 bcf) of gas was compressed at an average daily rate of 1.19 million cubic metres a day (41.98 MMcfd). In comparison, 1.12 million cubic metres a day (39.5 MMcfd) was compressed in 1991. It should be noted that the volume of gas compressed has been fairly steady for the past four years averaging 1.13-1.16 million cubic metres a day (40-41 MMcfd).

Utilisation

Gas utilisation for 1992 was 81% of total production. Overall utilisation averaged 22.00 million cubic metres a day (777 MMcfd), which included quantities of re-compressed gas used for gas lift. This overall utilisation showed an increase of 0.2% when compared to that of 1991. The oil

companies accounted for 30.6% of total consumption. The energy-based and small industrial users accounted for the remainder which was used both as fuel and as chemical feedstock.

Amoco's gas lift requirements increased in the second half of 1992 and averaged 3.76 million cubic metres a day (132.9 MMcfd), thus resulting in an increase of 4.1% when compared with that of 1991. Some of the gas used for gas lift was low pressure gas which had been collected and compressed by NGC.

Trinidad and Tobago Electricity Commission (T&TEC) utilised natural gas at a rate of 3.87 million cubic metres a day (136.7 MMcfd), a 5.4% increase on the rate for 1991. T&TEC continues to be the most significant consumer of natural gas taking up 26.8% of the gas sold by NGC.

The manufacturers of fertilisers - Fertrin, Hydro-Agri, and Trinidad and Tobago Urea Company (TTUC) - accounted for 45.1% of the total volume of gas utilised. The fertilizer consumed gas at an average daily rate of 6.54 million cubic metres a day (231.0 MMcfd), which was a decrease of 0.08% on the previous year.

The daily average consumption for Fertrin was 2.58 million cubic metres a day (91.0 MMcfd). The Hydro-Agri's Braun plant used 0.88 million cubic metres a day (31.0 MMcfd), the Tringen I plant consumption was 1.5 million cubic metres a day (53.0 MMcfd), while the Tringen II used 1.3 million cubic metres a day (46.0 MMcfd). TTUC plant accounted for 0.28 million cubic metres a day (10.0 MMcfd).

Trinidad and Tobago Methanol Company (TTMC) utilised gas at a rate of 1.3 million cubic metres a day (46.0 MMcfd), an increase of 9.5% when compared with the rate for 1991.

Ispat utilised 0.82 million cubic metres a day (29.0 MMcfd) of natural gas. This figure represented a 7.4% increase on the previous year.

Gas production from Trintoc's producing fields was supplemented by purchases from NGC to provide the fuel necessary for its refineries. Natural gas consumption in the refineries averaged 1.23 million cubic metres a day (43.6 MMcfd), a 3.1% decrease when compared with 1991.

Phoenix Park Gas Processors Company utilised an average of 0.58 million cubic metres a day (20.5 MMcfd) during 1991, while Trinidad Cement Limited (TCL) and other small consumers continued at a combined daily average consumption of 0.56 million cubic metres a day (19.7 MMcfd).

REFINING AND PETROCHEMICAL INDUSTRY

The combined crude throughput of both the Pointe-a-Pierre and Point Fortin refineries during 1992 was 115,633 bpcd, representing an increase of 5.8% over that of the

previous year; this was due primarily to the processing of imported crudes. (Table II). A total of 16.7 million barrels of crude oil was imported and processed under processing arrangements. Imported crudes were Venezuela's Lago Cinco and Lago Treco, and Suriname's Saramacca. (Table IV). Total indigenous crude processed amounted to 25.6 million barrels. Table III shows Refinery Output for petroleum products for 1991 and 1992.

Table II
Average Daily Refinery Throughput
1988 - 1992
(bpcd)

Year	Point Fortin	Pointe-a-Pierre	Total
1988	21,300	64,981	86,281
1989	28,992	53,051	82,043
1990	18,787	78,780	97,567
1991	29,390	84,034	113,424
1992	30,401	85,232	115,633

Table III
Refinery Output

(bpcd)

Product	1991	1992
LPG	479,280	785,678
Mogas	5,478,567	5,739,549
White Spirit	(341,936)	(628,566)
Aviation Gas/Aviation Turbine	1,664,565	1,904,607
Kerosene	2,506,898	1,660,946
Gas Oil	5,412,518	6,791,335
Fuel Oil	21,284,776	22,951,299
Lube Oil	250,940	447,932
Bitumen	143,115	95,417
Petrochemical	4,470	(8,725)
Other Finished/Unfinished product	2,331,398	1,334,824
Gas Loss	761,070	1,245,232
TOTAL	39,975,661	42,319,528

Table IV
Crude Oil Imports
(under processing agreement)
(bbl)

	1991	1992
Lago Cinco	3,358,359	5,668,543
Lago Treco	7,147,258	10,622,548
Saramacca	64,917	561,021

Consumption of Petroleum Products in Trinidad and Tobago

Overall domestic consumption of petroleum products declined by 25.8% in 1992 when compared with the previous year's consumption. See Table V

Sales in motor gasoline, gas/diesel oil, fuel oil, and asphaltic products declined by 33.7%, 14.0%, 87.6% and 28.9% respectively. On the other hand sales in Avgas and Kero/jet increased by 93.5% and 19.4% from 1991 to 1992.

Table V
Domestic Petroleum Product Consumption
(Million Litres)

Product	Quantity	
	1991	1992
LPG	77.3	43.5
Motor Gas	486.3	322.6
Kero/Jet	0.8	1.5
Gas/Diesel Oil	82.2	98.2
Fuel Oil	140.7	0.8
White Spirit	6.4	1.4
Petrochemicals	0.5	0.3
Asphaltic Products	7.6	5.4
Total	801.8	473.7

NITROGENOUS FERTILISERS AND METHANOL

Total production of ammonia during 1992 was 1 912 363 tonnes, a decrease of 1.44% from that of the previous year. Fertrin had the largest drop, followed by Tringen II. All the other plants recorded increased production. Total exports during 1992 was 1 650 294 tonnes, a modest gain of 0.82% over 1991.

The Tringen I plant produced 384 571 tonnes of ammonia in 1992, a 6.5% increase over the previous year, while exports amounted to 363 476 tonnes, 1.2% below the 1991 exports.

Tringen II produced 518 175 tonnes of ammonia in 1992, a 2.5% decline when compared with the production of the previous year. Restrictions in natural gas supply were mainly responsible for the decline.

At Fertrin, the combined production from the "01" and "02" units was 772 654 tonnes, 5.66% less than that of the previous year. Extended duration of the debottlenecking exercise at the units was mainly responsible for the decline. Total exports of ammonia from Fertrin during 1992 was 508 283 tonnes, while local sales amounted 252 589 tonnes.

At Hydro-agri Trinidad Limited (formerly Fedchem), the Braun Unit produced 236 963 tonnes of ammonia, an increase of 1.8% above the previous year's figures. This is the highest production recorded at the plant since 1988. Exports during 1992 amounted to 247 953 tonnes, an 8.5% increase over the previous year's levels.

TTUC produced 455 090 tonnes of urea, a decrease of 13.3% below 1991, and total exports was 439 111 tonnes. The plant was also affected by restrictions in supply of natural gas.

Methanol production increased in 1992 by 6.4%. During the year 481 716 tonnes were produced by the TTMC. Export was 467 150 tonnes, and increase of 1.5% over that of the previous year.

See Table VI for a summary of the production and exports of petrochemicals in 1992

Table VI
Production & Exports of Petrochemicals 1992
(tonnes)

Company	Product	Production		Export	
		1991	1992	1991	1992
Hydro Agri	Ammonia	232 768	236 963	226 771	247 953
Tringen 1	"	359 508	384 571	367 929	363 476
Tringen II	"	531 254	518 175	531 771	530 582
Fertrin	"	816 384	772 654	510 279	508 283
Sub Total	"	1 939 915	1 912 363	1 636 750	1 650 294
TTMC	Methanol	452 882	481 716	460 083	467 150
TTUC	Urea	525 023	455 090	484 466	439 111
PPGPL	Propane	-	1 428 750	-	1 378 757
	Butane	-	934 260	-	909 889
	Natural Gasoline	-	1 069 297	-	-

PETROLEUM INSPECTORATE

During 1992, the five units of the Petroleum Inspectorate continued in operation, and there was no major reorganization.

(a) Fiscalization and Galeota

At Galeota, there was a 100% coverage of oil fiscalization and shipment of crude.

(b) Inspection Unit

This unit continued to cover the inspection of rigs, offshore structures and land producing facilities. Just over 200 of these inspections were carried out this year.

An extra effort was made to ensure that proper procedures were instituted for assessing the facilities of the lease operators.

(c) Refining and Petrochemicals

The frequency of inspections at the refinery API separators was reduced. This was part of a deliberate attempt to allow the company sufficient time to implement the Ministry's recommendations. As such a total of 101 API separator inspections was done at the Pointe-a-Pierre and Point Fortin refineries, as compared with in 1991. Also, 141 effluent samples were taken at both refineries and sent to Cariri for analysis of oil and grease content.

(d) Storage and Marketing

There was an increase in the number of storage applications received by the Ministry. This reflects in some measure the increase in the demand for diesel fuel. The replacement of leaking tanks coupled with requests for additional storage also contributed to this increase.

The storage and marketing unit intensified its effort at monitoring and sampling of gasolene quality. Seventy three service stations were sampled for gasolene quality, while 218 service stations were calibrated.

(e) Pipeline and Oil Loss

Activities in this section were brisk as personnel responded to the many oil leaks, caused mainly by human error.

ACCIDENTS

There was a decrease in the number of reportable lost-time accidents which occurred in the oil industry during 1992. A total of 274 reportable lost-time accidents was recorded in 1992, 46 less than the amount recorded in 1991.

At Trintoc, there were 82 accidents in the manufacturing sector at the Pointe-a-Pierre and Point Fortin refineries and 48 in the production and drilling operations.

Trinmar had 46 accidents, Trintopec 53, Amoco 36, NGC 11, Exxon 2 and Trintomar 2 in their drilling and/or production operations.

Fatalities

There were five fatalities in 1992, one more than the number that occurred in 1991.

At Trintopec, there was one fatality at Erin Well 82 on 16th December, 1992, when a worker was pinned between a pumping unit crank weight and the body of the pumping unit.

The other 4 fatalities took place at Amoco. Three occurred on Teak C platform during an acid stimulation on Teak C-18. The fourth fatality occurred on the Poui B platform on March 26, 1992, during rigdown operations.

Non-Personal Accidents

Vehicular accidents accounted for most of the non-personal accidents. A total of 388 vehicular accidents was reported, with Trintoc and Trintopec recording 130 and 111 respectively.

There were 5 well "blowouts" in 1992, all of which occurred at Trintopec. Two of these occurred in the Guapo field, 2 in Quinam and 1 at Moruga.

POLLUTION INCIDENTS

In 1992, 282 incidents of pollution were reported. As shown in Table VII Approximately 8,115 bbl of crude oil escaped into the environment and 5,079 bbl were recovered. Table VIII shows a comparison of the situation with respect to pollution in 1991 and 1992.

Trintoc, with 257 reported incidents experienced the greatest number of oil spills. The majority of these oil spills was due to trunk, pump and pipeline leaks. The company recovered 3,382 bbl (58%) of the estimated 5,835 bbl of crude oil which escaped during the year.

Trintopec reported 17 oil spill incidents and achieved considerable success in recovering escaped oil during the year. Of the estimated 1,915 bbl which were spilled, 1,697 bbl (89%) were recovered.

Trinmar reported 3 oil spill incidents offshore with an estimated net loss of 320 bbl of crude oil.

Amoco Trinidad Oil Company reported 3 oil spill incidents offshore Point Galeota with an estimated net loss of 32 bbl of crude oil while NGC experienced 2 oil spill incidents with an estimated net loss of 12 bbl of crude.

Table VII
Oil Pollution Statistics 1992
(bbl)

Company	No. of Incidents Reported	Est. Qnty. Spilled	Est. Qnty. Recovered	Est. Net Loss	% Recovered
Trintoc	257	5,835	3,382	2,453	58
Trintopec	17	1,916	1,697	219	89
Trinmar	3	320	0	320	0
ATOC	3	32	0	32	0
NGC	2	12	0	12	0
TOTAL	282	8,115	5,079	3,036	63

Table VIII
Comparison of Pollution Statistics

	1991	1992	% Change in 1992
Spill Incidents	282	282	0
Oil Spilled (bbl)	5,346	8,115	52
Oil Recovered (bbl)	2,861	5,079	78
Oil Lost (bbl)	2,485	3,036	22

Table IX
Summary Report of Crude Oil Spilled
By Volume (bbl)

Period	Barrels Spilled	Barrels Recovered	Net Loss	Percent Recovered
1989	2,452	1,948	504	79
1990	10,855	8,889	1,966	82
1991	5,346	2,861	2,485	54
1992	8,115	5,079	3,036	63
TOTAL	26,768	18,777	7,991	70

National Oil Spill Contingency Plan

Mr. Oswald Adams, Deputy Controller, National Oil Spill Contingency Plan was Trinidad and Tobago's delegate to the Sub-Regional meeting of Government designated experts of the Island States and Territories of the Wider Caribbean on Oil Spill Contingency Planning, which was held in Curacao from November 23-27, 1992. Representatives from all the Island States and Territories of the Wider Caribbean with the exception of Cuba, Grenada, Haiti and St. Vincent, along with those from six International Organisations comprised the 50 participants at the meeting.

The meeting was convened by the International Maritime Organisation (IMO) in order to finalise a revised "Sub-Regional Oil Spill Contingency Plan for the Island States and Territories of the Wider Caribbean" and to review the institutional arrangements for supporting sub-regional cooperation in oil pollution preparedness and response.

Japanese International Cooperation Agency (JICA) - The Study on Pollution Prevention and Control within the Petroleum sector in the Republic of Trinidad & Tobago

The Japanese 8 - member team visited this country from September 12 - September 29, 1992 to conduct a preliminary survey for the Development Study for Pollution Prevention and Control within the petroleum sector.

