Mr. Danard reports to the boss

Arie Gladstone at work

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EDITOR: ROBERT COLLINS

LET'S NOT FORGET TOMORROW

There isn't a man in the oil industry today who wouldn't be happy to own a reliable, wide-screen crystal ball. Probably no other segment of the economy is more dependent on long-range planning. It is, in fact, absolutely essential to a business of this nature and magnitude.

But in lieu of second sight, oil men rely on foresight—which has served them well to date. It took foresight in the late Forties to initiate pipe lines and refineries (see page 2), preparing for anticipated production of the new western fields. But because they were built, large-scale markets for Canadian crude were found.

It takes foresight to continue the expensive but necessary business of exploration in a time of ample supply. But only by continuing this activity do we lose more reserves when we urgently need them.

And similarly today—as the industry is beset with questions about meeting crude oil production “targets”, finding new markets and disposing of surplus crude oil in the west—we must consider not only the present but the future.

There need be no apologies for the present. The growth rate is still substantially greater than that of other industries. Canadi an crude oil production for 1968 is expected to average an all-time high of 560,000 barrels per day. This is an increase of some 21 percent for the 1958-60 period—about twice the anticipated increase in Canada's gross national product for that period.

The prospects for the Sixties are good. During each forthcoming year, the free world is expected to increase its consumption of petroleum products by about a million barrels daily, as compared to 750,000 barrels daily each year in the 1950s.

Oil is still the supreme supplier of energy. As yet it has no challenger as a source of economical or mobile power. To make it even more valuable to mankind the industry is seeking and finding new uses for petroleum and its products.

By 1964 Canada will have an estimated 19.4 million people, each using approximately 19 barrels of petroleum products a year. To meet the increased consumption in the present domestic and U.S. markets, plus anticipated new U.S. markets, Canadian crude production in 1964 is expected to reach 800,000 barrels a day. Of this about 250,000 barrels a day will be exports—approximately twice the current export figure.

Beyond that? Long-term estimates are tricky but it is not unreasonable to expect that Canadian oil production could reach one million barrels daily in about 10 years.

"Over the next 20 years," says Imperial president W. O. Twaits (see page 18), "we will need all the hydrocarbons we can get."
CRUDE OIL MARKETS:

THE SEARCH THAT NEVER ENDS

In 13 years
Canada has matured
from an oil-destitute
nation to a significant
oil producer. Without
markets, the new industry
would have withered at
the wellhead. Here's how
oil men have found, and
still seek, outlets
for our crude

1946: 475,000 B/D (barrels daily)
imported. 315,000 B/D were domestic,
99,500 were imported

1955: 427,000 B/D and in same
areas, 415,000 were domestic.
Exports, 10,250 B/D

By Gordon Wesley

This is a success story that will prob-
ably never make headlines. It is the least-
known yet perhaps the most significant
story in the Canadian oil industry: the
continuing search for, and discovery of,
 crude oil markets.

Oil in the ground is of no commercial
importance. If it can't be sold the efforts
of the geologists, drillers and other pro-
ducing men go for nothing. If markets
(meaning in this case, refineries) had not
been developed following the discovery
of Leduc and other fields, the western oil
industry—instead of being one of the
fastest growing in the world—would have
withered.

In 1947 more than 90 percent of Cana-
da's crude oil requirements was supplied
by other countries. Last year, although
our consumption had tripled, Canadian
crude production was equivalent to 70
percent of our refinery needs.

The story of how the industry found,
and still seeks crude oil markets is not
without drama. It is a tale of risks, fore-
sight, tremendous capital investments
and, above all, initiative. It explains not
merely how tankers and pipe lines were
built, but why. Always there has been the
nagging problem of the great distances
between western fields and the markets,
accentuating the difficulty of laying
down crude at competitive prices.

Until 1947 there was no crude market
problem. From Atlantic to Pacific, ex-
cluding a few small areas, Canada used
imported crude. The outlook for Cana-
dian producers was bleak. Imperial had
drilled 133 dry holes and was even plan-
ing to make gasoline from natural gas in
Alberta. Then Leduc No. 1 eased the oil
famine. Subsequent discoveries ended it.

The search for markets started imme-
diately it became apparent that Leduc
was a major oil field. (A major field, in
industry parlance, is one that contains
100 million barrels of oil or more.) One
obvious market already existed—the re-
fineries in Regina and Moose Jaw which
were receiving their supplies from fields
in the United States—some as far away
as Colorado, Texas and Louisiana. As a
start, trucks hauled the oil to the railway
at Nisku some 20 miles from the field.

Then railroad cars moved it to the
Saskatchewan refineries, and to Calgary
(supplementing crude from Turner
Valley).

Hauling crude by truck is a messy,
inefficient business. Immediately Im-
perial built a small pipe line connecting
the field with the railway, the first leg of
Imperial Pipe Line.

Another obvious market was Edmon-
ton, next door to the field. However,
Edmonton had no refinery, and materials
for refinery building were scarce. A new
plant would be three years in construc-
tion. Then someone remembered, "What
about that old wartime plant at White-
horse?"

A team of Imperial engineers hurried
to Whitehorse on the Alaska highway.
The shut-down U.S. army plant was
sound. It might be moved and reassem-
bled in 18 months. Such a move would
entail many problems and much plan-
ing—but the crude oil had to be refined.

Imperial bought the plant from the
American government. Crews photo-
graphed and blueprinted it. High riggers
and welders toiled aloft through the
north's long summer twilight and short
winter days. Each piece of refinery equip-
ment was coded as it came down. The
towers—one was 146 feet high—were
moved intact.

Some parts went by rail to the coast,
by freighter to Vancouver and by rail
again to Edmonton. Others went 900
miles down the highway on growing,
oversize trailer-trucks. It was a driver's
nightmare: rough and dusty by summer,
dick with ice by winter, with 40 to 60
tons of load at one's back.

