

Ab. 25/4/89

THE COMPETITION TRIBUNAL

IN THE MATTER OF an Application by the Director of Investigation and Research under sections 92 and 105 of the Competition Act, R.S.C. 1985, c.C-34, as amended;

AND IN THE MATTER OF the acquisition of Imperial Oil Limited of the shares of Texaco Canada Inc.

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COMPETITION TRIBUNAL
TRIBUNAL DE LA CONCURRENCE

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JUN 21 1989 *AB*

REGISTRAR - REGISTRAIRE

OTTAWA, ONT. #22

I hereby certify this to be a true copy of the original case file.

I hereby certify that the copy and signature of the Director of Investigation and Research are as shown on the original.

[Signature]

Director of Investigation and Research

Competition Tribunal
100 King Street West, Ottawa, Ontario

THE DIRECTOR OF INVESTIGATION AND RESEARCH

Applicant

- and -

IMPERIAL OIL LIMITED

Respondent

AFFIDAVIT OF DONALD G. McPETRIDGE

I, Donald G. McPetridge, of the City of Ottawa, in the Province of Ontario in Canada MAKE OATH AND SAY AS FOLLOWS:

1. I am a Professor of Economics at Carleton University and have been retained by the Director of Investigation and Research, Consumer and Corporate Affairs - Canada, to provide my opinion on the efficiency gains

COMPETITION TRIBUNAL
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resulting from the merger of Imperial Oil Limited with Texaco Canada Inc. Now shown to me and attached as Exhibit "A" to this my affidavit is a copy of my Report.

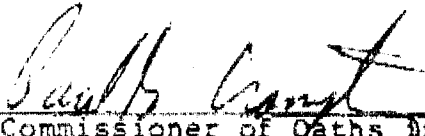
2. The contents of this Report attached as Exhibit "A" to this my affidavit and the opinions expressed therein are true to the best of my knowledge, information and belief.

3. I make this affidavit pursuant to Rule 42(1) of the Competition Tribunal Rules.

SWORN before me at the)
City of Ottawa, in the)
Province of Ontario,)
this 19th day of July,)
1989.)



Donald G. McPetridge



A Commissioner of Oaths in
and for the Province of Ontario

DL 25/9/89

This is EXHIBIT "A" to the
Affidavit of Donald
G. McFetridge sworn before me
on July 1st 1989

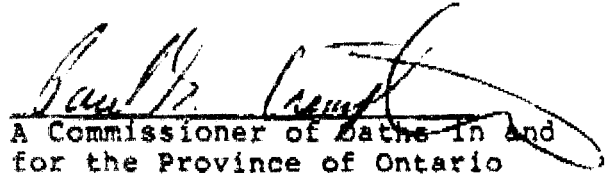

A Commissioner of Oaths in and
for the Province of Ontario

EXHIBIT "A"

EFFICIENCIES RESULTING
FROM THE IMPERIAL OIL TEXACO MERGER

D.G. McFetridge

INTRODUCTION

1. The purpose of this document is to report on the magnitude of the efficiencies expected to result from the merger of Imperial Oil Limited and Texaco Canada Inc. The opinions expressed in this report are based on my review of information and documents provided by Imperial Oil Limited.

2. The merger is expected to result in resource savings resulting from the rationalization of retail and commercial sales forces, service station networks, distribution terminals and promotional activities. In addition, significant synergies are likely to be achieved by the joint operation of the Sarnia and Nanticoke refineries.

3. The present value of the savings achieved in the ten years following the merger is approximately \$ [REDACTED] million. This assumes a 10 percent real discount rate (end of year discounting) and no change in the relative price of crude oil. Taking a longer time horizon and allowing for increases in the relative price of crude oil results in capitalized savings which are approximately 60 percent larger.

4. It is unlikely that these efficiency gains would be achieved in the absence of the merger.

5. It has been put forward that the merger will facilitate efficiency gains in the following functional areas:

- retailing
- commercial sales
- terminal operation
- refinery operation
- other supply
- administration

6. These savings take the form of ongoing resource savings and increases in surplus as well as one-time savings. To express them in common terms they are capitalized over a ten-year horizon using a 10 percent real discount rate.

Efficiencies in Retailing

7. Retailing includes all activities associated with the marketing of motor gasoline through service stations and the marketing of domestic heating oil. Imperial and Texaco are presently marketing the same products to the same customers through parallel organizations. The combination of retail sales forces will enable Imperial and Texaco to reduce their combined retail sales force by █████ employees or █████ percent. This reduction is to occur by attrition over a

three year period. The annual saving in employment costs would amount to approximately \$[REDACTED]million in 1992.