The Japanese Survey Team and its local counterpart agency, the Ministry of Energy and Energy Industries visited Trintoc, Trintopec, Trinmar, Amoco and National Petroleum Marketing Company Ltd., (NPMC) to obtain first hand information on the pollution problems experienced by the respective companies. Effluent samples were taken by the Japanese for testing both in Trinidad and in Japan. The Ministry of Energy and Energy Industries agreed to the Scope of Work put forward by officials of JICA. The objectives of the proposed study are as follows:

- To develop strategies for minimising the occurrence of oil pollution within the petroleum sector.
- To identify appropriate technology for the treatment of produced water and the tight emulsions associated with sand production and thermal crude oils.
- To develop an effective system for the collection and disposal of spent lubricating oils and other oily wastes from service stations.
- To identify appropriate technology that can be used to rehabilitate disposal sites which contain large volumes of "oil-contaminated sediments" from oil storage tanks.

The study will cover both the rivers traversing the producing areas and the environs of the local oil refineries. These seriously polluted areas are:

- Silver Stream
- Guapo River
- Vance River
- John River/Molai Catch
- Trintoc, Pointe-a-Pierre Refinery and its environs
- Trintoc, Pt. Fortin Refinery and its environs.
- Trinmar, Point Ligoure Main Storage and its environs.

The output of the study will include:

- Completion of an environmental survey in oil producing areas.

- Identification of causes of oil pollution.

- Analysis of samples of produced water and oily sludge.

- Identification of appropriate technology for the prevention and control of pollution.

- Training requirements of personnel within the petroleum sector.

- Development of a programme for the prevention and control of pollution.

LABORATORY ANALYSES

The Petroleum Testing Laboratory, CARIRI, honoured its TT $500,000 contract with the Ministry of Energy and Energy Industries in 1992 by performing analyses on 1,632 samples. See Table X for the tests which were performed.

Table X
Laboratory Analyses

Description		Total No. Samples Tested	Fee
Gasoline Analysis Including Lead	-	29	$ 27,460
Gasoline Analysis Excluding Lead	-	368	54,040
Royalty Lease Evaluations 1	-	30	101,000
Oil and Grease	-	96	15,180
Effluent Sampling	-	966	134,092
Crude Oil Testing	-	143	20,605
TOTAL		1,632	352,377

The Laboratory also co-operated with the Ministry in its monthly sampling and effluent quality studies at Trintoc.

QUARRY UNIT

The year began with a welcome addition of staff to the Quarry Unit - Mr. Richard Oliver joined the Ministry in December 1991

as a temporary Mining Inspector. However, Mr. David Jaggernauth, Geologist Assistant resigned. Mr. Howard John, Geologist II who functioned as head of the Quarry Unit for the first three months of the year was therefore responsible for exposing his only subordinate professional staff, Mr. Oliver to the responsibilities of his portfolio, including the field aspects of his duties. During this period also, a decision was taken to shift the survey crew from their re-evaluation survey of the acreage of the Ministry of Works, Tapana, to Tattoo Trace, Valencia, where there had been reports of large-scale encroachment by Bestcrete Limited onto the acreage of the National Quarries Company Limited. Much time was also spent investigating and taking follow-up action with respect to quarrying activity on San Fernando Hill.

With the return of Mrs. H. Inniss-King to the Ministry, Mr. C.T. Alexander, Geologist II was brought back to head the Quarry Unit by April of this year, so that the Unit then had a staff complement of 3 persons, although effectively one can say two. For a significant part of the year, Mr. H. John was assigned activities which were not directly related to the portfolio of the Quarry Unit; this included finalizing detailed proposals for a number of important industrial minerals policy issues that had been identified as priority areas in 1991.

Field Crew Deployment

Exploratory Activity

Survey - The Re-Evaluation of the Sand and Gravel reserves of the Ministry of Works - 250 Acre Block.

Location - Tapana Road, Valencia

Time - January-June, 1992 (Survey began in 1991)

Results - This survey which was started in 1991 continued into 1992 and a total of 62 holes were drilled to an average depth of 18.9 ft (5.8 metres). per hole and an accumulative footage of 1177 ft (359 metres). The survey was aborted in June, 1993 when it was decided that it would be futile attempting to prepare an evaluation report while the Ministry of Works was continuously carrying out excavations in the areas where the drilling proved up gravel deposits.

Survey - Re-definition of the boundaries of Bestcrete Limited Quarry Concession re: complaints from National Quarry Company Limited.

Location - Tattoo Trace, Valencia

Time - January-June, 1993

Results - This survey was undertaken as a result of complaints of encroachment by National Quarries Company Limited against Bestcrete Limited.

This survey only involved the Mining Survey Technicians and crews and not the auger crew which was in Tapana during this period.

The redefinition exercise was affected by the operations of Bestcrete Limited. Several pickets were bulldozed along lines by Bestcrete Limited, thus frustrating the survey's objectives. However, 34,507 lines were chained over an area of 59A 3R 35P. The survey was aborted.

Survey - Sand and Gravel Evaluation Survey

Location - Oropouche Road, Valencia

Time - October-December, 1992

Results - This survey was undertaken in the Oropouche Road area on lands that were partially previously worked. Both the survey and auger crews were actively engaged in this exercise with 12,685 ten feet of lines being cut and chained, while 20 holes were drilled to an average depth of 21 feet (6 metres) and accumulative footage of 423 feet (129 metres). This survey was to be continued into 1993.

Warehouse Activity - June to October

Responding to a request that the valuable geological/geophysical materials and samples housed at the Ministry's depository, otherwise known as the Warehouse, Juman's Complex, Morvant, were to be transferred to Pointe-a-Pierre, the field crews were mobilized and deployed to begin the preparatory work for the moving of the contents of the warehouse.

The crews spent approximately five months on this exercise, supervised by professional staff of the Geological Section and the Records Manager of the Registry Department.

Quarries Advisory Committee

For a number of reasons the Committee remained dormant for almost the entire year. Issues were dealt with on a case-by-case, agency-by-agency basis, with the vast majority of them being deferred.

The only meeting for the year was held on December 8, during which it was decided to

establish interim policy guidelines for co-ordinated decision-making on day to day issues. Practical guidelines were established for the following reasons:

- Illegal Operations
- Encroachment
- Royalties
- Rehabilitation
- Pollution
- New Concessions
- Relocation
- Resumptions
- Third Party Arrangements

Blasters Certification Committee

The above Committee which was set up in March, 1991 by the Ministry of Labour, Employment and Manpower Resources, Occupational Safety and Health Division (Factory Inspectorate) and which is chaired by Mr. Arnim Drakes, the Industrial Inspections Supervisor includes Mr. C.T. Alexander, Ag. Senior Geologist of this Ministry, Mr. Herbert Sukhu of Trintoc and Mr. David Moses of Eric Williams Medical Complex.

This informal Committee has the responsibility of assisting the Industrial Inspections Supervisor in the discharge of his duties in accordance with the relevant provisions of the Factories (Protective) Measures Order of 1977. The Committee held several meetings in 1992 in which the competence of persons desirous of being recommended to the Commissioner of Police to be authorized to carry out blasting operations in Trinidad and Tobago were interviewed and their competence in this regard assessed.

On December 21, 1992 Cabinet formally established a Blasting Advisory Committee after accepting the recommendations of the Minister of Labour and Cooperatives that the originally informal Committee be ratified with the same members becoming the Cabinet appointed Committee.

Resource Allocation

In the absence of significantly increased demand, and ratified policy guidelines, no recommendations were made to Cabinet with respect to the allocation of new lands for quarrying.

Policy and Planning

In addition to the interim policy guidelines developed for day to day administrative decision-making, several outstanding matters were identified on the agenda for this meeting, but because of time and other constraints, all were deferred to 1993. Outline proposals were developed for:

- Policy Reform
- Administrative Reform
- Legal Reform
- Major Outstanding Problems
- Overall Sectoral Development

Detailed proposals are expected to be sent to Cabinet during 1993.

Supportive

Consistent with our mandate to provide assistance on matters related to quarrying, and in keeping with the thrust towards more effective policy co-ordination in this area, the Ministry was, once again, represented in different fora dealing with mining related issues:

(i) Forestry Division - Quarry Rehabilitation Study

In the final quarter of the year, several members of the unit provided assistance to foreign consultants conducting a quarry rehabilitation study on behalf of the Forestry Division. Assistance was provided in the form of personal discussions, field trips, meetings and attendance on a Steering Committee established for this purpose.

(ii) National Quarries Company - Strategic Planning Exercise

Also in the latter half of 1992. The Ministry provided continuous assistance to the National Quarries Company in the formulation of their strategic plan. Assistance was given in the form of discussions with the Chairman, and the meetings with the Board.

Regulatory

The addition of personnel to the Quarries Unit made it possible to resume routine monitoring of quarry operations, and much work of this nature was done throughout the year. Monitoring operations focussed on the Valencia area, where there was an upsurge in encroachments and other unauthorised mining activity.

Finally, a number of complaints were investigated during the year, with most of these emanating from the Ravine Sable and Claxton Bay areas, where the mining of plastering sand continues to be one of the most critical environmental issues in the quarrying industry. As a result of these complaints a meeting was held at this Ministry with operators and residents of the Ravine Sable area, in an attempt to foster tolerance and cooperation, and also to identify practical remedies to the situation.

Projects

Once again, the shortage of staff made it impossible for the Unit to attempt any additional projects.

Training

No formal training of Unit Staff took place in 1992.

ENERGY PLANNING

The Energy Planning Division is responsible for a wide range of activities within the Ministry which are related both to its primary portfolio of planning and also to the administration and implementation of energy sector policies. The redesignation of the portfolio of the Ministry in 1992 to include energy industries and the introduction of new initiatives within the sector resulted in a significant increase in the demands made on the resources of the Division - both human and material. The Division was hard pressed to discharge its responsibilities and was forced to undergo a continuous process of prioritization. In addition to the above, the situation was further aggravated by the stagnation which persists in the acquisition of computer equipment and related materials.

The inauguration of the Standing Committee on Energy in February, 1992 and the designation of this Ministry as its Secretariat had a significant impact on the operations of the Division. This Committee under the Chairmanship of the Prime Minister, and comprising Ministers and technocrats and persons from the private sector is responsible for advising Cabinet on national energy policy and is required to oversee and co-ordinate the development of major energy sector projects.

Other significant developments in which this Division was integrally involved include inter alia:

- conclusion of outstanding matters with respect to the evaluation of the World Bank consultant's report on the Petroleum Review Study;

- the preparation of the Draft Energy Policy; and

- the hosting of the OLADE, Energy Information System Workshop.

Details of activities of the Division are discussed under the following headings:

- Routine Functions
- Specific Projects
- Data Management
- Training

Routine Functions

A number of areas for which the Division is responsible are by their nature routine, in the sense that these activities form an integral part of the day-to-day functions of the Division.

These areas which were addressed in 1992 are outlined below:

a) Monthly computation of the ex-refinery prices for domestic petroleum products. This is an essential aspect of the Ministry's responsibility with regard to the administration of the Petroleum Levy

and Subsidy Act. A review was also initiated on the system/methodology for the determination of ex-refinery prices.

b) Daily monitoring of international crude markets and the preparation of a weekly bulletin on market prices and trends; quarterly and annual summary reports; and forecasts of short term crude price trends. The Division also continued to prepare and compute domestic crude prices in its role of providing technical support to the Ministry of Finance Permanent Petroleum Pricing Committee. This Committee however was inactive during the year.

c) Monitoring and analysis of crude production trends and the natural gas supply and demand scenario in the domestic market. Developments relating to international crude oil production were constantly reviewed particularly with respect to its impact on prices.

d) Preparation of reports and review of investment trends in exploration, development and related activities of the domestic petroleum companies for the past year. During the first quarter and/or subsequent to the Annual Technical Meetings with the petroleum and petrochemical companies, reports were prepared on projected investment trends and operations for 1992. Mid year and end of year reviews of actual operations and investment trends vis-a-vis projected activities were also prepared.

e) Evaluation, monitoring and preparation of quarterly status reports on major energy sector projects. These projects were, in the main, the IDB funded refinery upgrading and heavy oil recovery programme, the Amoco Flambouyant natural gas field development, and the methanol plant being constructed by the Caribbean Methanol Company.

f) The role of Secretariat to the Standing Committee on Energy which was assigned to this Ministry has resided to some measure in the Energy Planning Division. As a result, the Division was responsible for preparation and compilation of all reports for meetings of the Committee and the provision of personnel with the responsibility of reporting on all proceedings and preparation of support documents.

Specific Projects

Draft Energy Policy

Arising out of the activities of the Standing Committee on Energy, the Division assisted in the preparation to final printing of the Draft Energy Policy document for Trinidad and Tobago (A Green Paper). The Division also established machinery to collate comments and prepare subsequent reports.

Unocal

With regard to the Unocal negotiations, the Division participated in the determination of the fiscal provisions in lieu of State participation. Negotiations were successfully completed by year's end and a contract was signed in January 1993.

South East Coast Consortium (SECC)

The Division was also involved in discussions on the SECC field development in which Enron, an independent US company, was assigned a 95% share of the SECC Block to develop three fields - Kiskadee, Ibis and Oilbird - in the Upper Reverse L Block offshore the East Coast of Trinidad.

Block 6

A considerable degree of analysis and review was conducted with respect to the fiscal provisions of the Block 6 Production Sharing Contract, held by BG/Texaco and in the negotiations with BG/Texaco for the development of the Dolphin gas field. These negotiations also involved the National Gas Company. The Division also participated in a Committee to make recommendations for the award of Block E. The Committee's recommendations were accepted by Cabinet.