At Edmonton the jigsaw puzzle was
assembled together and the refinery reassem-
bled only 17 months after the Leduc dis-
covery. Imperial had won 19 precious
months in the race to open up domestic

To further stimulate the use of prairie
oil, Imperial took a calculated risk and
agreed to supply crude which justified
building at Edmonton of the McColl-
Frontenac (now Texaco Canada) refin-
ery. Although proven reserves at the
time didn't support such a commitment,
the company was confident that the

Meanwhile Imperial Pipe Line Co.
was extending its line to Edmonton; this $9 million, 326-mile gathering system now serves more than 2,000 Alberta wells. At the same time, the pipeliners were studying a line to Regina. Then, in the autumn of 1948, the Redwater field was discovered.

The discovery of Redwater changed the whole complexion of the market effort. Now in western Canada there were an estimated 312 million barrels of crude oil reserves, and this was probably only the beginning. There would be enough oil to meet all the requirements of the prairies—and refinery needs outside the prairies.

The next logical market was Ontario, with a refinery capacity at that time of about 78,000 barrels per day. But to move oil from Alberta to Ontario by tank car could have cost as much as $3.25 per barrel. Ontario refiners were paying $3.53 a barrel for the oil they were buying in the United States and couldn't be expected to pay more for western Canadian crude. Therefore, to sell competitively and still not a reasonable price for their crude at wellhead, the western producers needed a more efficient means of transportation: in this case, a pipe line.

This began the planning and building of the Interprovincial pipe line, longest crude oil line in the world and one of the biggest gambles in Canadian business history.

Redwater showed that the west had great reserves but there was no sure forecast of future discoveries. Nevertheless if oil development was to continue, new markets had to be reached. The line would act as a common carrier and serve the entire industry. Imperial, as the company with the most experience and the most at stake, was prime mover of the project.

The line was privately financed and guaranteed; not a cent of taxpayers' money was risked. At the request of the financing group Imperial assumed one-third ownership, paying the same price for its shares as the general public and everyone else who invested in the company. Imperial's total direct investment, excluding guarantees, was $14.6 million. The remaining ownership is shared by other oil companies, private concerns and the investing public.

Imperial backed the original debentures and bond issues totalling $89 million. It did so by agreeing to move a given volume of crude per day through the line or pay for any deficiency.

Since the line would stop at the lakehead, Imperial also sponsored the building of three tankers worth $12 million to carry the crude across the lakes to Sarnia. Shipping could enter Sarnia only during the ice-free season so Imperial built a $6 million tank farm to feed the refiners during the closed navigation period.

Meanwhile a number of Imperial men worked on the physical planning of the line. It was a time when men gained experience as they went along. No pipe line had ever crossed four states, three provinces and an international boundary. Nearly every problem was a new one. An American subsidiary had to be incorporated for the U.S. portion of the line.

Along the route, field men in aircraft, snowmobiles, even horse-drawn sleighs, raced against time signing up the right-of-way. Meanwhile Imperial's purchasing department sifted offers and inquiries from suppliers across the land. Which asphalt, enamel, pipe-wrapping felt, communication system, pumps, diesel engines, electrical switches were best for the job? And above all, where was the steel coming from?

Everywhere steel manufacturers offered the same delivery date: "Maybe in four or five years..." Imperial's purchasing manager at that time, L. E. Bury, called in Bert Rubery.

"Bert," said Bury, "we've got to find pipe. Pick a bag and don't come back until you get it.

Rubery started his search in the United States. Finally C. W. Murchhead, now vice-president and general works manager of Page's Hersey Tube Ltd. (manufacturers of the pipe) Rubery flew to England. There in a week, with constant help from Richard P. Bower, Canadian trade commissioner in London, they interviewed the heads of a half-dozen steel companies and the British Iron and Steel Board.

The trip paid off. British steel makers were unable to supply the specific kind of steel needed for the pipe line, but they offered to ship up to 40,000 tons of plate steel to the Steel Co. of Canada in Hamilton. Back in Canada Sielko arranged a swap plan, whereby its customers would use the British steel, to allow Sielko to release the necessary amount of pipe steel for Interprovincial. In addition, considerable pipe was obtained in the United States.

The second outlet—a refinery at Wrenshall, Minn.—began taking crude in the early Fifties.

Other Canadian companies pushed into the U.S. The Southern Production Co. (a predecessor of Sinclair Canada Oil) and Woodley Petroleum Co. (parent of Woodley Canadian) built a 227 million refinery at Pine Bend, Minn. Mobil Oil of Canada, Southern Production and the Woodley companies also laid a gathering system in southeastern Saskatchewan and a trunk pipe line from the new refinery to Interprovincial.

In addition, Producers Westpiper Pipe Line, in which Imperial holds an interest, moves Saskatchewan crude to Interprovincial. Last year a total of 56,000 barrels a day of western crude went into the mid-West area of the United States.

By 1952 western crude was flowing into Ontario, the prairie and the American midwest. However, by the end of that year, oil production and reserves exceeded the optimists' wildest dreams. Manitoba and Saskatchewan now had oil. Another Alberta field was in the news. The west had 3,597 producing wells and 1,745 million barrels in reserve. Industry was still under pressure to find more outlets.

By now laymen might wonder: why allow producibility to foreclose even crude oil markets? The answer: the North American system of acquiring, retaining and developing oil lands is based on the oil and gas lease with an obligation to
In 1959 Alberta exported some 36,000 barrels a day to the Puget Sound area. (In addition, B.C. refineries used 64,000 barrels a day.) During the Suez crisis this seaboard outlet enabled Alberta to supply California refineries which normally take some of their crude from the Middle East.

By the end of 1959 these were the post-Leduc achievements. Canadian crude reserves had increased from 72 million to 4,000 million; refining capacity from 246,000 to 857,500 barrels a day; crude production from 21,000 barrels a day to 522,000. No other area in the history of the oil industry has achieved such a rapid market development. And the search for economic markets continues.

Last spring, J. H. Goldsmith, financial editor of the Montreal Star summed up the situation like this:

"The oil industry has long been known for its inclination to take the broad view and it is fortunate that the oil companies have been able to follow the conclusions they reach on a long-term program. In the past such policies have worked out well, and there is no reason to suppose that the results in the future will turn out otherwise."

