NAVAN

AND IRISH MINING

DOCUMENTATION of an £850,000,000 ROBBERY.

Resources Study Group

...AND RSG IS NOT ALONE!

SINN FEIN SUPPORTS NATIONALIZATION DEMAND

"...the Irish people should demand:- The ending of the situation whereby foreign investors are allowed to milk the wealth of Ireland for the benefit of the shareholders of these imperialist companies, and in particular the nationalisation of the mining industry in Ireland (without compensation."

Tomas MacGiolla.

UNION OF STUDENTS OF IRELAND DEMAND NATIONALIZATION.

Congress condemns the exploitation of Ireland's mining resources by foreign companies, which it believes to be against the interests of the Irish people. It calls on the Government to nationalise the mining industry and supports the investigation of exploitation of Ireland's resources. Congress supports any activity by those groups who are defending the rights of Irish workers against exploitation by foreign mine owners and entrepeneurs.

The People's DEMAND

NATIONALIZATION without COMPENSATION.

LABOUR PARTY ACTS

A motion which committed the Labour Party "as an essential feature of any Government in which it participates to the establishment of a State board for the exploitation and processing of the country's ore, gas and oil deposits and the nationalisation without compensation of all these enterprises, whether Irish or foreign-owned," The motion was passed by a large majority.

EVEN THE FIANNA FAIL GRASS-ROOTS SPEAK OUT

Three university cumainn of Fianna Fail, U.C.C., U.C.D. and T.C.D., issued a statement at the nationalisation of Irish mines.

They claimed this was necessary not just from the point of view of profits gained, but in order to gain control of our mineral resources, which now hold the potential of an industrial revolution for Ireland.

INTRODUCTION

It is necessary to return to the plantations of the 17th century in order to establish a parallel comparable in scale of exploitation to the present robbery of Ireland's mineral wealth. Even then, however, the comparison proves inadequate. The exploiters of the 17th century were vehemently resisted, whilst the rulers of 20th century Ireland, North and South actively assist in the plunder of this country's human and material resources. If the original Resources Study Group (RSG) study was an indictment of those who legislate in the name of the Irish people, what follows surely amounts to a conviction: -

- 16,000 square miles of Ireland from Cork to Armagh forms a metallogenic province. Significant base metal deposits are therefore geologically possible throughout half of the entire land mass of Ireland:

- in the year that has elapsed since the publication of the original RSG mining document, the known reserves of zinc/lead/ore have increased from 21,500,000 tons to over 120,000,000 tons (See chapter 1):

- Ireland now possesses the largest zinc/lead mines in the world at Navan, the largest underground zinc mine in Europe at Silvermines, the largest producing lead mine in Europe at Tynagh, fifth largest mercury mine in the world and probably the most profitable mercury by-products mine at Gortdrum, one of the most important sources of magnesite in Europe, and the most profitable barytes deposit in the world:

- Ireland's mineral wealth, which by right belongs to the people of Ireland (all of them), is at present controlled and owned by a few multinational corporations in consort with a handful of gombeen Irish. The major part of the shares of Tara Exploration and Development Co., are held by four individuals and their associates. 30% of the remaining shares are held by North American interests:

- As of March 1972, the profit forthcoming from Ireland's known mineral reserves amounts to £850,000,000. If land were valued at £200 per acre, this would be the equivalent to the usurpation of 4,250,000 acres of Ireland's land *(the entire area of the 6 north-eastern counties of Ulster amount to less than 4,000,000 acres!):*

- The gross metal value of the known mineral deposits amount to £1,769,949,000 *(one billion, seven hundred and sixty-nine million etc)*. By the time that the crude metal is moulded into consumer goods (such as automobile parts etc), the wealth generating potential of these minerals reaches the gigantic sum of fourteen billion pounds (£14,000,000,000). In 1969 the total production of the 26 counties was only £1,460,000 (£1.4) (£1.4 billion) i.e. one-tenth of the wealth generating potential of the known mineral resources;

- given the present structure of the mining industry in Ireland, only £371,000,000 will enter the Irish economy over the life of the known mineral deposits - i.e. 20.9% of the gross metal value (smelter output) or about 2.5% of the wealth generating potential (see chapter 5.). And this is called development!