R.W Pleasant Report

The Division participated in finalizing, with the foreign consultants R. W. Pleasant and Associates (Technical Assistance Loan [TAL 3153TR], the preparation of a report on the Petroleum Sector Review Study for the Government of Trinidad and Tobago. The scope of the Petroleum Sector Review was designed to cover all existing pertinent legislation and administrative arrangements including, inter alia:

- exploration and production licensing and production sharing contracts;
- comparative taxation systems with particular emphasis on evaluating competitiveness of the domestic fiscal regime;
- the structure and management of the natural gas industry and the role of the National Gas Company;
- issues relating to the role of the Ministry of Energy with particular reference to compensation and recruitment of professional staff.

This report was presented to the Standing Committee on Energy for its consideration.

Petroleum Taxation

The review of the petroleum tax regime was a major development during 1992. Although this responsibility is within the portfolio of the Ministry of Finance, this Division was actively involved in this review through the provision of technical support,

evaluation of fiscal provisions and through membership on the Committee. The Petroleum Taxes Act and the Petroleum Levy and Subsidy Act were amended in 1992.

NEC/NGC

Personnel from the Energy Planning Division also served on a Cabinet Appointed Committee to look into the acquisition of the National Energy Corporation of Trinidad and Tobago Limited (NEC) by the National Gas Company of Trinidad and Tobago Limited. This Committee had as its terms of reference to consider and make recommendations on:

- the procedure to be adopted for the acquisition of the NEC by the NGC;
- the value to be put on the NEC; and
- the time frame within which the transaction should be completed.

The report of the Committee was submitted to and accepted by Cabinet.

Data Management

The acquisition, verification, analysis and presentation of energy sector data have emerged as a major responsibility of the Energy Planning Division which is quite often significantly understated. The development of an efficient and effective data management/information system is therefore a critical objective of the Division. Apart from internal use (within the Ministry) which is in itself quite extensive, frequent demands are made on the Division for energy sector data to satisfy the requirements of other domestic agencies and international agencies, viz, the IMF, the World Bank and OLADE.

Trinidad and Tobago's continued membership in the Latin American Energy Organization (OLADE) provides the country with access to an extensive Energy Economic Information System (SIEE) which is based and managed locally by the Energy Planning Division. OLADE is an international public cooperation agency, which essentially promotes the integration, rational use and the defense of the energy resources of its twenty-six member countries of Latin America and the Caribbean. The data available in the SIEE is based on information provided by the Ministry responsible for Energy in each OLADE member country through the local SIEE Advisor. An officer of the Energy Planning Division serves presently as this country's SIEE Advisor. The Division assisted in the holding of the SIEE Advisors workshop in Trinidad held at the Hilton Hotel during the period September 28 to October 02, 1992.

The Division also assists the National Focal Point (Library) with data for the Caribbean Energy Information System (CEIS).

Training

Personnel from the Division were exposed to

advanced training in certain specialized fields during 1992. This included attendance at conferences, workshops, courses and seminars.

Conferences

a) Latin American Methanol Conference - May 11-13, 1992 at the Hilton Hotel, Trinidad.

b) International Fertilizers Association. Regional Fertilizer Conference for Latin America and the Caribbean - July 8-10, 1992 at the Hilton Hotel, Trinidad.

c) World Fertilizers Conference. The Fertilizer Institute - September 13-15, 1992 at Century Plaza Hotel, Los Angeles, California.

Courses/Workshop/Seminars

a) Exploration Economics and Project Evaluation. Texaco E&P Technology Department - January 24-24, 1992 at Kapok Hotel, Trinidad.

b) Parca Model Introductory User Workshop - May 25-30, 1992 at Holiday Inn Hotel, Trinidad.

c) Planning and Project Cycle Management - Eric Williams Financial Complex, Trinidad.

d) Energy Forecasting Workshop - July 13-17, 1992 - OLADE Headquarters, Quito, Ecuador.

e) Refinery Economics Seminar - Bonner & Moore - September 14-18, 1992 - Houston, Texas.

REVIEW OF SUBSIDY/SURPLUS

The Petroleum Production Levy and Subsidy Act governs the collection of levy and the payment of subsidy.

The Subsidy is computed monthly in respect of the sales of each petroleum product. The subsidy is levied on the petroleum producing companies.

Effective 1992, the Petroleum Production and Subsidy Act was amended to restrict the levy on each producing business to the lesser of 3% of gross income from the production of crude oil and the proportionate volume of production applied to the total monthly subsidy

In January 1992, excise duty on premium and regular gasoline increased by 65% and wholesale and retail prices by 30%. These increases did not significantly affect the subsidy levels.

In the period April to June 1992 the subsidy level rose significantly however due to the increase in crude prices which impacted on the prices of petroleum products. Prices of products and, therefore, the subsidy peaked

in June, and though it dropped slightly it remained relatively high until November 1992. The increase in the wholesale and retail prices of certain products in November 1992 caused a significant decrease in the subsidy level in late November/December of that year. In fact, the increase in the prices created a surplus in certain products which were previously heavily subsidised.

The subsidy/surplus for the period 1977 to 1992 is detailed at Table XI.

Table XI
Subsidy/Surplus 1977 -1992

Year	Total Subsidy ($)	Subsidy per barrel (cents)	Surplus
1977	87,341,068	104.99	-
1978	93,636,718	111.42	-
1979	178,295,170	227.36	-
1980	286,628,408	368.84	-
1981	327,286,923	469.48	-
1982	345,694,250	533.15	-
1983	155,616,925	265.83	-
1984	31,807,120	52.00	23,655,533
1985	36,187,980	56.09	23,550,359
1986	49,357,585	80.52	60,450,410
1987	32,153,573	56.85	17,584,503
1988	23,034,063	42.11	29,332,503
1989	83,617,664	153.43	778,365
1990	203,852,832	375.50	531,394
1991	149,947,487	287.20	531,611
1992	91,667,423	192.90	655,532

MICROFILM OPERATION/DATA BANK

Microfilm

By the end of 1992 an estimated total of $4,243.00 was spent on consumables and repairs. This was used in getting to a total of 10,455 well files that have been filmed and duplicated. However, approximately 25% of the 10,455 well files has been confirmed as not being fit for archiving as undetected problems associated with the equipment used resulted in off-focussed, and in some instances, non-recording on films.

A comprehensive listing of all the files that have been processed and their condition will be prepared for circulation. In addition, over the next twelve months, it is planned to introduce better quality control to ensure that the high rate of spoilt films will be reduced.

Databank

During this year the in house study of the Data Bank's reorganisation/restructuring continued. Consultations with companies, both public and private, in this environment were initiated with a view to better understand the industry and direction it was taking. A complete historical overview of the Ministry's past attempts at instituting a system to run its business was undertaken to understand how it arrived at its present position.

Financial constraints will dictate or define how close to the ideal, the prototyped version will be realized. Additionally, policies and procedures based on the prototyped design were at year's end, about 80% completed.

Preliminary studies have indicated that, ideally, the new system should involve the replacing of the 8086 and 8088 computer technology that the Ministry now uses with technology that is up-to-date. The hardware thus selected will permit upgrading to keep in step with technology by a process of replacement, mainly of the Central Processing Units. The prototyped system should be networked under a multi-user operating system. Additionally a new, more robust database engine should be purchased to complement the system. The purchase of database/network server, workstations and highend PC's consistent with the needs of the Ministry as defined by analysis of the departments, was being entertained at year's end.

INFORMATION SERVICES

Physical Facilities

The Information Services at the Port of Spain office continued to function under very cramped and sub-standard physical conditions. As the main library for the petroleum industry in the country, the collection is unique not only for its history but also for the core of current

information it provides to the staff and other users from the University, government organizations, industry personnel and interested members of the public.
While the Port of Spain Section laboured under the constraint of space and lack of shelving, additional space was obtained for the Library collection at the South Office. Approximately 100 square feet was provided there and this relieved the congestion of movement in the Library and allowed for more comfortable accommodation of the computer equipment.

Computer System

In Port of Spain for yet another year we relied on the single user computer system to perform our wide ranging activities, which include routine library work, word processing, on-line searching, electronic mail services and teleconferencing. Demand time on the computer is high and quite often operations have had to be interrupted to facilitate the various activities. With these limited facilities the library has been unable to offer its users the opportunity for individual searching of the database. A CD-Rom Drive and interface have also been requested to accommodate the SPE papers, which are now available in that format.

The computer system in the library, at the San Fernando Office although a shared facility, has greatly enhanced the library's services and allowed for more efficient management of the collection. It is hoped in the future to link the Library collections in both North and South.

Services

The collection during 1992 was increased through the acquisition of 565 books, of which 516 were donated. One thousand six hundred and fifty two items were added to the database in Port of Spain. One thousand four hundred and seventy four 1,474 periodical issues were purchased and 1,230 issues were received as gifts.

Reference and circulation services included 1,367 queries and loans, 534 books and 312 periodical loans.

The Selective Dissemination of Information Service, an additional feature of the Library program - CDS/ISIS Version 3.0 - was implemented for professional members of staff of the Ministry. It allowed us to provide the respondents with a listing of current items added to the database in their subject areas of interest.

Staff

Ms Ann Marie Seenarine, temporary Library Assistant I, resigned after approximately one year's service, to pursue higher studies at University. She was replaced by Ms. Michelle Garcia, who joined the staff in October 1992.

Training

The Librarian attended the Acuril XXII Conference held in Trinidad May 23-27, 1992 at the Trinidad Hilton. She also served on the local Organizing Committee which was responsible for planning the conference.

Our computer skills were increased in the areas of electronic mail and teleconferencing through participation in a Caribbean Computer-based Communication project, sponsored by United Nations Economic Commission for Latin America (UNECLAC) and the International Development Research Centre (IDRC). Forty participants from various Caribbean countries participated in this project which continued to June 1993.

Caribbean Energy Information System (CEIS)

As the National Focal Point for the Caribbean Energy Information System, the major activity this year was completion of the exercise on collection building for the bibliographical database PUBLIM. Through the support of the IDRC the Ministry was able to employ a student from the University on contract to assist in this exercise. Items were obtained from personnel at the University and from throughout the petroleum industry.

The annual Liaison Officers Meeting was held in Barbados during June 15-19, 1992. One of the main items on the agenda was the need for promotion and marketing of the System. Projects for 1992-93 include User Needs Surveys to be undertaken by all National Focal Points.

LEGAL SECTION

During 1992 the Section handled a large number of legal issues raised by the Ministry in its supervision of the Petroleum Sector. To this end the Section completed a number of legal opinions on a variety of subjects and was present at a large number of meetings. Additionally, the following activities were handled by the Section. However, the list is by no means exhaustive.

Legislation

The Legal Section continued to liase with the office of the Chief Parliamentary Counsel with respect to the Compressed Natural Gas Regulations. Additionally, the following Legal Orders were produced in 1992:-

(a) The objections to Applications for Petroleum Licences Order.

(b) The Petroleum Production Levy and Subsidy (Gross Margin) (LPG) (Amendment) Order 1992.

(c) The Price of Petroleum Products (Amendment) Order 1992.

Licences

Negotiations continued with British Gas/Texaco on a Production Sharing Contract over Block 6.

Negotiations with Unocal continued throughout 1992 culminating in December, 1992 when arrangements were made for signing the Licence over Block 89/3.

A Licence over the Cruse Field was applied for by Trintoc and the Section addressed itself to the preparation of the Licence. However, at the end of 1992 a number of issues were still outstanding with respect to the Licence.

Additionally, work was done on the formulation of a Petrochemical Licence and a Pipeline Licence. The Pipeline Licence was distributed for comments.

Petroleum Register

Regulation 20 of the Petroleum Regulations Chapter 62:01 states that a Petroleum Register should be maintained by the Ministry of Energy and Energy Industries. In 1992 the Legal Section research continued on past and present licence interests in an effort to bring up to date the Petroleum Register.

Other

The Legal Section was concerned with registering all Licences and Contracts

The Section was involved in a Disciplinary Tribunal at the Public Service Commission which continued throughout 1992.

In the first half of 1992 Pleasant and Associates submitted an Interim Report on the Petroleum Study for the Government of Trinidad and Tobago. The report included a suggested amendment to the Petroleum Regulations and a proposed Model Production Sharing Contract. An extensive study and commentary concerning these documents were made by the Legal Section.

GENERAL ADMINISTRATION

General Administration is responsible for providing the administrative and managerial support services to the Ministry which includes the Head Office at Level 9, Riverside Plaza and the Development Section at the JAPS Building, San Fernando.

The staff comprises:-

1 Administrative Officer V
1 Administrative Officer IV
3 Administrative Officer II (One post allocated to the San Fernando Branch)
1 Records Manager
2 Administrative Assistants
1 Clerk IV

1 Clerk III (Post allocated to San Fernando Branch)
1 Auditing Assistant
2 Clerk Stenographer III (One post allocated to the San Fernando Branch)
1 Clerk Stenographer II

The areas in which the General Administration functions are Personnel Management, Records Management, Registry, Office Management, Training, Processing of Work Permits and Retail Marketing Licences for petrol filling stations, Internal Auditing.

Personnel Management

The Personnel Division processes all aspects of personnel matters relating to a staff of 181 members. In 1992, the staff in this Unit comprised of the following officers:

1 Administrative Officer V
1 Administrative Officer II
1 Administrative Assistant (Acting)
1 Clerk IV (Acting)
2 Clerk II (Acting)
2 Clerk Typists

During the year under review, a number of appointments, promotions, transfers, separations, took effect. Details in respect of these activities are shown hereunder:-

Promotions

Posts Filled

Chief Technical Officer
Director, Energy Planning
Senior Petroleum Engineer
Chemical Engineer II

Transfers

Administrative Officer II
Systems Analyst
Records Manager (transferred on promotion as Personnel Technician)
Administrative Assistant (transferred on promotion as Administrative Officer II)

Appointments

1 Mechanical Engineer
3 Petroleum Engineer
2 Chemical Engineer
1 Mining Inspector
3 Clerks I
1 Library Assistant
1 Executive Secretary
1 Clerk Typist

Resignations

1 Chemical Engineer
3 Petroleum Engineers
1 Senior Geologist

Retirement

On Grounds of Marriage - Clerk Stenographer

Records Management

The disposition of records was again the main focus for 1992. The Records Inventory Worksheets were altered to account for gaps in the classification system.