CRUDE OIL MARKETS:

By Vernon Taylor

In the past two years we have seen some substantial developments in the Canadian oil industry. There has been:

- a 20 percent increase in crude oil production in Western Canada,
- nearly a 50 percent increase in natural gas output,
- a 135 percent increase in the production of natural gas liquids.

In the interval, too, the Borden Royal Commission on Energy has brought down its two reports on gas and oil; a National Energy Board has been formed and the industry has received its sanction and that of the federal government to export additional large volumes of natural gas to the U.S.

There is an old French saying "the more things change, the more they remain the same," and despite all these changes the two-year-old issue of "On to Montreal!" is still with us. We still hear the question, "Why don't we prevent foreign crude from being used in the refineries of Montreal, when we can meet their requirements with Canadian crude?"

There is one very short answer: "For the same reason that we don't force Quebec or Ontario to use Maritime or Alberta coal—transportation and other penalties would outweigh the advantage."

Perhaps we can inspect this problem in greater detail.

Can western Canadian crude compete in Montreal with offshore crude at present posted prices?

A realistic appraisal shows that Redwater crude is at a disadvantage of between 23 and 39 cents per barrel when competing with Venezuelan or Middle East crude laid down in Montreal at prevailing tanker rates. This is based on a pipe line tariff of 60 cents per barrel from Edmonton to Montreal (which is the same as the present tariff to Toronto) and parity of the Canadian and U.S. dollars. We also know that with present surplus producing capacity throughout the world and present tanker surplus, offshore crude frequently moves at discounts below the so-called posted prices.

Thus western producers would have to reduce their price by at least 39 cents per barrel to try and capture the entire market. Probably, however, producing companies supplying the offshore crude to Montreal would not give up a 350,000 barrel per day market without a fight. There is good reason to believe that they would drop their prices still further to try to hold their market. Western Canadian producers already sell their crude at 40 to 85 cents per barrel less than U.S. producers of comparable crude quality. Any reduction would place the western producer at a greater disadvantage to compete economically, and to carry on the necessary exploration to discover new reserves which will take care of the long-range
growth of the Canadian oil industry.

So if we don’t think we can compete economically with offshore crude in Montreal, it would appear that we can only capture this market by a system of government controls.

What problems do we face in trying to secure permanent markets for Canadian crude by a system of quotas or other restrictions?

We do not think restrictions to capture all or a major part of the Montreal market can be devised which will not have some remote and perhaps distant effects. In particular, the region which Montreal serves would be a fertile area with a population estimated at about six million people. So long as there is a legitimate doubt that switching those people who now get their supply of crude oil from Montreal serve an area with a population estimated at about six million people. Of course, there is a legitimate doubt that switching those people who now get their supply of crude oil from one market area to another would have to be compensated. In all other words, closing the price gap between western Canadian and offshore crude by political means (and against the interests of a large consuming group) only assures continuance of the situation for as long as the party which imposed the controls remains in power and continues to favor this action. We are of the opinion that the only effective way to secure an equal market in Montreal could only be financed by long-term guarantees provided by the Montreal refining companies. This amounts to asking them to guarantee between $300 million and $400 million on long-term bonds on the terms of which neither the party nor the terms of the bond are specified.

Would the restrictions apply to Montreal only?

No. Nor could they only apply to crude oil. If foreign crude were kept out of Montreal, but foreign products allowed in, then the price of foreign petroleum would decrease the more expensive Canadian-based products and gradually push Canada

The claim that the import controls have been an effective way to secure an equal market in Montreal could only be financed by long-term guarantees provided by the Montreal refining companies. This amounts to asking them to guarantee between $300 million and $400 million on long-term bonds on the terms of which neither the party nor the terms of the bond are specified.

But at the same time that the effect of the controls and quotas would have to be spread out to include a great many more people in the Montreal area, exemptions would have to be made in them right from the start. For example, the demand on refiners in the eastern Canadian areas for heating oils and for heating oils than could be supplied by refiners working on Canadian crude. Strict application of an import prohibition would have rendered it impossible to handle the shipping using the St. Lawrence Seaway in 1959, because of prohibitive cost. Strict prohibition of balancing supplies of imported heating oil would have had a significantly inflationary effect on the cost of supplying heating oil.

This points out one of the difficulties of the situation. Controls on crude oil and the refiners operating in the Maritimes would prevent flexibility of supply which is possible when suppliers are free to make good the differences in the price of crude oil by adjusting various products to balance. Even with the vastly greater flexibility inherent in the U.S. situation, experience to date has shown that the import controls have caused tremendous administr-
The part-time sailors who seldom go to sea

They rarely cruise in salty water but members of the Canadian Power Squadrons run the safest little navy afloat. And some could pilot an ocean liner

When Egypt's President Nasser seized the Suez Canal four years ago most Canadians regarded it as a shocking but remote event. For members of the Hamilton, Ont., Power Squadron—part of a national organization dedicated to the safe and skilful handling of pleasure boats—it brought a distinctly personal shock.

One day in September a Hamilton Spectator cartoon showed a family of three rowing up to the local Yacht Club dock, where a sign read "Register here for free lessons in navigating, piloting, seamanship..." The rowboat skipper was clutching two newspaper headlines: "NASSER PAYS PILOTS $1,300 PER MONTH and Pleasure boat owners offered free lessons."

On the local power squadron's next training night 350 people—equivalent to the group's entire membership—lined up in the Yacht Club lounge for the piloting course.

It didn't suggest any widespread sympathy for Nasser, but it did underline the current enthusiasm for pleasure boating, and for the Canadian Power Squadrons. And although Squadron officials politely shook the crowd away, it was for lack of facilities, not condicio. It's not inconceivable that a power squadron graduate could navigate the Suez Canal.

The 42 CPS units in Quebec, Ontario and British Columbia are so highly regarded by the Royal Canadian Mounted Police (who check pleasure boats for fire and life-saving equipment) that their inspectors usually tell CPS skippers, "This won't take long. We know you're met the regulations."

Existing federal government regulations for small boats were based largely on submissions made by CPS. Harbor police in Hamilton, Ont. have taken the CPS basic course in piloting. Four provincial police officers in Barrie, Ont., were ordered to do the same. CPS members even enjoy lower insurance rates on their boats.