- Given a system of production that allows 97.5% of the wealth generating potential of Irish mineral resources to leave the country, wh can argue that Ireland has a developed or developing economic structure?

- Given a system of production that allows 5% of the population to own 71% of the wealth, who can argue that this is a democratic society?

Does not the substance of freedom demand economic as well as political democracy? Does not freedom demand the greatest possible utilisation of the counrty's natural resources in order to liberate Irish people from poverty, bad housing, continuous high unemployment and inadequate educational facilities?

The Resources Study Group asserts that it does, and consequently demands:-

1) Nationalisation of the mines and ancillary industries without compensation - except for capital investment by mining companies which has not already been regained from profits.

2) The establishment of a state exploration/mining/metallurgical company to extract, smelt, process and market the mineral wealth of Ireland.

3) The establishment of a State company to uncover and develop the natural resources of the country, both marine (including all oil and gas), and on the land.

SETTING THE RECORD STRAIGHT

As the mining companies become increasingly isolated and faced with widespread demands for nationalisation, the companies are following the predictable paths of multinational corporations operating in countries where the people begin to understand the exploitative nature of their activities. The usual techniques are the establishment of subsidiaries with local names *(Quigley of Europe)*, the cultivation of the local media and the press and a variety of meaningless concessions which are significant in relation to the extent of the exploitation which takes place. An example of this is the promise of £500,000 to the Drogheda harbour authorities in order to build up the port so that Ireland's mineral wealth can be exported thus depriving people of the potential benefits of that wealth (see chapter 5 on Exploitation or Development). Other examples are to be found in the £500s cheques presented to nuns in Navan for a school gymnasium and to a local GAA club! Mogul of Silvermines has not been as cunning as it has claimed £1½m. from North Tipperary County Council for damages arising from an explosion, which in the main consists of compensation for lost production. No doubt they will change their approach in time.

The Tara/Northgate group felt itself compelled to *"set the record straight and dispel some misconceptions."* Thus last April, it produced a booklet on Tynagh (operated for the group by Irish Base Metals) and on Monday 13th March 1972, a hurried press conference was called to launch another "refutation". The Tynagh booklet is dealt with in the section on Tynagh, Chapter 1. What follows here is RSG's refutation of the main points raised in Tara/Northgate's latest publicity stunt, which was handled by Michael O'Reilly Associates, a Dublin public relations company.

The 'fluctuating' base metal price argument.

"The mining industry has to face the unpredictable behaviour of metal prices...In the past two years there have been severe fluctuations in metal prices...(zinc, however, hasbeen the exception to prove the rule...)".

A more precise account of the behaviour of metal prices *(i.e. the base metals; lead, zinc, tin, copper)* is to be found in the"Mining Journal" 7th Jan 1972." "Two slumps and some ten years from now... the metals trade may be contemplating minimum prices of around £500 per copper, £120 for lead, £150 for zinc and £1,800 for tin. In between there will be two sets of 'highs', but what these prices will prove to be is anybody's guess."

According to the Mining Journal, each decade sees two troughs and two peaks in base metal prices. Each successive low point is above the previous low point. Thus the 1970/71 base metal trough was *"a good deal higher than the low point touched in 1953, 1957 and 1962, and also show fair margins over the 1967 lows..."* All that is unpredictable is the height to which base metal prices will soar. By March 1972, Zinc was selling at £150 per ton and lead at £120 per ton. Even the mining companies had to point to the relative strength in zinc prices (thus proving the rule false!) - in the trough years of 1970/71. But they failed to point out that of Ireland's known base metal reserves (March 1972), zinc was

by far the more important with approximately 9,500,000 tons of pure metal as opposed to only 2,400,000 tons of lead and 105,000 tons of copper (pure metal in both cases).