Geological and Operations Sections made some attempt during the course of the year to sort and/or classify their records.

Office Management

As in previous years, requests made by staff for certain items of furniture and a sufficient supply of stationery could not be fulfilled because of ongoing financial limitations.

However, 4 senior Clerk Stenographers were provided with new upgraded Sharp ZX426 Typewriters. The Personnel/ Administration Section was furnished with a new medium range Canon NP2020 Photocopier. The Ministry of Energy and Energy Industries was also the recipient of a Canon A501 Fax machine donated by the National Gas Company. This replaced a similarly donated machine which has outlived its usefulness.

Training

In 1992, training of staff at all levels was vigorously pursued both locally and overseas.

On the local scene every advantage was taken of the courses offered by the agencies of National Computer Agencies, Central Training Unit and other Energy and Oil Based Industries.

In May 1990, the Minister of Energy and Energy Industries informed Cabinet of the availability of funds for training, as part of the contractual obligations of the several oil companies which were issued Exploration and Production Licences by the Ministry. Cabinet's approval was sought and obtained to have these funds placed in a separate account at the Comptroller of Accounts and administered by the Minister, in consultation with the Ministry of Finance. As a consequence, the Programme for Overseas Training continued, with a total of 11 officers being exposed to available training opportunities by way of courses, conferences, seminars, attachments.

Work Permits

A total number of 952 work permits were considered by the Ministry of Energy and Energy Industries and recommendations made to the Ministry of National Security.

LIST OF APPENDICES

APPENDIX I

SUMMARY OF EXPLORATORY AND SEMI-EXPLORATORY ACTIVITIES IN 1992

OPERATOR	WELL NAME	LOCATION (LINKS)	LAHEE EXPLORATORY CLASS	DATE SPUDDED	DATE COMPLETED	DEPTH DRILLED (METRES)	TD OF WELL (METRES)	GEOLOGICAL OBJECTIVE	RESULT/ REMARKS
MOBIL	CARAMBOLA 1	83,117 N 463,969 E	A3	91.12.15		2 673	4 520	MID GROS MORNE	SUSPENDED
TRINTOC	BARRACKPORE 576	176,240 N 399,490 E	C1	92.02.04	92.02.16	1 067	1 067	WILSON SANDS	ABANDONED - DRY
	BARRACKPORE 577	179,224 N 427,274 E	C1	92.02.19	92.02.25	575	575	WILSON SANDS	ABANDONED - DRY
	CATSHILL 133	124,488 N 331,078 E	B1	92.05.24	92.07.27	2 163	2 163	OVERTHRUST HERRERA	COMPLETED - OIL
TRINMAR	SOLDADO 713	128,516 N 042,538 E	B2b	92.01.24	92.03.14	3 129	3 129	LOWER CRUSE	COMPLETED - OIL

APPENDIX II

ANNUAL STATISTICS OF PRODUCTION, DRILLING, REFINING, EXPORTS AND IMPORTS 1992 - 1982

	ITEM	UNIT	PERCENTAGE CHANGE 1992 OVER 1991	1992	1991	1990	1989	1988
1.	CRUDE OIL	'000 BBL	-6.16	49,195	52,423	55,039	54,509	55,208
2.	CASING HEAD GASOLINE (C.H.P.S.)	'000 BBL	0	0	0	0	0	0
3.	TOTAL CRUDE OIL AND NATURAL GASOLENE (1+2)	'000 BBL	-6.16	49,195	52,423	55,039	54,509	55,208
4.	CRUDE OIL PRODUCTION - STATE OIL RIGHTS	'000 BBL	-6.48	46,871	50,120	52,401	51,756	52,377
5.	CRUDE OIL PRODUCTION - PRIVATE OIL RIGHTS	'000 BBL	+0.91	2,324	2,303	2,638	2,753	2,831
6.	TOTAL IMPORTS	'000 BBL	+15.52	18,259	15,806	7,467	2,059	4,354
7.	IMPORTS OF REFINED PRODUCTS	'000 BBL	+294.02	989	251	924	1,020	1,751
8.	IMPORTS OF CRUDE OIL FOR REFINING	'000 BBL	+9.85	16,843	15,333	6,543	1,039	2,560
9.	IMPORTS OF OTHER OILS FOR REFINING AND BLENDING	'000 BBL	+92.34	427	222	0	0	43
10.	TOTAL EXPORTS	'000 BBL	+2.75	61,807	60,150	53,481	50,073	54,489
11.	EXPORT OF CRUDE OIL	'000 BBL	-10.92	23,380	26,245	28,030	27,167	27,205
12	EXPORTS OF REFINED PRODUCTS	'000 BBL	+13.34	38,427	33,905	25,451	22,906	27,284
13.	RUNS TO STILLS	'000 BBL	+2.02	42,277	41,438	33,589	27,854	31,206
14.	DAILY REFINERY CAPACITY	BBL/DAY	0	255,000	255,000	255,000	305,000	305,000
15.	NUMBER OF WELLS SPUDDED	AS STATED	-43.27	59	104	119	86	142
16.	TOTAL NUMBER OF WELLS COMPLETED	AS STATED	-42.20	63	109	116	83	153
17.	NUMBER OF WELLS COMPLETED AS OIL WELLS	AS STATED	-42.20	52	90	91	70	110
18.	NUMBER OF WELLS ABANDONED	AS STATED	-31.25	11	16	13	13	19
19.	TOTAL DEPTH DRILLED	METRE	-49.48	77 366	153 133	153 498	136 206	177 631
20.	DEPTH DRILLED ON STATE OIL RIGHTS	METRE	-49.30	70 858	139 769	141 312	130 240	167 746
21.	DEPTH DRILLED ON PRIVATE OIL RIGHTS	METRE	-51.30	6 508	13,364	12 186	5 966	9 885
22.	AVERAGE DEPTH OF COMPLETED WELLS (16)	METRE	-13.41	1 453	1 678	1,450	1 635	1 333
23.	AVERAGE NUMBER OF WELLS PRODUCING	AS STATED	+2.16	3,306	3,236	3,172	3,199	3,252
24.	AVERAGE NO. OF WELLS PRODUCED BY FLOWING	AS STATED	-9.51	333	368	371	364	331
25.	AVERAGE NO. OF WELLS PRODUCED BY ARTIFICIAL LIFT	AS STATED	+3.66	2,973	2,868	2,801	2,835	2,921
26.	AVERAGE DAILY PRODUCTION PER PRODUCING WELL	BARREL	-8.33	40.7	44.4	47.5	46.7	46.4
27.	AVERAGE DAILY PRODUCTION PER FLOWING WELL	BARREL	-2.41	101.2	103.7	129.9	106.0	115.2
28.	AVERAGE DAILY PRODUCTION PER ARTIFICIAL LIFT WELL	BARREL	-7.88	33.9	36.8	36.6	39.1	38.6
29.	TOTAL VALUE OF DOMESTIC EXPORTS *	'000$	-6.35	7,811,404	8,340,929	8,636,852	6,573,802	5,320,886
30.	TOTAL VALUE OF PETROLEUM PRODUCTS (ITEM 29) *	'000$	+6.64	2,979,658	2,794,214	2,681,814	2,133,054	3,252,182
31.	TOTAL VALUE OF ASPHALT PRODUCTS *	'000$	-52.52	15,900	33,491	25,061	36,794	24,350
32.	TOTAL NATURAL GAS PRODUCED	MILLION M^3	+0.14	7 414	7 404	6 651	7 233	7 438
33.	USED AS FUEL	MILLION M^3	+6.51	4 301	4 038	3 726	3 744	3 515
34.	REPLACED IN FORMATION	MILLION M^3	0	0	0	0	0	0
35.	LOSSES, NOT COLLECTED	MILLION M^3	-20.29	165	207	206	254	246

* Source : Central Statistical Office from The Annual Overseas Trade Part A

Continued

APPENDIX II

ANNUAL STATISTICS OF PRODUCTION, DRILLING, REFINING, EXPORTS AND IMPORTS 1992 - 1982

ITEM	UNIT	1987	1986	1985	1984	1983	1982
1. CRUDE OIL	'000 BBL	56,641	61,640	64,259	62,041	58,344	64,618
2. CASING HEAD GASOLINE (C.H.P.S.)	'000 BBL	1	25	23	29	34	28
3. TOTAL CRUDE OIL AND NATURAL GASOLENE (1+2)	'000 BBL	56,642	61,665	64,282	62,071	58,378	64,646
4. CRUDE OIL PRODUCTION - STATE OIL RIGHTS	'000 BBL	54,098	59,176	61,845	59,734	55,988	62,215
5. CRUDE OIL PRODUCTION - PRIVATE OIL RIGHTS	'000 BBL	2,543	2,464	2,414	2,308	2,356	2,403
6. TOTAL IMPORTS	'000 BBL	5,527	7,797	3,852	6,774	8,133	27,046
7. IMPORTS OF REFINED PRODUCTS	'000 BBL	2,115	5,742	3,609	6,428	8,133	3,654
8. IMPORTS OF CRUDE OIL FOR REFINING	'000 BBL	3,412	1,560	243	346	0	23,392
9. IMPORTS OF OTHER OILS FOR REFINING AND BLENDING	'000 BBL	36	495	0	0	0	0
10. TOTAL EXPORTS	'000 BBL	55,749	58,175	60,345	61,294	57,715	87,667
11. EXPORT OF CRUDE OIL	'000 BBL	28,370	32,867	35,358	32,518	31,065	37,462
12. EXPORTS OF REFINED PRODUCTS	'000 BBL	27,379	25,308	24,987	28,776	26,650	50,205
13. RUNS TO STILLS	'000 BBL	31,472	29,936	29,673	28,147	27,178	55,105
14. DAILY REFINERY CAPACITY	BBL/DAY	305,000	305,000	305,000	305,000	305,000	305,000
15. NUMBER OF WELLS SPUDDED	AS STATED	145	176	182	198	174	232
16. TOTAL NUMBER OF WELLS COMPLETED	AS STATED	160	169	197	213	179	215
17. NUMBER OF DRILLING WELLS COMPLETED AS OIL WELLS	AS STATED	111	133	156	165	162	169
18. NUMBER OF DRILLING WELLS ABANDONED	AS STATED	15	18	14	17	13	26
19. TOTAL DEPTH DRILLED (ALL WELLS)	METRE	189 735	222 294	199 402	206 830	183 797	252 936
20. DEPTH DRILLED ON STATE OIL RIGHTS	METRE	184 620	219 246	192 149	200 438	163 539	220 747
21. DEPTH DRILLED ON PRIVATE OIL RIGHTS	METRE	5 115	3 048	7 253	6 392	20 258	32 189
22. AVERAGE DEPTH OF COMPLETED WELLS (16)	METRE	1 295	1 395	1 100	1 153	1 051	1 083
23. AVERAGE NUMBER OF WELLS PRODUCING	AS STATED	3,256	3,209	3,167	3,142	3 140	3 372
24. AVERAGE NO. OF WELLS PRODUCED BY FLOWING	AS STATED	320	352	325	319	344	392
25. AVERAGE NO. OF WELLS PRODUCED BY ARTIFICIAL LIFT	AS STATED	2,936	2,857	2,842	2,823	2,796	2,980
26. AVERAGE DAILY PRODUCTION PER PRODUCING WELL	BARREL	47.7	52.6	55.6	54.1	50.9	52.1
27. AVERAGE DAILY PRODUCTION PER FLOWING WELL	BARREL	114.5	139.7	139.7	139.6	121.4	149.1
28. AVERAGE DAILY PRODUCTION PER ARTIFICIAL LIFT WELL	BARREL	40.4	41.9	46.0	44.0	42.1	39.6
29. TOTAL VALUE OF DOMESTIC EXPORTS *	'000$	5,178,962	4,854,712	5,120,719	5,044,400	5,431,684	7,118,368
30. TOTAL VALUE OF PETROLEUM PRODUCTS (ITEM 29) *	'000$	3,748,392	3,528,661	4,191,329	4,168,910	4,692,967	6,491,617
31. TOTAL VALUE OF ASPHALT PRODUCTS *	'000$	22,665	21,866	15,925	11,130	6,737	6,782
32. TOTAL NATURAL GAS PRODUCED	MILLION M^3	7 512	7 585	7 412	7 228	6 318	5 841
33. USED AS FUEL	MILLION M^3	3 311	3 190	2 957	2 552	3 102	2 842
34. REPLACED IN FORMATION	MILLION M^3	0	0	0	0	0	0
35. LOSSES, NOT COLLECTED	MILLION M^3	187	149	261	249	214	297

* Source : Central Statistical Office

APPENDIX III

SUMMARY OF DEVELOPMENT DRILLING IN TRINIDAD AND TOBAGO - 1992

FIELD, AREA OR DISTRICT	NUMBER OF OIL PRODUCERS COMPLETED	NUMBER OF ABANDONED WELLS	TOTAL COMPLETION	TOTAL DEPTH DRILLED IN METRES	NUMBER OF RIGS ACTIVELY DRILLING DEVELOPMENT WELLS ON 31st. DECEMBER, 1992
1	1	0	1	1 524	0
2	9	1	10	10 136	0
4	22	3	25	16 936	0
5	0	1	1	945	0
8	8	1	9	10 172	0
10	1	0	1	671	0
11	9	1	10	27 375	0
TOTAL	50	7	57	67 759	0