The respect is well-earned. The organization spends $25,000 a year, collect-ed from dues and the sale of course material, to send out educational data and give courses on everything from basic seamanship to celestial navigation.

No officer or instructor is paid. All of the 2,742 members, and 564 women associates have passed the piloting course which covers government regulations, boat handling, rope-work, charts and the compass. Another 1,100 boaters will probably qualify this year. A select few have mastered four other complex courses including navigation—ever-referred to as the "N" course—and could, if necessary, guide an ocean liner to port.

Few pleasure boat owners will ever need the "N" course. But with 750 small boats cruising Canadian waters, and several thousand more joining the boating boom each summer, a basic knowledge of boat-handling and navigation is essential. The average boatman, like the average motorist, has a talent for getting into trouble.

One Niagara skipper tore the bottom out of his 36-foot cruiser on a rock shelf in Buffalo harbor, just half an hour after he took possession, because he couldn't read a channel marker. Last summer a woman in a 14-foot outboard in Hamilton harbor asked a CPS member, "How do I get to Trenton?" Trenton is 100 miles across the lake. His impromptu lecture on what can happen to open boats in rough water changed her plans and probably saved her life. And Phil Aggan, a CPS national officer in Hamilton, once found an outboard tangled in weeds; its owner didn't know how to turn off the motor.

CPS members freely admit that they aren't infallible. A British Columbia member headed one night for a Vancouver lighthouse. Two hours later he found himself at Nanaimo, 45 miles away. He'd followed the light on a CPR boat.

Within two weeks last summer, Jack Tatham, head of a Belleville construction company and a full-beded navigator, ran aground twice. His plastic-hulled 31-foot Ultra needed new shafts and propellers and he's still pointing out to fellow members the uncharted ob-stacles he hit.

As the national chairman of CPS admissions ex-Colonel Tatham con-trols the 13-week piloting course with the same army discipline that he used to mastermind the blasting of rock at Gibraltar to build a World War II air field. He sets the yearly exam and has the papers marked in another squadron. Only those getting 90 percent on the 85-question paper can qualify for member-ship which brings with it a certificate and the privilege of flying the CPS flag—a blue and white-striped rectangle inset with a red maple leaf.

CPS rigidly disciplines members who break safety rules. One skipper of a large crusier lost his flag when he travelled "at an unreasonable speed" among a number of small boats.

"If you have the right to fly that flag," says Tatham, "you've earned it."

New members can, if they wish, take any or all of seven other courses, in-cluding seamanship, advanced piloting, junior navigation and the highly-tech-nical navigator's course. Each of these four grade courses brings with it a star, a bar or combinations of both which members can wear on their navy blue blazers. There are also courses in engine maintenance, weather and sailing, which are optional but aren't entirely fills.

"You have to remember," says one squadron commander, "that when something goes wrong with your engine out on the water, there is no corner service station or telephone."

The piloting course merely whets the appetite of most members. Belleville's 35-man Bay of Quinte squadron illus-trates how CPS training turns all manner of canal sailors into rabid enthu-siasts and how, consequently, a squadron grows.
Belleville members study hard in the winter so they can enjoy summer boating in safety.
Somewhere today in a quiet corner of one of the 900-odd public and regional libraries across this land, someone discovered a book. Perhaps it was new, with crisp whispering pages and that tantalizing fresh-ink-and-paper smell. Or an old well-loved book, frayed and furry-edged from handling. It may have been Homer’s Odyssey, or The House at Pooh Corner, or The Case of the Curious Bride. But whatever and wherever it was, there was magic in the moment — for everybody needs a book.

Summertime is no exception. Children, with reading appetites still keen from school, carry armloads of books home or to the summer cottage. Even adults who read little during the year discover that the mind, too, needs a holiday from TV, headlines and office shoptalk.

So for those who have discovered the pure joy of a book, libraries are as much a part of summer as sun and sand. Yet the services libraries can offer are severely hampered by lack of money, space and trained personnel. Three years ago the Canadian Library Association, estimating requirements over a 10-year period, discovered a national crisis: Canada then needed 250 professional librarians and would need 738 more before 1967.

Salaries have been improving, but not enough. The training time required for a qualified librarian is comparable to that of a secondary schoolteacher, but the latter on the average, is paid considerably more.

Two years ago the Canadian Conference on Education pointed out that 83 percent of rural Canada and many urban areas are without public library services, the annual expenditure per capita on public libraries was then 53 cents, yet the CLA’s minimum standards call for an annual expenditure of two dollars per capita for limited library services.
In spite of these obstacles, libraries are holding their own against all competitors: TV, automobiles and lawn mowers. Millions of Canadians use libraries. There can be no accurate count because there are many kinds of libraries and they mean many things to the users.

A library may be an old house on a shady small-town street, a cluttered room over a store, a bookmobile in the suburbs or — and professional librarians long for more of these — the deep-windowed “education centre” with films, recordings, lectures, art displays, and access to a wide range of books.

To certain old and threadbare men, a library is a refuge from the weather and reality. To some housewives it is an escape from suburbia. To teen-agers it is a place to study, giggle and maybe fall in love.

But most of all it is a place to read and for children, in particular, it is a wondrous place inhabited by delightfully improbable characters — Toad, the White Rabbit, The Cat in the Hat and all the rest; a place of retreat when adults become unmanageable. TV will never replace a book; surveys show that it actually stimulates children's interest in non-fiction reading.

When you are very young, a book is a personal thing. "I wasn't going to take books today, but I think I'd better," a Kitchener, Ont., boy told his librarian. "I might get lonesome for them over the holidays." For all those like him, a Massachusetts children's library displays this inscription:

*Books are keys to wisdom's treasure; Books are gates to lands of pleasure; Books are paths that upward lead; Books are friends. Come, let us read.*
By Michael Jacto

W. O. TWAITLS:
PORTRAIT OF A PRESIDENT

Curiosity, which by tradition is supposed to be dangerous for human beings as well as for cats, guided William Osborne Twaitls into one of the biggest jobs in the country. When Bill Twaitls became president of Imperial Oil last May it was the culmination of more than 27 years of what friends call “constant intellectual curiosity.” He’s been asking questions and getting the answers ever since he left school at 14, light wooden furniture and ivory walls, he applies his probing curiously to such projects as pipe lines, multi-million dollar drilling programs, refinery rebuilding plans and marketing. “I get satisfaction from tussling with problems and overcoming them. But more than half the satisfaction comes from seeing people develop,” he says. “Imperial, like most companies, is made up of people. Part of the job is to make the most of their talents; help develop their skills and inclinations to the benefit of all concerned.”