8. Imperial and Texaco currently spend a total of \$[REDACTED]million annually on advertising. Imperial calculates that the optimal level of advertising for the single larger volume Esso brand will be \$[REDACTED]million annually. The annual saving in promotion cost would amount to \$[REDACTED]million.

9. In order to maintain their presence in the market Imperial and Texaco would invest a total of \$[REDACTED]million annually over the next eight years in new service station construction. The merger will eliminate the construction of duplicate Imperial and Texaco stations in new areas. The result will be fewer but higher volume stations in new locations. The estimated annual saving in construction costs would amount to \$[REDACTED]million.

10. The present value of all retail efficiencies less relocation retraining, credit card conversion and clean-up costs would amount to \$[REDACTED]million. These efficiencies would not be realized in the absence of the merger.

Commercial Sales Efficiencies

11. Commercial sales are sales made to commercial and industrial customers, airlines, railways, shipping companies and resellers. The supply planning, crude acquisition and pipeline planning functions are included under commercial sales.

12. The merger will allow the rationalization of the commercial sales forces and product supply, crude acquisition and pipeline staffs of Imperial and Texaco. The result will be a reduction in the combined workforce in this area by [redacted] employees or [redacted] percent by 1992. The annual saving in employment cost will amount to \$[redacted] million (1989 dollars) by 1992. In present value terms and net of one-time relocation and retraining costs this amounts to \$[redacted] million. This saving could not be realized in the absence of the merger.

Terminal Efficiencies

13. Imperial and Texaco operate a number of terminals which are often side-by-side. In many cases neither terminal is fully utilized. In these cases the combined volume of both terminals could be handled by one with minimal additional investment. This results in resource savings of several kinds.

14. Imperial plans to close or sell [redacted] terminals. This will ultimately result in a workforce reduction of [redacted] employees or [redacted] percent of the existing workforce. This reduction is to occur by attrition over three years. The annual employment cost savings (in 1989 dollars) is expected to be \$[redacted] million by 1992. The present discounted value of this saving over 10 years less the one-time cost of relocation and retraining is expected to be \$[redacted] million.

15. The closure of duplicate terminals will also result in a saving in terminal operating costs. This will amount to \$[redacted] million annually. Discounting this saving over 10 years and deducting the cost of one-time investments necessary to expand some Imperial terminals (\$[redacted] million) and to decommission the Texaco terminals (\$[redacted] million) yields a net gain of under \$[redacted] million.

16. There will also be a reduction in the value of stock tied up in inventory. Imperial argues that virtually all of the safety stocks and all of the stock that is technically unavailable for normal use can be saved. The result is a one-time inventory saving of approximately \$[redacted] million.

17. The total saving in present value terms amounts to approximately \$[redacted] million. These savings could not be achieved in the absence of a merger.

Joint Optimization of the Sarnia and Nanticoke Refineries

18. The Sarnia and Nanticoke refineries differ in their technical characteristics with the Sarnia refinery being more complex and more able to accommodate heavy and high-sulphur crudes. The differences in the capabilities of the two refineries offer opportunities for specialization by product or by stage of production.

19. To estimate the benefits of joint optimization of the two refineries Imperial Oil made use of linear programming models. These models are commonly used by refinery operators. In this case Imperial used the existing model of its Sarnia refinery and developed a model of the Nanticoke refinery using Texaco's supply planning models. The two separate models were then combined so that the crude slates of each refinery could be processed in the most efficient location and the product demands could be filled from the most efficient location.

20. The analytical approach employed by Imperial is to optimize each refinery individually and then to optimize them jointly. The difference in surplus given input and product prices is the value of the synergies derived from joint operation.

21. The linear programming model essentially performs the task of profit maximization. Confronted with a set of product and input prices and processing capacity constraints the model chooses the mix and level of outputs that maximize refinery profit. Given different product and input prices the output level and configuration will differ as will profit. Imperial's synergy estimate is based on 1989 input and product prices.

22. The joint optimization exercise reveals that the two refineries would produce a substantially different product mix if operated together than they do operating alone. [REDACTED]

[REDACTED]. In addition to changing the product mix at each refinery the joint optimization facilitates an increase in throughput. That is, the capacities of the two refineries operated jointly exceeds the sum of their stand alone capacities.

23. This increase in capacity is achieved without any physical change or investment at either refinery. It occurs (as do all synergies) because each refinery has a bottleneck or capacity constraint in a different place. [REDACTED]

[REDACTED]

24. This increase in potential throughput enables the combined operation to reduce its product purchases and makes additional product available for sale to independents or for export. The reduction in product purchases either reduces imports or frees up capacity of other Canadian refiners to export. The economic benefit of reduced product imports (by refiners for resale) is the difference between the price of imports and the marginal cost of domestic production. The benefit from increased exports by either Imperial or by other Canadian refiners is the excess of the export price over marginal cost.