APPENDIX IIIA

KEY TO AREA - NUMBER ON APPENDIX III

AREA NUMBER	DESCRIPTION
1	Soldado, North Marine, Couva Marine, Manicou, (Gulf of Paria Block 1)
2	Pt. Ligoure, F.O.S., Area IV and Guapo, Point Fortin West and Central, Parrylands Cruse, Guapo, Boodoosingh
3	Brighton (Land and Marine), Vessigny, Merrimac
4	Palo Seco, Los Bajos, Erin, Central Los Bajos, Mackenzie, South Erin
5	Forest Reserve, Fyzabad, Point Fortin East, New Dome, San Francique, Apex Quarry
6	Quarry, Coora, Quinam, Morne Diablo
7	Oropouche
8	Penal, Barrackpore, Wilson, Siparia
9	Moruga North and West, Rock Dome, Inniss, Trinity, Catshill, Balata, Bovallius
10	Guayaguayare, Moruga East, Maloney
11	Galeota, Teak, Samaan, Poui, Cassia, Dolphin (Block 6), Diamond Prospect, East Coast, Reverse 'L' East, Reverse 'L' West, Mora, Pelican, Arima South East Galeota, North West Teak, OPC, West Samaan,West East Queen Beach Pamberi
12	South Marine (South Coast), Carambola
13	Tabaquite, Point-a-Pierre, Springvale
14	Icacos, South West Peninsula

APPENDIX IV
MONTHLY ANALYSIS OF DRILLING AND WORKOVER ACTIVITY - 1992
(Depth drilled in metres)

MONTH	DRILLING WELLS COMPLETED														OLD WELLS	
	NEW WELLS STARTED	OIL & GAS PRODUCERS		INJECTION WELLS		ABANDONED						COMPLETED OTHER		TOTAL WELLS	TOTAL AGGR DEPTH	AGGR DEPTH PER WELL	RE-COMPLETED	ABANDONED
						AFTER TESTING		DRY HOLES		TECHNICAL CAUSES								
		NO.	AGGR DEPTH	NO.	AGGR DEPTH	NO.	AGGR DEPTH	NO.	AGGR DEPTH	NO.	AGGR DEPTH	NO.	AGGR DEPTH					
JANUARY	4	2	3 024	0	0	0	0	1	2 152	1	1 690	0	0	4	6 866	1 717	17	0
FEBRUARY	12	7	15 177	0	0	0	0	2	1 641	0	0	0	0	9	16 818	1 869	4	0
MARCH	13	9	12 821	0	0	0	0	1	503	0	0	0	0	10	13 324	1 332	6	1
APRIL	9	8	3 912	0	0	0	0	1	570	1	822	0	0	10	5 304	530	10	0
MAY	8	9	12 323	0	0	0	0	1	671	0	0	0	0	10	12 994	1 299	7	0
JUNE	5	7	17 222	0	0	0	0	1	4 404	0	0	0	0	8	21 626	2 703	11	0
JULY	2	6	6 130	0	0	0	0	0	0	0	0	0	0	6	6 130	1 022	4	0
AUGUST	3	2	3 601	0	0	0	0	0	0	0	0	0	0	2	3 601	1 801	3	0
SEPTEMBER	0	0	0	0	0	0	0	0	0	1	414	0	0	1	414	414	8	0
OCTOBER	1	1	569	0	0	0	0	0	0	0	0	0	0	1	569	569	11	0
NOVEMBER	0	1	2 949	0	0	0	0	0	0	0	0	0	0	1	2 949	2 949	6	0
DECEMBER	2	0	0	0	0	0	0	1	945	0	0	0	0	1	945	945	2	0
TOTAL 1992	59	52	77 728	0	0	0	0	8	10 886	3	2 926	0	0	63	91 540	1 453	89	1
TOTAL 1991	104	90	143 962	1	701	1	2 301	11	17 442	4	12 489	2	5 965	109	182 860	1 678	161	1

APPENDIX V
MONTHLY ANALYSIS OF LAND AND MARINE DEPTH DRILLED - 1992
(metres)

MONTH	STATE LAND	PRIVATE LAND	SUB-TOTAL LAND	MARINE	SUB-TOTAL STATE	TOTAL	RIG MONTHS	DAILY AVG. DEPTH	DAILY AVG. DEPTH/ RIG	MARINE % OF TOTAL DEPTH
JANUARY	3 431	0	3 431	7 338	10 769	10 769	6.97	347	49.8	68.1
FEBRUARY	5 409	0	5 409	5 310	10 719	10 719	6.56	370	56.3	49.5
MARCH	10 136	0	10 136	3 228	13 364	13 364	5.87	431	73.4	24.2
APRIL	8 355	0	8 355	1 451	9 806	9 806	5.80	327	56.4	14.8
MAY	4 790	2 301	7 091	5 223	10 013	12 314	4.87	397	81.6	42.4
JUNE	3 466	3 246	6 712	1 997	5 463	8 709	5.53	290	52.5	22.9
JULY	0	16	16	3 158	3 158	3 174	2.19	102	46.8	99.5
AUGUST	40	0	40	1 937	1 977	1 977	2.87	64	22.2	98.0
SEPTEMBER	530	0	530	2 307	2 837	2 837	2.53	95	37.4	81.3
OCTOBER	0	0	0	1 110	1 110	1 110	1.23	36	29.1	100.0
NOVEMBER	0	0	0	219	219	219	1.73	7	4.2	100.0
DECEMBER	0	945	945	1 423	1 422	2 368	2.38	76	32.1	60.1
TOTAL	36 157	6 508	42 665	34 701	70 857	77 366	48.53	211	52.3	44.9

APPENDIX VI
CRUDE OIL PRODUCTION BY FIELDS, AREAS OR DISTRICTS - 1992

COMPANY, FIELDS AREAS OR DISTRICTS	DISCOVERY YEAR	TOTAL WELLS COMPLETED	ANNUAL PRODUCTION		CUMULATIVE PRODUCTION THROUGH DECEMBER, 1992
			1992	1991	
			BARRELS	BARRELS	' 000 BARRELS
TRINIDAD & TOBAGO OIL CO. LTD.					
BALATA EAST AND WEST	1952	75	78,006	88,689	3,730
CATSHILL	1950	135	136,300	134,317	23,658
INNISS	1956	41	12,081	13,782	6,311
ROCK DOME	1962	3	0	0	16
PENAL	1936	289	271,487	297,317	63,639
NEW DOME	1928	31	6,156	2,704	3,156
GRAND RAVINE	1929	168	162,643	185,402	27,616
SAN FRANCIQUE	1929	27	0	0	5,983
AREA IV AND GUAPO	1963	192	528,014	496,322	41,078
PARRYLANDS 1-5	1913	511	353,883	382,877	42,429
POINT FORTIN CENTRAL	1916	260	545,260	433,738	22,727
POINT FORTIN WEST	1907	319	145,552	146,561	21,206
LOS BAJOS	1918	29	0	0	546
ERIN	1963	4	0	0	710
MAHAICA	1954	6	0	0	0
GUAYAGUAYARE	1902	700	543,948	547,320	89,912
TRINITY	1956	95	89,431	98,472	15,593
BARRACKPORE	1911	406	825,018	935,127	36,308
OROPOUCHE	1944	128	66,438	48,829	6,928
MORNE DIABLO	1926		1,866	2,879	330
FOREST RESERVE	1913	2,062	1,429,958	1,313,846	265,792
PALO SECO	1929	943	514,547	529,697	96,053
BRIGHTON	1903	623	310,633	307,523	71,595
PT. LIGOURE	1937	15	114,457	136,473	2,995
ERIN	1963	24	10,612	9,482	2,380
COUVA MARINE	1963	6	0	0	301
CRUSE	1913	150	38,533	16,916	26,009
WILSON	1936	82	47,679	55,413	20,255
BALATA CENTRAL	1949	6	0	0	371
MAYARO		9	0	0	0
SIPARIA			3,461	3,718	
LEASE OPERATORS			117,881	36,217	154
TOTAL		7,339	6,353,844	6,223,621	897,781

continued

APPENDIX VI

CRUDE OIL PRODUCTION BY FIELDS, AREAS OR DISTRICTS - 1992

COMPANY, FIELDS AREAS OR DISTRICTS	DISCOVERY YEAR	TOTAL WELLS COMPLETED	ANNUAL PRODUCTION		CUMULATIVE PRODUCTION THROUGH DECEMBER, 1992
			1992	1991	
			BARRELS	BARRELS	' 000 BARRELS
TRINIDAD & TOBAGO PETROLEUM CO.LTD.					
FYZABAD/APEX QUARRY	1920-1938	1,049	765,334	828,667	175,634
GUAPO/BOODOOSINGH	1922	682	854,638	779,696	50,438
MORUGA EAST	1953	80	19,684	6,380	2,768
MORUGA NORTH	1956	23	7,021	9,612	1,080
MORUGA WEST	1957	130	41,154	47,117	9,385
COORA/QUARRY	1936	744	540,266	600,332	94,284
PALO SECO/ERIN/MC KENZIE	1926	1,657	2,628,150	2,792,856	131,167
NORTH MARINE	1956	19	0	0	1,269
GALEOTA	1963	105	670,566	697,286	18,988
CENTRAL LOS BAJOS	1973	278	762,460	779,228	12,767
OROPOUCHE	1975	3	0		274
BARRACKPORE	1977	10	0	0	129
MORNE DIABLO/QUINAM	1926	103	16,886	35,543	7,472
TABAQUITE	1911	238	33,749	56,484	1,930
MALONEY	1902	1	0	580	2
GOUDRON	1902	2	11,351	16,191	38
TOTAL		5,124	6,351,259	6,649,972	507,625
PREMIER CONSOLIDATED OILFIELDS LIMITED					
SIPARIA	1957	5	3,462	3,721	912
SAN FRANCIQUE	1929	116	167,930	169,477	4,415
FYZABAD/ROODAL	1918	281	79,989	87,134	13,767
PALO SECO	1915	83	4,895	5,655	1,676
BARRACKPORE	1970	9	31,479	32,872	484
ICACOS	1955	11	4,924	5,868	516
DEFUNCT FIELDS	1954	19	0	0	323
TOTAL		524	292,679	304,727	22,093

continued

APPENDIX VI

CRUDE OIL PRODUCTION BY FIELDS, AREAS OR DISTRICTS - 1992

COMPANY, FIELDS AREAS OR DISTRICTS	DISCOVERY YEAR	TOTAL WELLS COMPLETED	ANNUAL PRODUCTION		CUMULATIVE PRODUCTION THROUGH DECEMBER, 1992
			1992	1991	
			BARRELS	BARRELS	' 000 BARRELS
TRINIDAD NORTHERN AREAS					
FOS/FT	1954	35	90,346	79,471	7,341
SOLDADO	1955	736	11,617,269	12,304,708	526,410
TOTAL		771	11,707,615	12,384,179	533,841
AMOCO TRINIDAD OIL CO. LTD.					
TEAK	1969	127	11,798,440	13,057,983	290,441
SAMAAN	1971	70	4,194,053	4,335,817	198,027
POUI	1974	71	6,697,380	7,045,425	185,127
CASSIA	1973	10	809,005	1,039,400	17,345
MORA	1982	6	53,665	48,710	924
TOTAL		284	23,552,543	25,527,335	691,864
TRINTOMAR					
PELICAN		2	936,939	1,332,922	3,180
TOTAL		2	936,939	1,332,922	3,180
GRAND TOTAL		14,053	49,194,879	52,422,756	2,656,383

APPENDIX VII
CRUDE OIL PRODUCTION BY MONTHS AND METHODS - 1992
(barrels)

APPENDIX VII
CRUDE OIL PRODUCTION BY MONTHS AND METHODS - 1992
(barrels)

MONTH	FLOWING			GAS LIFT			PUMPING		
	NO.OF WELLS	PRODUCTION	DAILY AV. PER WELL	NO.OF WELLS	PRODUCTION	DAILY AV. PER WELL	NO.OF WELLS	PRODUCTION	DAILY AV. PER WELL
JANUARY	336	1,093,074	104.9	652	2,335,379	115.5	2,273	1,001,085	14.2
FEBRUARY	343	1,025,374	103.1	640	2,169,616	116.9	2,289	920,934	13.9
MARCH	346	1,080,625	100.7	642	2,333,626	117.3	2,328	991,720	13.7
APRIL	338	1,054,683	104.0	632	2,228,775	117.6	2,286	913,624	13.3
MAY	334	1,089,605	105.2	640	2,203,175	111.0	2,325	960,751	13.3
JUNE	346	1,138,130	109.6	620	1,993,195	107.2	2,297	915,433	13.3
JULY	346	1,188,703	110.8	628	1,997,354	102.6	2,303	943,112	13.2
AUGUST	326	982,126	97.2	624	2,009,878	103.9	2,342	923,338	12.7
SEPTEMBER	316	899,465	94.9	627	2,098,890	111.6	2,335	915,340	13.1
OCTOBER	308	935,065	97.9	593	2,115,024	115.1	2,334	918,217	12.7
NOVEMBER	341	912,874	89.2	621	2,038,745	109.4	2,383	901,163	12.6
DECEMBER	313	930,085	95.9	607	2,070,830	110.1	2,354	932,751	12.8
TOTAL 1992		12,329,809			25,594,487			11,237,468	
AVERAGE 1992	333	33,688	101.2	627	69,930	111.5	2,321	30,703	13.2

Continued

APPENDIX VII
CRUDE OIL PRODUCTION BY MONTHS AND METHODS - 1992
(barrels)