Twaitls’ heavy working day begins before 8:45 a.m. and seldom ends before 5:15 p.m. (half an hour later than his employees). At work he smiles easily, tags casually at his ear, emphasizes a point with his finger. But underlying the relaxed tone is what a colleague describes as “a pleasant dynamism.” “It’s easy to get along with but he demands all your ability,” says another.

A long distance call comes in from Vancouver. A brief discussion, then a sharp decision. Two colleagues pull up chairs. Obviously from their tone, this is important. Twaitls reaches for cigarettes in the bookshelf behind him; must think about it.

Of his mental process he says, “Some people can think best in a shower. Where you think is unimportant. The important thing is to know what you are doing with your time. I do it often. It keeps me in line.”

There are few waste moments in Twaitls’ well-balanced life. He spends as much time as possible with his family but “this is always insufficient.” Sports are an important part of his schedule. (“Physical condition is mighty important.”)

At university he played intercollegiate hockey and football. Nowadays, he antes with badminton, skating, tennis and golf. If the sky has been tough, which is normal, he goes out to the Renfrew golf club where he is a past course champion and has a four handicap. “You can’t think about your problems when you’re trying to hit that ball. For me, sports are the ideal way to relax.”

“If golf as much as he does but I have to play a pretty fair game to keep up with him,” adds his wife, Frances. Her handicap is 20. In the winter, her husband puts on the living room windows. In spring he holidays in the south where he can get early golf.

Even their black Labrador, Rex, gets into the golf set. Once the family (including daughter Judy, 21, an arts student at the University of Western Ontario, and Sherry, 17, at Haverford College) had a summer cottage near a resort golf course in Muskoka. Twaitls trained the dog to retrieve practice drives—which worked admirably until he began fettling other people’s golf balls.

Around home, says his wife, Twaitls “doesn’t putter about the kitchen stuff- ing at the pots. Like most men, he likes he is a great barbecue cook but that’s the limit of his culinary talents.”

Sometimes he plays the piano, modestly by ear. He likes all kinds of music, particularly modern piano as played by Andé Prev, Roger Williams or the late Art Tatum. Or, he reads biographies and historical fiction—quickly and often several books at a time. He rarely watches TV but likes sport shows (“I get a kick out of hockey. I’d be fed if I didn’t consider we sponsor the pro games”) and thinks there should be more educational—entertainment shows. He tries to get eight hours sleep a night. (“I can’t exist on five like some people.”)

Like an increasing number of exec-utives, Twaitls has little time for private reading. Irresistibly, travel—an essential 40 percent of an oil executive’s life—and community commitments eat into evenings and weekends. “There are so many good causes today you have to be careful not to spread yourself too thin,” he says. He is a past national president of the Canadian Arthritis and Rheumatism Society and is active in United Appeal, university fund-raising campaigns and church work. Twaitls believes that a company must associate itself with the general life of the community and the economic life of the country. But with these must go a dedicated interest in one’s business. Twaitls’ dedication to the oil industry was acquired. An honours commerce student from University of Toronto, he was all set for further economic research at the School of Economics in Geneva in 1953. But it was depression time and he couldn’t afford it. At the urging of Victor Ross, then Imperial’s senior vice-president, he joined Imperial Oil.

Twaitls’—born in Gaté but then living in Sarnia where his father was an executive of a brass fittings company—knew nothing about the oil business. He started at the Sarnia packaging plant on Imperial’s first training program. Immediately his curiosity was aroused. He passed so rapidly from job to job that an old-timer told him, “Any time I see a young fellow being switched around like you I’d say he was on his way out.”

So he was transferred to the tech- nical and research laboratories. In 1959 he moved to the staff of the manufacturing technical committee for five years. At the same time he became associated with the development of Polymer, the governments-owned rubber plant set up during the war. He moved to Toronto in 1945 as assistant economic co-ordinator, later became assistant manager of Imperial’s first supply department and subse- quently manager of the newly-formed co-ordinations and economics department.

In 1949 he went to Calgary to the management group of the new producing end of the business. A year later he was general manager of producing and a director; in 1952, a vice-president.

From this varied career, Twaitls has drawn some observations: “To progress in industry today, a young man must or acquire a basic knowledge of both the technical and economic aspects of the business. Underlying this, the prime requisites for a business career are: a genuine interest in the human factor, imagination, and curiosity.”

“I distinguish between uniformity and conformity. I believe in individualism but I leave it up to the person if he wants to wear the same clothes and be- have in the same manner as his neighbor. Uniformity is a much worse trait. It brings everyone’s thinking to the same level. The bright fellows have to buckle down to the mediocrity. Uniformity kills development. The antithesis is some sort of self-expression.”

“People think I say that oil has a bright future only because I’m concerned with the industry. That isn’t true. Can- ada’s oil future is very bright. Over the next 20 years we will need all the hydro- carbon we can get. But we must look on that future soberly and develop crude which is easily got to markets before we rush into remote areas for reserves.”

“There is a danger today of business people thinking they are just part of an assembly line. To counteract this, management must find ways of keeping vitality in industry. Our industry is lucky in this respect. An oil man has con- tact with all levels of the public and govern- ment. There are always new fields of knowledge to explore.”

In a sense, this last remark is a state- ment of Twaitls’ philosophy—a philos- ophy that is evident in everything he does. Recently friends advised him to go south for long hours in the sun.

“That sort of vacation wouldn’t do for us,” says Frances Twaitls. “We like to be doing things on our holidays.”
WHO SHOULD TEACH OUR TEEN-AGERS TO DRIVE?