EXAGGERATED COSTS:

"Capital costs for mine development to date amounted to more than £33 million, which when added to exploration costs, makes up to a total investment of £45 million in the industry." (p2).

A. Capital expenditure:

In a cover entitled "Irish Mining; Statistical Highlights" *(which accompanied the Tynagh Publication of April 1971)*, the capital investment in the mining industry up to 1970 was given £23.2m. The Resources Study Group challenges Tara/Northgate to say where the additional £10m was spent during 1971. *(See also chapter 1, Tynagh).*

B. Exploration expenditure:

In October 1971, it was reported in "Technology Ireland" (p.14) that a minimum of £6½ million was spent on exploration since 1957 *(and this is basically the same as saying that since 1965, little or no exploration took place in Ireland during 1955-57.)* In the "Irish Independent" mining supplement (6th Nov 1971), a total expenditure of £8.6 million was given as the aggregate figure for past exploration programmes. Again, the RSG challenges the spurious figures given by the mining companies.

The High risk argument:

"To date (Tara) has spent just £1.4 million on exploration alone...On top of this, Tara to date has spent £1.8 million on plant, machinery and property acquisition. All of this money, over £3 million, is 100% risk capital.." (p.4).

According to the Tara annual report for 1970, the cost of the 8 year exploration programme which "led" to Navan was £630,000 - less than half the amount claimed by Michael O' Reilly Associates on behalf of Tara/Northgate. Thus £770,000 was expended in 1971 in determining the size of the Navan orebody. Of the remaining £1.8 million, the greater part has been spent on land acquisition at Navan- land that was bought after underlying minerals had been prove. With the Navan orebody generating a net profit of £486 million over its life *(and that from the extractive and smelting stages only)*, the return on exploration expenditures can be expressed in tens of thousands of per cent. *(For further information on exploration see, Chapter 1 on Navan and also each of the other mines. Also chapter 3 on Exploration).*

The Great loss of exploration expenditures argument:

"...Before Tynagh was found, less than 20 concerns were prospecting in Ireland. This number rocketed to over 70 after the discovery, but since then it has fallen off to around 36 in 1971. The intervening years have been the survival of the fittest, with heavy losses being suffered by many concerns. Only some of the larger concerns have survived, many of them also carrying heavy losses..." (p.1.)

There is a fairly simple answer to this in that the projected profits from the minerals found must be set against the total exploration expenditure. While profits amount to approximately £850 million exploration costs about £8 million! The return on exploration expenditures is over 100 times the initial outlay!=

In 1961 the DECD published a booklet (J.F. McDivitt - "Prospecting for mineral ores in Europe") from which the following is taken *"The government exploration agency in Turkey (M.T.A.) reports the value of mineral deposits discovered in its work is more than 600 times the amount which the government has invested in such exploration. ...one orebody which*

was discovered in Portugal is estimated to have a value of more than 500 times the cost of all geophysical work which had been done in the country over 5 years..." (p.32)

The low-profits argument:

"The profits from the producing mines have worked out at £21 million..." (p.2)

The most important thing about this statement is what is omitted.

Firstly, Tara/Northgate is only talking about lead/zinc/copper/silver mines. It has not taken the huge profits from the barytes, dolomite/magnesite and gypsum mines into consideration.

Secondly, Tara/Northgate are only talking about the profits from the extractive stage of mining. No mention is made of the profits in the primary and secondary processing stage, profits which arise from Irish ore being processed in France, Belgium, Germany, America and England.

Thirdly, Tara/Northgate fails to point out that the Irish mining industry is only in its infancy and that the amount of pure metal already extracted is a little over 1,000,000 tons pure metal compared to the 12,000,000 tons known ore reserves (March 1972).

Size of Navan

"Exaggerated estimates of the value of the ore in the ground at Navan have found their way into print. Some amateur efforts to quantify the Navan orebody are completely misleading and simply regard ore in the ground as money in the bank..." (p.4)

As Tara have not released the assay results for the 125 holes drilled since October 29th 1971, it is difficult to obtain precise figures on the orebody at Navan. However, established mining correspondents have estimated the size from the pattern of drilling being followed and these figures confirm RSG's estimates.