MONTH	OTHER METHODS			PLUNGER LIFT			TOTAL NO. OF	TOTAL OIL PRODUCTION	DAILY AVG. B.O.P.D. PER		SALT WATER	
	NO.OF WELLS	PROD'N	DAILY AV. PER WELL	NO.OF WELLS	PROD'N	DAILY AV. PER WELL	WELLS PRODUCING		PRODUCING WELL		PRODUCTION	% OF TOTAL FLUID
JANUARY	28	1,056	1.2	1	1,535	49.5	3,290	4,432,129	43.5	142,972	5,343,778	54.7
FEBRUARY	17	579	1.2	2	2,869	49.5	3,291	4,119,372	44.7	142,047	5,071,584	55.2
MARCH	27	886	1.1	2	3,760	60.6	3,345	4,410,617	42.5	142,278	5,369,878	54.9
APRIL	24	881	1.2	2	3,236	53.9	3,282	4,201,199	42.7	140,040	5,147,638	55.1
MAY	29	965	1.1	2	3,236	52.2	3,330	4,257,732	41.2	137,346	5,338,775	55.6
JUNE	22	876	1.3	2	2,365	39.4	3,287	4,050,137	41.1	135,005	4,791,664	54.2
JULY	24	850	1.1	1	1,662	53.6	3,302	4,131,681	40.4	133,280	5,152,228	55.5
AUGUST	23	878	1.2	1	1,612	52.0	3,316	3,917,832	38.1	126,382	5,036,322	56.2
SEPTEMBER	26	1,131	1.5	1	1,382	46.1	3,305	3,916,602	39.5	130,553	4,847,426	55.3
OCTOBER	22	1,059	1.6	0	0	0.0	3,257	3,969,365	39.3	128,044	5,183,340	56.6
NOVEMBER	22	817	1.2	0	0	0.0	3,367	3,853,599	38.2	128,453	5,265,830	57.7
DECEMBER	24	948	1.3	0	0	0.0	3,298	3,934,614	38.5	126,923	5,702,307	59.2
TOTAL 1992		10,926			21,657			49,194,879			62,250,770	
AVERAGE 1992	24	30	1.2	2	59	29.6	3,306	134,412	40.7	134,412	170,084	55.9

APPENDIX VIII
ANALYSIS OF CRUDE OIL PRODUCTION BY OPERATING COMPANIES - 1992
(barrels)

COMPANY	FLOWING			GAS LIFTING			PUMPING		
	AV. NO. OF WELLS	PRODUCTION	DAILY AV. PER WELL	AV. NO. OF WELLS	PRODUCTION	DAILY AV. PER WELL	AV. NO. OF WELLS	PRODUCTION	DAILY AV. PER WELL
AMOCO TRINIDAD OIL COMPANY LTD.	50	6,934,259	378.9	106	16,618,284	428.4	0	0	0.0
PREMIER CONSOLIDATED OILFIELDS LTD.	3	36,978	33.7	0	0	0.0	85	223,118	7.2
TRINIDAD NORTHERN AREAS	69	2,587,934	102.5	258	7,530,828	79.8	52	1,588,853	83.5
TRINIDAD AND TOBAGO OIL COMPANY LTD.	102	1,355,133	36.3	261	1,443,970	15.1	921	3,554,741	10.5
TRINIDAD AND TOBAGO PETROLEUM COMPANY LTD.	104	478,700	12.6	2	1,412	1.9	1,262	5,871,147	12.7
TRINTOMAR	5	936,939	0	0	0	0.0	0	0	0.0
TOTAL 1992	333	12,329,943	101.2	627	25,594,494	111.5	2,320	11,237,859	13.2
TOTAL 1991	368	13,927,424	103.7	614	26,983,120	120.4	2,229	11,479,303	14.1

Continued

APPENDIX V111

ANALYSIS OF CRUDE OIL PRODUCTION BY OPERATING COMPANIES - 1992

(barrels)

COMPANY	OTHER			AV. NO. OF WELLS PRODUCED	TOTAL OIL PRODUCED	DAILY AV. PER WELL	COMPANY'S PROD'N AS A % OF TOTAL PROD'N	SALT WATER	
	AV. NO. OF WELLS	PROD'N	DAILY AV. PER WELL					PRODUCTION	% OF TOTAL FLUID
AMOCO TRINIDAD OIL COMPANY LTD.	0	0	0	156	23,552,543	412.5	47.9	35,390,192	60.0
PREMIER CONSOLIDATED OILFIELDS LTD.	26	32,583	3	114	292,679	7.0	0.6	180,154	38.1
TRINIDAD NORTHERN AREAS	0	0	0	379	11,707,615	84.4	23.8	4,973,943	29.8
TRINIDAD AND TOBAGO OIL COMPANY LTD.	0	0	0	1,284	6,353,844	13.5	12.9	6,055,970	48.8
TRINIDAD AND TOBAGO PETROLEUM COMPANY LTD.	0	0	0	1,368	6,351,259	12.7	12.9	12,554,377	66.4
TRINTOMAR	0	0	0	5	936,939	512.0	1.8	3,096,134	76.8
TOTAL 1992	26	32,583	3.4	3,306	49,194,879	40.7	100.0	62,250,770	55.9
TOTAL 1991	26	32,909	3.5	3,237	52,422,756	44.4	100.0	56,395,422	51.8

APPENDIX IX

TOTAL AND DAILY AVERAGE CRUDE OIL PRODUCTION BY MONTHS FOR ALL COMPANIES - 1992

(Production in barrels)

MONTH	AMOCO TRINIDAD OIL CO. LTD.		PREMIER CONSOLIDATED OILFIELDS LTD.		TRINIDAD NORTHERN AREAS		TRINIDAD & TOBAGO OIL CO. LTD.		TRINIDAD & TOBAGO PETROLEUM CO. LTD.	
	PRODUCTION	B.O.P.D	PRODUCTION	B.O.P.D	PRODUCTION	B.O.P.D	PRODUCTION	B.O.P.D	PRODUCTION	B.O.P.D
JANUARY	2,200,987	71,000	25,033	808	1,050,398	33,884	528,805	17,058	573,823	18,510
FEBRUARY	2,006,610	69,193	23,634	815	988,698	34,093	512,878	17,685	523,872	18,065
MARCH	2,150,496	69,371	25,923	836	1,038,641	33,505	548,431	17,691	566,256	18,266
APRIL	2,037,801	67,927	24,707	824	1,003,575	33,453	531,596	17,720	523,333	17,444
MAY	2,024,832	65,317	24,818	801	1,029,238	33,201	540,211	17,426	549,936	17,740
JUNE	1,905,654	63,522	22,211	740	978,248	32,608	526,722	17,557	532,527	17,751
JULY	1,955,589	63,084	21,630	698	999,565	32,244	534,176	17,231	533,965	17,225
AUGUST	1,880,246	60,653	24,512	791	863,970	27,870	528,680	17,054	531,943	17,159
SEPTEMBER	1,825,327	60,844	24,887	830	939,926	31,331	528,263	17,609	510,125	17,004
OCTOBER	1,888,718	60,926	25,216	813	946,067	30,518	522,319	16,849	509,353	16,431
NOVEMBER	1,823,286	60,776	25,504	850	929,663	30,989	515,284	17,176	488,972	16,299
DECEMBER	1,852,997	59,774	24,604	794	939,626	30,311	536,479	17,306	507,154	16,360
TOTAL 1992	23,552,543	64,351	292,679	800	11,707,615	31,988	6,353,844	17,360	6,351,259	17,353
TOTAL 1991	25,527,335	69,938	304,727	835	12,384,179	33,929	6,223,621	17,051	6,649,972	18,219

APPENDIX X
LAND AND MARINE CRUDE OIL PRODUCTION - 1992
(barrels)

MONTH	MARINE						TOTAL MARINE	DEVIATED FROM SHORE				LAND
	TNA: SOLDADO	TRINTOC: A.B.M.	TRINTOC: PT. LIG	TRINTOPEC: GALEOTA	AMOCO	TRINTOMAR		TNA: F.O.S.	TRINTOC: A.S.	TRINTOC: A.L.S	TRINTOPEC: GUAPO	
JANUARY	1,042,974	15,475	1,694	53,572	2,200,987	53,083	3,367,785	7,424	4,904	9,242	2,170	1,040,604
FEBRUARY	981,618	12,911	1,450	53,080	2,006,610	63,680	3,119,349	7,080	8,576	8,500	1,512	974,355
MARCH	1,030,263	13,947	1,371	57,346	2,150,496	80,870	3,334,293	8,378	6,638	8,762	1,624	1,050,922
APRIL	994,332	15,062	1,259	53,466	2,037,801	80,187	3,182,107	9,243	5,962	8,317	1,841	993,729
MAY	1,020,340	11,710	1,221	58,135	2,024,832	88,697	3,204,935	8,898	9,668	8,529	1,610	1,024,092
JUNE	971,316	14,085	1,119	54,583	1,905,654	84,775	3,031,532	6,932	6,976	8,093	1,224	995,380
JULY	992,575	15,011	1,141	58,674	1,955,589	86,756	3,109,746	6,990	6,969	8,252	1,484	998,240
AUGUST	857,661	12,507	1,073	58,823	1,880,246	88,481	2,898,791	6,309	8,573	8,426	2,490	993,243
SEPTEMBER	933,190	13,767	1,006	55,519	1,825,327	88,074	2,916,883	6,736	6,453	8,080	1,702	976,748
OCTOBER	938,876	12,799	928	56,666	1,888,718	77,692	2,975,679	7,191	9,421	8,428	1,111	967,535
NOVEMBER	922,449	13,441	782	52,957	1,823,286	70,890	2,883,805	7,214	7,511	8,180	1,329	945,560
DECEMBER	931,675	12,644	635	57,745	1,852,997	73,754	2,929,450	7,951	6,824	7,969	1,260	981,160
TOTAL	11,617,269	163,359	13,679	670,566	23,552,543	936,939	36,954,355	90,346	88,475	100,778	19,357	11,941,568

APPENDIX XI
AVERAGE NO. OF PRODUCING WELLS LAND AND MARINE - 1992

MONTH	MARINE						TOTAL MARINE	DEVIATED FROM SHORE				LAND
	TNA: SOLDADO	TRINTOC: A.B.M.	TRINTOC: PT. LIG	TRINTOPEC: GALEOTA	AMOCO	TRINTOMAR		TNA: F.O.S.	TRINTOC: A.S.	TRINTOC: A.L.S	TRINTOPEC: GUAPO	
JANUARY	396	26	1	37	156	4	615	12	20	1	10	2,627
FEBRUARY	386	26	1	38	156	5	606	14	15	1	9	2,640
MARCH	384	28	1	40	159	5	611	13	25	1	10	2,679
APRIL	373	27	1	36	157	5	593	13	26	1	8	2,635
MAY	369	30	1	36	155	6	590	13	25	1	8	2,686
JUNE	367	28	1	37	154	5	586	13	26	1	8	2,647
JULY	372	30	1	37	154	5	593	14	26	2	9	2,652
AUGUST	355	27	1	37	155	5	574	14	25	2	10	2,685
SEPTEMBER	356	27	1	37	157	5	577	14	28	2	9	2,668
OCTOBER	353	22	1	37	158	5	570	14	11	2	9	2,645
NOVEMBER	348	33	1	37	158	5	576	15	25	1	8	2,736
DECEMBER	343	23	1	37	156	5	559	14	27	1	8	2,683
AVERAGE	367	27	1	37	156	5	588	14	23	1	9	2,665

APPENDIX XII
CRUDE OIL PRODUCTION BY LEASE - 1992
(barrels)

MONTH	STATE LEASE			PRIVATE LEASE		
	NO.OF WELLS	PRODUCTION	DAILY AV. PER WELL	NO.OF WELLS	PRODUCTION	DAILY AV. PER WELL
JANUARY	2,691	4,227,412	50.7	599	204,717	11.0
FEBRUARY	2,698	3,934,627	50.3	593	184,745	10.7
MARCH	2,733	4,206,527	49.7	612	204,090	10.8
APRIL	2,698	4,009,649	49.5	584	191,550	10.9
MAY	2,729	4,067,768	48.1	601	189,964	10.2
JUNE	2,710	3,871,507	47.6	577	178,630	10.3
JULY	2,708	3,955,475	47.1	594	176,206	9.6
AUGUST	2,708	3,731,340	44.4	608	186,492	9.9
SEPTEMBER	2,690	3,729,516	46.2	615	187,086	10.1
OCTOBER	2,655	3,780,097	45.9	602	189,268	10.1
NOVEMBER	2,762	3,669,612	44.3	605	183,987	10.1
DECEMBER	2,535	3,687,296	46.9	763	247,318	10.5
TOTAL 1992		46,870,826			2,324,053	
AVERAGE 1992	2,693	128,062	47.6	613	6,350	10.4

APPENDIX XIII
CRUDE OIL PRODUCTION BY COMPANY LEASE - 1992
(barrels)

COMPANY	STATE LEASE		PRIVATE LEASE	
	PRODUCTION	% OF TOTAL PRODUCTION	PRODUCTION	% OF TOTAL PRODUCTION
AMOCO TRINIDAD OIL COMPANY LIMITED	23,552,543	100.0	0	0
PREMIER CONSOLIDATED OILFIELDS LIMITED	46,515	15.9	246,164	84.1
TRINIDAD NORTHERN AREAS	936,939	100.0	0	0
TRINIDAD AND TOBAGO OIL COMPANY LIMITED	5,493,929	86.5	859,915	13.5
TRINIDAD AND TOBAGO PETROLEUM COMPANY LIMITED	5,133,285	80.8	1,217,974	19.2
TRINTOMAR	11,707,615	100.0	0	0
TOTAL 1992	46,870,826	95.3	2,324,053	4.7
TOTAL 1991	50,120,304	95.6	2,302,452	4.4

APPENDIX XIV
SUMMARY OF FLUID INJECTION IN TRINIDAD AND TOBAGO 1988 - 1992

NO.OF PROJECTS IN OPERATION AT END OF YEAR				INJECTION VOLUMES			OIL PRODUCED BY WELLS UNDER PROJECT INFLUENCE				OIL EXPRESSED AS A PERCENTAGE OF COUNTRY'S TOTAL PRODUCTION
YEAR	WATER	STEAM	CARBON DIOXIDE	CARBON DIOXIDE (Mcf/d)	WATER & OTHER FLUIDS (bwpd)	STEAM (bspd)	WATER INJECTION PROJECTS (bopd)	THERMAL RECOVERY PROJECTS (bopd)	CARBON DIOXIDE PROJECTS (bopd)	ALL PROJECTS (bopd)	
1988	23	15	3	0	45,393	59,379	11,313	13,523	141	24,977	16.5
1989	22	16	4	1,271	31,074	54,991	10,931	11,902	88	22,921	15.3
1990	21	16	5	4,389	41,188	54,544	14,420	11,491	188	26,099	17.3
1991	18	16	5	3,562	24,608	42,926	11,898	10,361	237	22,496	15.7
1992	16	15	5	7,509	15,667	40,528	9,273	9,536	277	19,086	13.9