By Ron Kenyon

Fifty years ago the great moment in a boy's life was when Dad first gave him the reins of the family's best car. It was perhaps only an historic development that, when motor cars replaced the horse, boys would drive prestige from driving the family car—and would be taught to drive by their fathers.

But today, with 250 horsepower under the hood and no horse-sense, the car is lethal in the hands of many beginners. There are an estimated 350,000 licensed young drivers in Canada between 16 and 18 years, and a further 150,000 coming along each year—the product of the nation's post-war baby boom. Most of these drivers will be boys—not judged old enough to vote or take alcohol, yet able to get a license in most provinces at the age of 16.

At present the majority are self-taught or home-taught drivers. Yet drivers between 16 and 18 years, according to insurance statistics, pile up 15 accidents every million miles they drive, as compared to only 1.5 accidents for adults in the 45-year age group. Boys between 16 and 18, who comprise only five percent of drivers, are involved in more than 12 percent of all accidents. Obviously, the proper driving instruction of young people has become vitally important. It poses one of the most controversial traffic safety questions of our time: How and where should driving training be taught and, more specifically, should it be taught in the schools?

High schools have so far done more than any other single agency towards finding a solution. In the United States, 10,000 schools now offer driver training. In Canada about 100 schools have such programs and more are being introduced every year.

Although in most provinces some schools give driver training, so far Saskatchewan, Ontario, Nova Scotia and British Columbia are most active. The cost of the course varies considerably but, according to the Ontario Safety League, a good round figure is $30 per student. Cars are usually supplied free by automobile dealers.

The curriculum of courses varies, too, but all good courses provide for both classroom instruction and "behind the wheel" training. In Vancouver, for example, students receive 12 hours of classroom work, 12 hours of observation in a car, and eight hours behind the wheel. Saskatchewan students spend 28 hours in the classroom and eight behind a wheel. The textbook recommended is "Spaansvolk Driving" published by the American Automobile Association.

To support the principle of high school driver training, insurance companies, which normally charge higher rates for young drivers, are beginning to give preference to those who have taken these or other approved courses.

Educators agree that school-trained drivers have fewer accidents. In Canada, the Saskatchewan Collegiate Institute and Vocational School was the first to introduce driver training. R. J. Hoadley, the principal, says: "We are well pleased with the results; derived from this course in terms not only of fewer accidents but because of the splendid attitudes towards driving responsibility which the course fosters and promotes."

William White, the Kiwanian driver-training instructor, reports that, of 1,200 students trained, only one percent had serious or violent accidents. And there have been no fatalities in the course.

In Vancouver, where driving training is carried out in all city secondary schools, a survey of 800 students with two years' driving experience showed an accident and violation rate of about one-third that of the over-all average.

W. B. Main, director of the Saint John, N.B. Vocational School, has been interested in driver education since 1933. "Records we have kept over the years," he says, "indicate that serious accidents are principally in unknown quantity so far in the graduates of this type of training are concerned."

Godderech, Ont. Collegiate Institute has eight courses for young drivers and principal A. W. Scott knows of only one repeatable accident among graduates.

Similar experiences have been recorded in Ottawa by Lt.-Col. E. W. Piggott, chairman of the sub-committee on high school driver education of the Ottawa Area Safety Council. There, second-year students provide driver education. So far, graduates have had one ticket for overspeeding in parking.

No Canadian school has gone so far as the U.S. For example, in a Detroit senior high school for 1,200 people, driver education is part of the vocational program, along with home-making, art, drafting, printing, mechanics, shop and auto mechanics. There is a special 20 by 50-foot driver education room (six cars) with auto mechanics where teen-agers, bringing their own rods for maintenance with double doors that lead onto the street, permitting a car to be driven in for studying.

According to Earl Alligator of the AAA, is 17-year experience with driver training in high schools has shown definite benefits. About 1.5 million American students completed training at a cost of about $34 each and an estimated saving in accidents of $317 million. For every $1 invested by the schools, he says, $2.60 has been returned in the form of accident prevention. In addition, an estimated 1,400 lives were saved and 30,000 injuries prevented. Their surveys show that training reduces traffic accidents by as much as one-third. After eight years of driver training in high schools in one state, annual deaths in the 15 to 25 age group dropped from 0.3 to 0.2. Injuries in the same period were cut from 19,642 to 1,460.

In 1957 the National Education Association made an intensive study of 14 state and 18 city programs of U.S. driver education. High-school-trained boys showed a 30 to 50 percent better performance during their initial period of driving, compared to drivers who had both groups gained more experience.
they leveled off: that is the untrained boys improved gradually, if they lived long enough. Yet not all Canadian educators are whole-hearted in favor of driving being taught in the schools. Some school boards, according to a Canadian Education Association survey, give no support. Some of those surveyed—Moncton, Oshawa, Scarborough and St. James in suburban Winnipeg—tried and abandoned it.

Most educators agree on the principle of driver training but differ as to the best possible form of administering it. They are extremely anxious that it should in no way interfere with regular curricula. Therefore most say that, if introduced

at all, it should be a voluntary course, outside regular school hours.

"The schools have enough to do with their own particular work, which is education rather than training," says H. M. Grant, assistant superintendent of schools in Moncton, N.B. "We have plenty of room for improvement in that job. There is a trend towards cluttering the schools with every training and education job which has often been done poorly or not done at all, by people, including parents."

Furthermore, says Grant, driving training courses cost money. Why should everybody pay, through taxation, for the training of a relatively small number of privileged youngsters? Parents who wish their children to drive cars could pay for an adequate course of training.

"Teen-age people go hunting nowadays," he says, "shall we put in a course in safety for them?" Speed-boating is growing as a popular sport. How about that?"

While not all educators share exactly the same view, most agree in broad outline. The school's duty has been to produce well-rounded citizens but not to usurp the jobs of other agencies and the home. But W. Arch Bryce, executive director of the Canadian Highway Safety Council, maintains there is no comparison between driver education and other so-called full subjects.

"The young driver may look forward to a driving career of 64 years," Bryce says. "This carry-over value cannot be equaled by such time-consuming subjects as football, basketball, archery, riflleshotting and square dancing."

A student exposed to proper training in "the attitudes necessary for resourceful, accident-free, considerate driving is also absorbing citizenship training which cannot be given in any direct way," he adds. The teaching of attitudes is as important as the teaching of skills.