25. One source of profit is the increase in refining capacity that comes from joint operation. Another source is the higher value of the product mix. Joint operation allows these two refineries to produce a higher valued product mix from a given slate of crude than they could on a stand alone basis. Conversely a given product mix can be obtained from

a lower-valued slate of crude (i.e. heavier, higher sulphur) by the two refineries together than on a stand alone basis. The value of the synergies or additional surplus obtained as a consequence of joint operation is expected to be \$~~10~~ million (1989 dollars) annually. This estimate depends on the price (and margin) at which surplus gasoline can be sold. It also depends on the ability of other Canadian refineries, from whom Imperial and Texaco would purchase product on a stand alone basis, to export the product formerly sold to Imperial or Texaco. Given the size and proximity of the U.S. market there is a reasonable likelihood that freed up domestic capacity can be used for export. In the longer term this freed up capacity will be available to meet increased domestic requirements. This is a cost-effective way of expanding domestic refining capacity.

26. The synergies from combined operation of Sarnia and Nanticoke could not be realized in the absence of a merger. There are a number of reasons for this. First, the potential synergies become apparent only after a detailed and sophisticated analysis of each refinery. It is highly unlikely that two competing refiners would agree to share proprietary data about their production capabilities and costs.

27. Second, joint optimization requires that intermediate product (catalytic cracker feed, reformer feed) be transferred between refineries. This requires a high degree of co-ordination between refineries. Co-ordination of activities ranging from crude purchases to product mix decisions would be required. Detailed arrangements of this nature are likely to be extremely costly to negotiate on an arms-length basis (between two independent and competing parties). Moreover as crude and product prices change so will the tasks assigned to each refinery. Arrangements would have to be renegotiated and both parties are likely to take this opportunity to attempt to improve their relative positions.

28. Third, as a consequence of these co-ordination costs, extensive transfers of feedstock between independent refineries are simply not observed.

29. Capitalized over ten years the increase in surplus from joint refinery optimization would amount to \$ [REDACTED] million.

Other Supply Efficiencies

30. The merger would allow the Sarnia and Nanticoke refineries to specialize [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] This will enable Imperial to save \$[REDACTED] million it would have had to invest in Sarnia in 1992 to comply with new on-road sulphur emission standards for diesel fuel. The present value of this saving is \$[REDACTED] million.

31. The merger will also enable Imperial to avoid the investment necessary to upgrade its Finch terminal. The Finch terminal provides a link between the Sarnia refinery and the Trans Northern Pipeline which links Nanticoke to Montreal.

32. In the absence of the merger Imperial would have been obliged to invest some \$[REDACTED] million in improving its connection with the Trans Northern Pipeline at the Finch terminal. With the merger Nanticoke can take responsibility for shipments east of Toronto on the Trans Northern while Sarnia handles the area west of Toronto using the Sarnia Products Pipeline. This will reduce trans-shipment at the Finch terminal and obviate the need for both new investment and the buffer stocks presently held there. The buffer stock reduction is a one-time \$[REDACTED] million saving. The total saving is \$[REDACTED] million.

Head Office Overhead Savings

33. The merger is expected to allow the two companies to combine their financial accounting, refinery engineering, planning and systems organization as well as their managements. The combination of these functions will allow a work force reduction of [REDACTED] employees or [REDACTED] percent of current combined staff. This workforce reduction will occur by attrition and is expected to take three years. The annual saving in employment costs is expected to reach \$[REDACTED] million (1989 dollars) by 1992. Associated with this staff reduction are one-time relocation and retraining costs of \$[REDACTED] million and a one-time cost of \$[REDACTED] million for system reorganization. The present value of the head office overhead saving discounted 10 year time horizon is \$[REDACTED] million. These savings could not be achieved in the absence of the merger.

Total Efficiencies

34. Capitalized over ten years at a 10 percent (real) discount rate the efficiencies resulting from the merger are:

Efficiencies in Retailing	\$ [REDACTED] million
Commercial Sales Efficiencies	[REDACTED] million
Terminal Efficiencies	[REDACTED] million
Joint Optimization of Sarnia and Nanticoke Refineries	[REDACTED] million
Other supply efficiencies	[REDACTED] million
Administrative efficiencies	<u>[REDACTED] million</u>
TOTAL	\$ [REDACTED] million

35. Using an infinite time horizon, mid-year discounting and allowing for the effects of increases in the relative price of crude oil Imperial Oil obtains efficiencies with a capitalized value of over \$ [REDACTED] billion.