APPENDIX XV
SECONDARY AND ENHANCED OIL RECOVERY OPERATIONS - 1992

WATER INJECTION

COMPANY	ACTIVE PROJECTS	WATER INJECTED (bwpd)	OIL PRODUCED (bopd)	WATER PRODUCED (bwpd)	GAS PRODUCED (Mcf/d)	WATER CUT %
AMOCO	2	8,837	7,235	3,412	7,246	32.0
TTPCL	5	2,092	677	360	519	34.7
TRINTOC	9	4,738	1,361	2,725	2,067	66.7
ALL COS	16	15,667	9,273	6,497	9,832	41.2

STEAM INJECTION

COMPANY	ACTIVE PROJECTS	STEAM INJECTED (bspd)	OIL PRODUCED (bopd)	WATER PRODUCED (bwpd)	OIL/STEAM RATIO
TTPCL	6	31,011	7,788	28,638	0.25
TRINTOC	8	8,815	1,658	7,580	0.19
PCOL	1	702	90	309	0.13
ALL COS.	15	40,528	9,536	36,527	0.24

CARBON DIOXIDE INJECTION

COMPANY	ACTIVE PROJECTS	CO2 INJECTED (Mcf/d)	OIL PRODUCED (bopd)	WATER PRODUCED (bwpd)	GAS PRODUCED (Mcf/d)	G.O.R
TRINTOC	5	7,509	277	38	956	3,451
ALL COS.	5	7,509	277	38	956	3,451

APPENDIX XVI
WATER INJECTION SUMMARY BY PROJECTS - 1992

COMPANY	FIELD	PROJECT	WATER INJECTION (bwpd)	OIL PRODUCED (bopd)	WATER PRODUCED (bwpd)	GAS PRODUCED (Mcf/d)	WATER CUT %
AMOCO	TEAK	A/C/E WATERFLOOD	8,725	6,199	2,176	4,431	26.0
	POUI	01/87	112	1,036	1,236	2,815	54.4
	ALL	ALL	8,837	7,235	3,412	7,246	32.0
TRINTOC	CATSHILL	CO-30.BLK.24	948	93	61	29	39.6
		N SAND	579	108	79	44	42.2
	PT.FORTIN	CRUSE 'G'	0	25	38	5	60.3
	G'YARE	NAVETTE 007	0	259	294	1,212	53.2
		NAVETTE 410	0	247	1,309	288	84.1
		410 EXT.	0	106	38	123	26.4
		307 WATERFLOOD	0	252	484	287	65.8
		307 EXT.	0	27	10	31	27.0
	TRINITY	SHALLOW HERRERA	3,211	244	412	48	62.8
	ALL	ALL	4,738	1,361	2,725	2,067	66.7
TRINTOPEC	PALO SECO	PS/UF/500/1	0	35	36	26	50.7
	FYZABAD	FM/UF/172/1	0	19	8	15	29.6
		FM/UF/169/1	0	76	144	56	65.5
	MACKENZIE	MK/UF/48/1	0	78	14	59	15.2
	GALEOTA	GAL/HF/15/11	2,092	469	158	363	25.2
	ALL	ALL	2,092	677	360	519	34.7
TOTAL	ALL	ALL	15,667	9,273	6,497	9,832	41.2

APPENDIX XVII

STEAM INJECTION SUMMARY BY PROJECTS - 1992

COMPANY	FIELD	PROJECTS	STEAM INJECTED (bspd)	OIL PRODUCED (bopd)	WATER PRODUCED (bwpd)	WATER CUT %	OIL/STEAM RATIO
TRINTOPEC	QUARRY		5,746	1,250	4,045	76.4	0.22
	FYZABAD		3,677	600	3,945	86.8	0.16
	GUAPO		6,505	1,330	6,291	82.5	0.20
	CENTRAL LOS BAJOS		5,113	1,631	5,245	76.3	0.32
	PALO SECO		9,062	2,699	8,479	75.9	0.30
	BENN. V'GE		908	278	633	69.5	0.31
	ALL	ALL	31,011	7,788	28,638	78.6	0.25
TRINTOC	F.RESERVE	Project 111	6,110	913	5,458	85.7	0.15
		Ph.1 West Ext	441	73	175	70.6	0.16
		Phase 1 Ext.	0	101	151	59.9	0.00
	P.LANDS'E'.	Steamflood	849	203	1,064	84.0	0.24
		Phase 1. Exp.	191	67	89	57.1	0.35
		Phase 1a. Exp	372	70	122	63.5	0.19
	Pt.FORTIN	Cruse 'E'	725	196	489	71.4	0.27
		Cruse 'E Ext.	127	35	32	47.8	0.27
	ALL	ALL	8,815	1,658	7,580	82.1	0.19
PCOL	FYZABAD	Thermal 1	702	90	309	77.4	0.13
	ALL	ALL	702	90	309	77.4	0.13
ALL COS.	ALL	ALL	40,528	9,536	36,527	79.3	0.24

CARBON DIOXIDE INJECTION SUMMARY BY PROJECTS - 1992

COMPANY	FIELD	PROJECT	INJECTION (Mcf/d)	OIL (bopd)	WATER (bwpd)	GAS (Mcf/d)	G.O.R
TRINTOC	F.RESERVE	Forest Sds.	1,278	10	3	9	900
		Zone 5 Sds.	1,176	138	13	352	2,551
		Exp.CO2 CYC.	200	16	1	6	375
		UCWE	1,458	46	17	45	978
	OROPOUCHE	CO2 FLOOD	3,397	67	4	544	8,119
ALL COS.	ALL	ALL	7,509	277	38	956	3,451

APPENDIX XVIII
NATURAL GAS PRODUCTION BY COMPANIES
(Milion Cubic Feet/Day)

COMPANY	1988	1989	1990	1991	1992
Amoco	607	596	495	557	601
Trinmar	65	63	65	70	44
Trintopec	18	14	10	9	8
Trintoc	28	28	21	20	22
P.C.O.L.	0	0	0	0	0
Trintomar	0	0	51	61	40
Total	718	701	642	717	715

APPENDIX XIX
NATURAL GAS UTILIZATION - 1988 - 1992
(Million cubic feet per day)

	COMPANY	1988	1989	1990	1991	1992
REFINERY (AS FUEL)	Trintoc(P-a-P)	32	30	30	35	34
	Trintoc(P/F)	9	9	8	10	10
	*	41	39	38	45	44
FIELD USE (AS FUEL)		38	36	46	41	41
PRODUCTION USE *		236	212	196	206	208 *
OIL COMPANY UTILIZATION TOTAL	Sub-Total	315	287	281	292	293 *
FERTILIZER MANUFACTURE	Hydro-Agri(FCL)	29	22	27	31	31
	Fertrin	95	91	92	95	91
	Tringen	49	47	52	50	53
	Tringen 11	29	43	39	46	46
	Urea	10	10	10	2	10
	Fertilizer Sub-Total	212	213	220	224	231
POWER GENERATION	T & TEC	116	116	119	130	137
CEMENT MANUFACTURE	Trinidad Cement Limited	7	8	9	9	10
OTHER LARGE CONSUMERS	Methanol	35	36	36	42	46
	Iscott	22	25	26	27	29
Phoenix Park SMALL CONSUMERS		9	8	9	10 9	21 10
TOTAL		716	692	699	732	777

* - NB: Includes re-compressed gas used for gas lifting.

APPENDIX XX

ANNUAL STATISTICS FOR NATURAL GAS PRODUCTION AND UTILIZATION 1988 - 1992

	1988		1989		1990		1991		1992	
	MMSCF/D	%	MMSCF/D	%	MMSCF/D	%	MMSCF/D	%	MMSCF/D	%
PRODUCTION	718	100	701	100	643	100	716	100	715	100
GOR (M3/M3)	848		933		857		877		929	
A. USED AS FUEL IN FIELDS	43	5.9	43	6.1	54	8.5	48	6.6	48	6.7
IN REFINERIES	42	5.8	39	5.6	38	6.0	45	6.3	44	6.3
	260	36.2	268	38.2	264	41.1	298	41.6	323	45.1
SUB TOTAL	345	48.0	350	49.9	356	55.4	391	54.5	415	58.1
B. OTHER COMPLETE UTILIZATION:										
USED AS PROCESS GAS	144	20.1	145	20.7	154	24.0	161	22.5	160	22.4
INJECTED INTO FORMATION	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
CONVERTED TO C.H.P.S.	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SUB TOTAL	144	20.1	145	20.7	154	24.0	161	22.5	160	22.4
C. VENTED										
AFTER USE OF PNEUMATIC ENERGY	168	23.4	142	20.3	103	16.0	117	16.3	107	14.9
WITHOUT USE	65	9.1	66	9.4	34	5.3	51	7.1	33	4.6
SUB TOTAL	233	32.5	208	29.7	137	21.3	168	23.5	140	19.5

APPENDIX XXI

THE FOLLOWING TABLE SHOWS FOR THE YEARS 1990,1991,1992 THE QUANTITY OF ASPHALT EXTRACTED FROM THE PITCH LAKE AND THE QUANTITY OF DERIVED PRODUCTS WHICH WERE EXPORTED AND CONSUMED LOCALLY.

NATURAL ASPHALT	METRIC TONS		
	1990	1991	1992
...EXTRACTED BY MINISTRY OF WORKS FOR LOCAL USE	6 138.84	3 712.22	3 712.22
...EXTRACTED BY TRINIDAD LAKE ASPHALT COMPANY	19 155	21 406	20 597
TOTAL	25 293.84	25 118.22	24 309.22
DERIVED PRODUCTS MANUFACTURED BY THE COMPANY			
EXPORTS :-			
...CRUDE ASPHALT	0	0	0
...DRIED ASPHALT	19 307	19 098	18 305
...CEMENT ASPHALT	96	0	0
TOTAL	19 403	19 098	18 305
LOCAL SALES :-			
...CRUDE ASPHALT	0	0	0
...DRIED ASPHALT	1 598	624	267
...CEMENT ASPHALT	2 176	1 121	1 695
TOTAL	3 774	1 745	1 962

APPENDIX XXII

DESTINATION OF EXPORTS OF CRUDE AND REFINED PRODUCTS FROM TRINIDAD AND TOBAGO - 1992

(all quantities in barrels)

COUNTRY	TOTAL REFINED PRODUCTS	% OF TOTAL EXPORTS	CRUDE PETROLEUM EXPORTS	L.P.G.	AVIATION GASOLENE	MOTOR GASOLENE	KEROSENE & AVIATION TURBINE FUEL	GAS & DIESEL OILS	FUEL OIL	PETRO-CHEMICALS	ASPHALT	LUBES & GREASES	OTHER
NORTH AMERICA -													
CANADA	1,165,558	3.03	0	0	0	0	0	479,410	686,148	0	0	0	0
U.S.A.	12,576,855	32.68	23,380,446	0	0	923,436	1,173,241	2,242,187	7,157,414	1,526	0	156,763	922288
TOTAL N.A.	13,742,413	35.71	23,380,446	0	0	923,436	1,173,241	2,721,597	7,843,562	1,526	0	156,763	922,288
CENTRAL AMERICA -													
REPUBLIC OF PANAMA	230,878	0.60	0	0	0	0	0	219,872	0	0	0	11,006	0
GUATEMALA	0	0.00	0	0	0	0	0	0	0	0	0	0	0
OTHER C.A. (a)	34,377	0.09	0	0	0	0	0	0	0	0	0	34,377	0
TOTAL C.A.	265,255	0.69	0	0	0	0	0	219,872	0	0	0	45,383	0
SOUTH AMERICA -													
GUYANA	976,852	2.54	0	5,119	1,476	28,875	34,266	215,617	687,475	0	4,024	0	0
SURINAME	2,234,709	5.81	0	0	2,296	204,630	71,127	381,896	1,572,172	0	0	0	2588
FRENCH GUIANA	1,761,982	4.58	0	12,712	0	258,670	230,320	959,426	279,297	0	21,557	0	0
OTHER S.A. (b)	1,355,789	3.52	0	0	0	1,167,445	0	140,479	0	0	0	47,865	0
TOTAL S.A.	6,329,332	16.45	0	17,831	3,772	1,659,620	335,713	1,697,418	2,538,944	0	25,581	47,865	2,588
WEST INDIES -													
BRITISH (c)	2,593,246	6.74	0	180,310	5,678	741,727	569,144	573,940	307,420	0	21,177	0	193,850
FRENCH (d)	1,160,343	3.01	0	54,048	1,629	212,866	177,397	472,943	236,723	0	4,737	0	0
NETHERLANDS (e)	8,004,356	20.80	0	0	0	432,366	43,876	752,834	6,714,656	0	1,782	58,842	0
HAITI	0	0.00	0	0	0	0	0	0	0	0	0	0	0
OTHER W.I.ISLANDS (f)	1,945,837	5.06	0	11,205	0	331,605	60,199	545,632	682,359	0	0	94,970	219867
TOTAL W.I.	13,703,782	35.61	0	245,563	7,307	1,718,564	850,616	2,345,349	7,941,158	0	27,696	153,812	413,717
EUROPE -													
ITALY	0	0.00	0	0	0	0	0	0	0	0	0	0	0
ENGLAND	317,036	0.82	0	0	0	0	0	0	317,036	0	0	0	0
OTHER EUROPE (g)	768,964	2.00	0	0	0	0	239,494	214,014	315,456	0	0	0	0
TOTAL EUROPE	1,086,000	2.82	0	0	0	0	239,494	214,014	632,492	0	0	0	0
OTHERS -													
JAPAN	2,050	0.01	0	0	0	0	0	0	0	2,050	0	0	0
OTHERS*	3,298,639	8.57	0	5,023	0	0	219,497	9,412	3,032,603	0	0	32,104	0
TOTAL OTHERS	3,300,689	8.58	0	5,023	0	0	219,497	9,412	3,032,603	2,050	0	32,104	0
TOTAL CARGOES	38,427,471	99.85	23,380,446	268,417	11,079	4,301,620	2,818,561	7,207,662	21,988,759	3,576	53,277	435,927	1,338,593
FOREIGN BUNKERS	59,593	0.15	0	0	0	0	0	26,112	33,039	0	0	0	442
TOTAL EXPORT	38,487,064	100	23,380,446	268,417	11,079	4,301,620	2,818,561	7,233,774	22,021,798	3,576	53,277	435,927	1,339,035

Note : These figures are only for Trintoc

* Countries not detailed

(a) Other C.A. : Ecuador

(b) Other S.A. : Uruguay, Colombia

(c) British : Antigua,Anguilla,Barbados,Bequia,Carriacou,Dominica, Grenada,Jamaica,Montserrat,Nevis,St.Kitts, St. Lucia St.Vincent.