Goderich school principal Scott agrees: "The instilling of correct attitudes involves far more than the training to drive. You could probably train a chimpanzee to drive a car."

Officials of the Saskatchewan Highway Safety Council feel that their biggest problem in fighting traffic accidents is to develop good "driver attitudes."

From psychologists they learned that it is easier to teach a "good" attitude than to "unlearn" a bad one. Therefore when they were given $100,000 by the provincial government insurance office to spend on driver training they decided to start where attitudes were still unformed—in the schools.

In most schools where driver training has been introduced, there has been a compromise between public need and school tradition: it is not included in the curriculum, but is offered as an "extra" in spare periods or after hours. In Ontario, the department of education has approved driver training courses for secondary schools if given outside regular hours. Some 35 Ontario secondary schools provide training on this basis. In a few, such as Kitchener, students may train during a health period or physical education period. Grants recently offered by the department of education in Nova Scotia carry the proviso that the course must not conflict with "the regular academic classroom schedule."

A second objection to driver education in schools is that such courses can't reach enough students: the licensing age in most provinces is 16, so is the school-leaving age. The courses are voluntary: this also limits their effectiveness. In Vancouver, only 12 percent of students are at present enrolled, yet courses are readily available. Saskatchewan's program is administered by the Highway Safety Council. General manager Leonard S. Bowman estimates that 1,200 students will have been trained by the end of the current school year.

Yet many students are missed, he says, and unfortunately, "those who drop out of school learn to drive somewhere and seem to get jobs involving transport."

Kitchener authorities estimate that school driver training programs at best could train "only 50 percent of the youngsters or less." This view is shared by educators in Alberta where only about half of the 73,941 persons between 15 and 19 are enrolled in schools.

The case for and against driver education in high schools was summarized recently in the report of Alberta's Royal Commission on Education. The Commission wholly backed the idea of better training for young drivers, noting that half of the 3,205 people killed on Cana- dian roads in 1958, died as the result of actions of drivers under 24. At the same time, it tossed the ball back to the community: the best that schools can, or should do, is provide voluntary extracurricular courses.

Many organizations and agencies—service clubs, chambers of commerce, youth training groups, army, air and sea cadets—can participate in a program of public driver education including that of the school-age group, the Commission reported. These agencies, including depart- ments of the government, could be more aggressive than at present if the crisis on the highways is of the magnitude claimed... The results of such efforts, involving many age-levels and groups would, in all probability, be more effective than the simple act of planting the program in the schools."

And Bryce of the Canadian Highway Safety Council responds: "The schools, however, object to outside interests absorbing student time. Is it not better to have this matter under the control of people who know how to do it and who can regulate its operation...?"

Probably no other safety problem today has as many pores and signs as this one—or is more in need of a Solomon to find the solution.
Two members of Imperial's board of directors have become vice-presidents: Vernon Taylor who was appointed to the board two years ago and L. D. Fraser, a director since January 1957. Other vice-presidents are J. A. Cogan and Trevor Moore. To fill the vacancy created by J. R. White's resignation, Dwight S. Simmons, general manager of the manufacturing department, has been appointed a director.

Mr. Taylor, originally from Winnipeg, joined Imperial in 1937 as a petroleum engineer. Previously he had been a geologist working mostly in the Turner Valley field. By 1946 he was operations manager of the western producing division in Calgary and was in that post when Imperial drilled a well in the first Leduc well in February 1947. He later was operations manager in the executive offices in Toronto but was back in Calgary by 1951 as management assistant. In 1955 he became manager of the western producing division. Mr. Taylor was chairman of the board of governors of the Canadian Petroleum Association when he became a director and moved to Toronto.

Exempt for one year as assistant secretary, Mr. Fraser's 32-year career with the company has been in marketing operations.

A native of Ottawa, his first job was as a junior clerk in the Quebec marketing division in Montreal. He was resident manager in Ottawa and held various positions at head office in Toronto. By 1947 he was in charge of fuel oil and barrel sales. Three years later he became manager of the Manitoba marketing division, returning to Toronto in 1952 as general manager of the marketing department. He held this position for five years before his appointment to the board.

Born in Sarnia, Mr. Simmons joined Imperial's engineering department there when he graduated from Queen's University in 1932 as a mechanical engineer. In that department he worked on major refinery projects in Halftex and Regina and, during the war, spent three years with the St. Clair Processing Corp., becoming assistant manager. He was assistant manager and manager of the engineering division when new refineries were designed and built at Edmonton and Winnipeg and, in 1951, became general superintendent of Montreal East refinery. A year later he was appointed an assistant general manager of the manufacturing department and, in 1954, general manager.

John A. Armstrong, who has had 20 years' experience in various phases of oil production, has been appointed general manager of the producing department. He succeeds Vernon Taylor.

Mr. Armstrong comes from Dauphin, Man., and holds a degree in geology from the University of Manitoba and another in chemical engineering from Queen's University. He joined Imperial in 1940 as a rodman-geologist at Esterhazy, Sask., and later was seismic interpreter in Oklahoma, Ecuador and with Imperial in Calgary. He became manager of the Edmonton exploration division when it was formed in 1951 and two years later was appointed assistant divisional exploration manager in Calgary. Since then he has been assistant manager of the western producing region and spent a year in New York with Standard Oil Co. (N.J.).

New head of Imperial's manufacturing department is Ronald W. Dunlop. He succeeds D. S. Simmons and brings to the position 33 years' experience in oil refining and engineering.

A native of Hamilton, Mr. Dunlop attended the University of Alberta and later the University of Toronto where he graduated as a mechanical engineer. His first job with the company was as a draftsman at Calgary refinery, where he later became mechanical superintendent. In 1938 he transferred to the engineering division at Sarnia but during the war was loaned to the St. Clair Processing Corp. Returning to the engineering division he became assistant manager in 1950, later manager. He was appointed an assistant general manager of the manufacturing department in 1956.