(d) French : Guadeloupe,Martinique,St.Barthelemy,St.Barths,St.Maarten.

(e) Netherlands : St.Eustatius,Aruba,Curacao

(f) Other W.I.Islands : Bahamas,Cuba,Tortola,Virgin Gorda Mustique,Puerto Rico,Cuba,Dominican Republic

(g) Other Europe : Rotterdam

APPENDIX XXIII
MOVEMENTS OF REFINED PRODUCTS - 1992
(all quantities in barrels)

PRODUCT	OPENING INVENTORY	PRODUCTION	PURCHASES FROM THE REFINERY	IMPORTS	OTHER RECEIPTS	TOTAL OPENING INVENTORY AND RECEIPTS
LPG	13,470	792,126	7,992	0	12,153	825,741
Mogas - Premium	255,964	6,419,589	538,697	0	0	7,214,250
Mogas - Regular	222,783	698,068	0	0	0	920,851
Mogas - Unfinished	211,966	214,343	24,343	0	0	450,652
Naphtha	353,552	(1,069,898)	1,515,020	0	1,074,504	1,873,178
Aviation Gasoline	7,009	17,662	0	11,976	8,892	45,539
Av. Turbine Fuel/Kero	261,192	3,540,914	295,439	0	460,000	4,557,545
Marine Diesel	26,328	26,235	0	0	0	52,563
White Spirit	2,227	11,459	5,786	0	0	19,472
Gas Oil	694,073	6,748,027	234,286	968,389	1,222	8,645,997
Petrochemicals	56,415	(8,883)	1,076	7,844	0	55,398
Lubes	83,940	447,932	0	0	5,533	537,405
Fuel Oil	1,873,585	22,031,116	0	0	5,936	23,910,637
Asphaltic Products	12,670	110,433	0	0	0	123,103
Other Finished Products	4	2	0	0	0	6
Unfinished Product	2,123,492	1,076,827	442,784	426,619	8,162	4,078,938
TOTAL	6,198,670	41,055,952	3,065,423	1,414,828	1,576,402	53,311,275

continued

APPENDIX XXIII
MOVEMENTS OF REFINED PRODUCTS - 1992
(all quantities in barrels)

PRODUCT	LOCAL CONSUMPTION			SALES TO NPMC	SALES TO OTHER COMPANIES	EXPORTS			TRANSFERS REFINERY	OTHER DISBURSEMENT	ENDING INVENTORY	TOTAL CLOSING INVENTORY & DISBURSEMENT
	OWN USE	L.A.T.T	TOTAL			CARGOES	MARAVEN	FOREIGN BUNKERS				
LPG	222	0	222	539,983	0	272,183	0	0	4,576	0	8,777	825,741
Mogas - Premium	10,371	0	10,371	2,704,512	0	3,268,963	379,116	0	464,230	0	387,058	7,214,250
Mogas - Regular	47	0	47	123,576	0	509,615	159,918	0	101,326	0	26,369	920,851
Mogas - Unfinished	329	0	329	6,423	0	190,929	0	0	45,266	0	207,705	450,652
Naphtha	0	0	0	0	0	4,087	0	0	1,495,211	2,638	371,242	1,873,178
Aviation Gasoline	0	0	0	10,444	4,492	17,980	0	0	0	0	12,623	45,539
Av. Turbine Fuel/Kero	1,839	0	1,839	656,557	44,620	1,198,109	1,632,231	0	268,821	460,000	295,368	4,557,545
Marine Diesel	0	0	0	8,079	21,140	1,381	0	4,098	0	0	17,865	52,563
White Spirit	0	0	0	6,424	917	5,509	0	0	5,785	0	837	19,472
Gas Oil	11,582	0	11,582	1,067,467	176,540	5,621,953	865,624	22,014	235,965	0	644,852	8,645,997
Petrochemicals	14	0	14	2,969	4,872	3,576	0	0	995	0	44,076	56,502
Lubes	5,302	0	5,302	0	0	170,403	265,524	0	0	0	96,176	537,405
Fuel Oil	27	0	27	45,957	513,591	13,626,585	7,947,451	33,039	0	0	1,743,987	23,910,637
Asphaltic Products	257	26,553	26,810	33,925	6,243	49,190	0	0	0	0	6,935	123,103
Other Finished Products	0	0	0	0	2	0	0	0	0	0	4	6
Unfinished Product	241	0	241	0	0	1,465,438	439,045	442	446,881	12,738	1,713,049	4,077,834
TOTAL	30,231	26,553	56,784	5,206,316	772,417	26,405,901	11,688,909	59,593	3,069,056	475,376	5,576,923	53,311,275

Note: These figures are for Trintoc

APPENDIX XXIV
SUMMARY OF CRUDE OIL ASSESSED FOR CROWN ROYALTY WITH PRICES AND ANALYSES - 1992
(FOR HALF YEARLY ASSESSMENT PERIOD ENDING 30th JUNE)

COMPANY	NET ROYALTY PRODUCTION (Barrel)	FIELD STORAGE VALUE		ROYALTY PAYABLE	GASOLINE		LEAD mls
		Per barrel	Dollar	$	Barrel	%	
TRINTOPEC (LAND)	2,335,797	46.44	108,467,515.23	10,846,751.52	96,172	4.12	475,722.72
GALEOTA	330,182	72.90	24,071,040.76	3,008,879.86	54,980	16.65	0.00
PCOL	14,406	57.27	825,090.82	82,509.08	1,209	8.39	259,711.14
TRINTOC (PF)	1,002,213	52.80	52,919,209.26	5,291,920.93	117,977	11.77	4,462,066.10
TRINTOC (PAP)	1,748,614	56.39	98,611,380.10	9,861,138.01	182,599	10.44	2,907,817.32
TNA	6,088,798	47.71	290,522,252.62	29,052,225.26	660,370	10.85	25,367,357.40
TRINTOMAR	451,292	72.74	32,828,356.12	4,103,544.52	115,626	25.62	0.00
AMOCO	12,326,380	82.32	1,014,668,809.66	126,833,601.21	1,651,761	13.40	28,305,501.84
TOTAL	24,297,682.00	66.79	1,622,913,654.57	189,080,570.39	2,880,694	11.86	61,778,176.52

Continued

COMPANY	GAS OIL				TOTAL GAS OIL		FUEL OIL	
	53 - 57	48 - 52	43 - 47	#2 FUEL	Barrel	%	Barrel	%
TRINTOPEC (LAND)	12,322	2,406	157,584	159,173	331,485	14.19	1,908,140	81.69
GALEOTA	0	0	0	153,345	153,345	46.44	121,857	36.91
PCOL	0	0	617	2,413	3,030	21.03	10,167	70.57
TRINTOC (PF)	0	53,776	117,861	13,698	185,335	18.49	698,901	69.74
TRINTOC (PAP)	0	169,912	112,937	194,978	477,827	27.33	1,088,188	62.23
TNA	0	588,718	0	0	588,718	9.67	4,839,710	79.49
TRINTOMAR	0	187,614	0	0	187,614	41.57	148,052	32.81
AMOCO	0	0	9,116,197	0	9,116,197	73.96	1,558,422	12.64
TOTAL	12,322	1,002,426	9,505,196	523,607	11,043,551	45.45	10,373,437	42.69

APPENDIX XXIV
SUMMARY OF CRUDE OIL ASSESSED FOR CROWN ROYALTY WITH PRICES AND ANALYSES - 1992
(FOR HALF YEARLY ASSESSMENT PERIOD ENDING 31st DECEMBER)

COMPANY	NET ROYALTY PRODUCTION (Barrel)	FIELD STORAGE VALUE		ROYALTY PAYABLE	GASOLINE		LEAD mls
		Per barrel	$	$	Barrel	%	
TRINTOPEC (LAND)	2,187,754	57.32	125,411,804.80	12,541,180.48	71,264	3.26	259,711.14
GALEOTA	340,384	79.92	27,204,940.88	3,400,617.61	55,892	16.42	0.00
PCOL	13,351	57.05	761,622.29	76,162.23	1,120	8.39	151,171.13
TRINTOC (PF)	1,019,087	62.86	64,054,804.17	6,405,480.42	115,055	11.29	4,462,066.10
TRINTOC (PAP)	1,708,207	66.06	112,842,684.23	11,284,268.42	173,480	10.16	2,976,352.38
TNA	5,618,817	58.66	329,603,764.38	32,960,376.44	581,144	10.34	22,378,041.84
TRINTOMAR	485,646	80.74	39,213,189.91	4,901,648.74	146,953	30.26	0.00
AMOCO	11,226,163	88.62	994,834,628.20	124,354,328.53	1,504,049	13.40	24,130,096.20
TOTAL	22,599,409	74.95	1,693,927,438.86	195,924,062.87	2,648,957	11.72	54,357,438.79

Continued

COMPANY	GAS OIL				TOTAL GAS OIL		FUEL OIL	
	53 - 57	48 - 52	43 - 47	#2 FUEL	Barrel	%	Barrel	%
TRINTOPEC (LAND)	9,216	2,119	21,722	255,732	288,789	13.20	1,827,701	83.54
GALEOTA	0	0	0	159,117	159,117	46.75	125,375	36.83
PCOL	0	0	572	2,236	2,808	21.03	9,423	70.58
TRINTOC (PF)	0	58,517	121,091	14,962	194,570	19.09	709,462	69.62
TRINTOC (PAP)	0	163,138	217,887	83,533	464,558	27.20	1,070,169	62.65
TNA	0	575,171	0	0	575,171	10.24	4,462,502	79.42
TRINTOMAR	0	203,883	0	0	203,883	41.98	134,810	27.76
AMOCO	0	0	8,296,906	0	8,296,906	73.91	1,425,208	12.70
TOTAL	9,216	1,002,828	8,658,178	515,580	10,185,802	45.07	9,764,650	43.21

APPENDIX XXV

THE ROYALTY ASSESSMENT ON CRUDE OIL, NATURAL GASOLINE AND NATURAL GAS PRODUCED ON STATE OIL MINING LEASES FOR EACH HALF-YEARLY PERIOD DURING 1990 - 1992

SOURCE OF REVENUE	UNITS	31-12-92	30-06-92	31-12-91	30-06-91	31-12-90	30-06-90
ROYALTY ON NATURAL GAS	($TT)	1,076,568.07	1,136,650.49	1,121,748.36	899,687.27	910,598.99	895,021.68
ROYALTY ON NATURAL GASOLINE	($TT)	0.00	0.00	0.00	0.00	0.00	0.00
MINIMUM RENT NET OFFSET BY ROYALTY ON CRUDE OIL	($TT)	5,392,854.30	5,359,853.44	5,283,721.91	5,245,559.20	4,171,320.10	4,068,160.99
ROYALTY ON CRUDE OIL	($TT)	195,924,062.87	189,080,570.39	213,539,411.53	212,248,311.10	313,205,560.88	220,637,304.90
HALF YEARLY TOTAL	($TT)	202,393,485.24	195,577,074.32	219,944,881.80	218,393,557.57	318,287,479.97	225,600,487.57
YEARLY TOTAL	($TT)	397,970,559.56		438,338,439.37		543,887,967.54	

THE VOLUMES UPON WHICH THE ABOVE ASSESSMENTS WERE MADE WERE AS FOLLOWS :

SUBSTANCE ASSESSED FOR ROYALTY	UNITS	31-12-92	30-06-92	31-12-91	30-06-91	31-12-90	30-06-90
NATURAL GAS	M.C.F.	71,771,205	75,780,488	74,786,963	59,982,150	60,709,635	59,671,095
NATURAL GASOLINE	I.G.	0	0	0	0	0	0
CRUDE OIL NET	BARREL	22,599,409	24,297,682	25,204,967	25,161,527	26,201,243	26,195,500
FIELD STORAGE VALUE PER BARREL	($TT)	74.97	66.80	72.94	72.23	102.85	72.49
ROYALTY PAYABLE PER BARREL	($TT)	8.67	7.78	8.47	8.44	11.95	8.42

DATA USED TO EVALUATE CRUDE OIL FOR CROWN ROYALTY ASSESSMENTS :

PRODUCT	UNITS	31-12-92	30-06-92	31-12-91	30-06-91	31-12-90	30-06-90
3% Sulphur Grade Fuel	($TT)	55.365577	41.042045	42.950315	43.210302	72.909234	50.405552
No. 2 Fuel	($TT)	102.223858	94.900647	104.889488	102.327721	138.559192	95.492546
43- 47 D.I. Gas Oil	($TT)	102.949494	95.626283	105.615123	103.053356	139.284828	96.218181
48- 52 D.I. Gas Oil	($TT)	103.173455	95.850244	105.839085	103.277318	139.508789	96.442143
53- 57 D.I. Gas Oil	($TT)	103.621379	96.298167	106.287008	103.725241	139.956712	96.890066
70- 72 Oct. M Headed Motor Gas	($TT)	98.535795	100.573522	105.361754	114.116250	138.858621	106.834108
Average Middle Rate for Sight Draft on N.Y./T.T. Currency for U.S. $1.00	($TT)	4.265935	4.265935	4.265935	4.265935	4.265935	4.265935
Value of Tetra Ethyl Lead in TT cents per Millilitre		6.649325	7.007480	6.223606	5.302963	5.885394	5.145632

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