George R. McMillin leaves his post as Sarnia refinery manager to become an assistant general manager of the manufacturing department. Except for one year with International Petroleum, at Talara, Peru, his 27 years in the oil business have been spent at two refineries, Halftex and Sarnia. He started as a lab assistant in Sarnia in 1933 after graduation from the University of Toronto in chemical engineering. He spent the war years at Halifax, becoming assistant refinery superintendent. In 1948 he returned to Sarnia as supervisor of the operations analysis section of the engineering division. In 1950 he transferred to the refinery, eventually becoming its superintendent and, in 1954, went to Halftex as refinery manager. He returned to Sarnia and his last position in 1960.

W. J. "Bill" Beynon succeeds Mr. McMillin as manager of Sarnia refinery. His new appointment came 27 years after he started there as a junior chemist, following graduation as a chemical engineer from the University of Toronto.

Since then he has served as a chemist with the Tropical Oil Co. in Barranca Baja, Colombia, worked on production control at Calgary refinery, been assistant superintendent of Regina refinery and held two posts on operating committees of the manufacturing department in Toronto. In 1953 he became assistant superintendent of Sarnia refinery and two years later, assistant manager. He held that position until his recent appointment.

E. L. Moriaty, manager of the Saskatchewan marketing division for four years, has been appointed manager of the new Prairie region. With headquarters in Edmonton, he will supervise marketing operations in Alberta, Saskatchewan and Manitoba.

Mr. Moriaty's 30 years with Imperial have been spent in the engineering department, his first job being salesman in his home town of Toronto. He was in Ottawa for 11 years, seven of them as district manager for Ottawa and northern Ontario. In 1948 he returned to Toronto to become merchandise coordinator of the Ontario division, was appointed division sales manager two years later and spent four years as co-ordinator of Imperial's industrial and commercial sales before going to Saskatchewan division in 1956.
Two years ago a writer visited suburban Edmonton's Meadowlark Park and asked a householder, "Where do I find Don Getty, the Eskimo quarterback?"

"There's a Getty lives down there," said the man, pointing out a green-and-white ranch-house, and added in genuine amazement, "You mean that's Getty the quarterback? I didn't think he even went to football games!"

Which was a fair commentary on the quiet, double life of Donald Ross Getty, a football star who has neither time nor inclination to play the role of Saturday-afternoon-hero.

Around Meadowlark Park, Getty, a long-muscled, deceptively slim-looking 190-pound six-foot-two, could pass for any suburban businesman—which he is. Each morning, in conservative business suit, briefcase under arm, he waves his wife and two small sons goodbye, and drives to his full-time job in the contracts department of Imperial Oil's producing division in Edmonton. But throughout the six-month football training...
and playing season, Getty is also quarterback for the Eskimos in the Western Interprovincial Football Union. As such, he’s had the enviable task of matching talents with the Eskimos’ Jackie Parker, twice voted the outstanding football player in Canada. Parker was first string quarterback when Getty joined the Eskimos five years ago. Today he shares the job with Getty. This is no discredit to Parker, who excels at any backfield job. (“I get along with Don just fine and like working with him.”) But it’s a tribute to the quiet concentration of Getty who, scotched the prevailing myth that Canadians can’t match foot-
ball passes with the best American imports.

“Concentration” has been the keyword for Getty throughout most of his 26 years. During his boyhood, his family migrated in turn through Montreal, Ot-
tawa, Toronto and London. But Don completed Grades 5 to 8 inclusive in two

years, reaching collegiate at age 12. For two years he longingly watched the ban-
tam football team, too young to play himself, then plunged into the game the hard way-blocking and tackling. By the time he reached the University of West-
ern Ontario, he’d become a promising quarterback.

There he faced a now-familiar situa-
tion: the UWO Mustangs had a good
quarterback. But Getty waited his chance, won the job and held it for the next

three years. In 1955 he graduated in honors business administration, known
as a good all-round quarterback and a particularly “quick study.”

Three professional clubs wanted him. Getty chose Edmonton. This pleased
Frank “Pop” Ivy, then the Eskimo coach, because Getty was “the Canadian
we’ve been looking for to become a good split-T quarterback—a job that takes
concentration, agility and brains.”

It was not, however, a passport to

stardom. Getty played two full games that season when Parker was ill, and
Eskimos won both. But for the most part he warmed the bench, or went in on
defense, or offensively when it no longer mattered.

Getty watched, waited, listened; quiet
to the point of coolness in the dressing
room; discussing problems with Parker
(who’s his roommate on the road); al-
ways fiercely concentrating on the game.
It was then that he developed the stiff
schedule he maintains in season: up at
7 a.m.; off to work by 7:40; lunch at the
office (or at the playing field if there’s a
noon hour practice), a four-mile drive to
Clarke Stadium after office hours; and
workouts until perhaps 9 p.m.

This 14-hour day leaves him scant
time for his children, but, says his wife
Margaret, “he makes it up to them in the
off season. And I won’t let him wash a
dish or do anything else around the
house. He’s already doing two full-time
jobs.” Often he walks away the tension of
a game with his wife until two or three
a.m.; going over every play with her.
(“No fooling, she knows her football.
When I play a bad one, I’ll hear about
it!”)

In due time, Getty’s patience and con-
centration paid off. Late in 1956 Ivy sent
him in to start the crucial second game
of a three-game playoff with Saskatchewan Roughriders. Eskimos had lost
the first game. It was a tight situation—his
first starting role in a critical game—and he
was still something of an enigma to
his teammates. But in the first huddle,
fullback Norm Kwong—who with
Parker and others had been quick to
understand and appreciate the quiet
quarterback—said solemnly, “Gentle-
men, I want to introduce a friend of
mine, Mr. Getty.”

The subsequent burst of laughter was
good for the team and Getty. They won
the game and the series. In the Grey Cup
final, Getty quarterbacked the entire
game—an almost unheard-of feat for a
Canadian—with the veritable Parker
playing halfback. Edmonton won that
game 50-27.

Even after that his neighbors were
slow to discover the star in their midst.
But last year Getty was named “out-
standing Canadian football player in
the west.” By now, fans everywhere are
well acquainted with Kwong’s friend, Mr.
Getty.

Jackie Parker (left): “Don was probably the
best passer last year in the western conference”