However Tara/Northgate have attempted to confuse the issue by suggesting that some unspecified amateurs regard ore in the ground as money in the bank. The difference between recoverable metal and an ore deposit is made explicit in Chapter 1. In Chapter 5, the gross metal value of recoverable metal is calculated at £1,045,000,000. Net profit *(ie the surplus that remains after all expenses have been deducted from the selling price of the metal)* is put at £486 million for the extractive and primary processing (smelting) stages of the Navan orebody.

Ownership:

"Many allegations have been made about the "foreign ownership" of these companies (Tara/Northgate). All of the Directors of Tara Exploration and Development are Irishmen."(p

Northgate's own publication "Tynagh; a case history of mining in Ireland" puts the percentage of total dividends paid to foreign shareholders at 80% of the total dividend payments. Of the remaining Northgate shares 20% are held by four individuals *(P.Hughes, M.McCarthy, M.Gilroy and W.Armstrong)*, who control the major proportion. Thus Northgate is neither Irish nor democratic. Tara has a greater concentration of share ownership than Northgate with the same four individuals *(and few associates)* holding the largest shareholding. The total undemocratic nature of Tara's ownership was illustrated during the summer of 1971 when 500,000 Northgate shares were swapped for 400,000 Tara shares. *(See chapter 1, for more information on this swap.)*

"Nothing came of it"

On p.9 of the O'Reilly Associates booklet, some information is given on the "difficulties" of finding a mine and getting it into production. Three companies are cited as having

lost a lot of money in establishing that orebodies exist in Keel, Co. Longford, the Glen of Aherlow and Allihiss, Co. Cork. The most important point is that nothing has come of these finds, yet! In Jan 1968 M.V.O'Brien, Managing Director of Tara Exploration, pointed out that:

> "the tabulated vital statistics for the life of the Abbeytown, Co. Sligo lead-zinc mine are a model of what we would wish to see published for the engineering aspects of mineral development and exploration. It is extremely relevant to be reminded by the Abbeytown figures that with good engineering a small mine on low-grade ore *(250 tons/day with about 4 per cent lead plus zinc)* could survive economically for a decade. There must be scope for further smaller mines in Ireland in the 1960s and 1970s as a supplement to the larger producers, especially where the latter can provide some of the supervision, technical services and ore treatment for the smaller units." *(Transactions of Section A of the Institution of Mining and Metallurgy, Vol.77 1968).*

Thus the Tara/Northgate approach is shown not to be valid by one of their own executives!

Other refutations

"Nationalisation would scare off foreign capital."

As is made clear in this study, not only does Ireland not need this investment, *(since ample resources are already available)*, but because of the resulting loss of the ability to run and develop the country in the interests of the people this type of investment is not wanted.

In the period 1961-70, the capital inflow into Ireland was £85m. in "direct" *(ie employment generating)* foreign investment. However it cost the taxpayer *(through investment grants)* £30 million to subsidise this inflow leaving a net inflow of only £55m., and that over a period of 10 years. This sum is far below the projected £850 million profit from the mines alone. This is but one of the native capital sources which would be available to an Irish government which put the interests of the people it is supposed to represent first.

EEC and an Irish mining/metallurgical industry.

Parallel to the mounting exploitation, the Irish economy has hit an increasingly severe depression with inflation accelerating at an unprecedented rate and hints that the number of unemployed might increase by a further 20,000 before next winter thus bringing unemployment to about 100,000. Yet the potential for eliminating these social evils, which result from the underdeveloped and neo-colonialist exploitation of the economy, exist in Ireland.

To escape from the indictment, the Irish establishment has decided to join the EEC - a decision which follows on from the policies adopted in 1958 *(ie. that the country can be "developed" by the inflow of foreign capital.)* Entry to the EEC will enable the establishment to pass on its responsibility for eliminating the continual social evils to Brussels. However the EEC insists that no government interfere with the normal market forces of a capitalist economy in order to alleviate social problems.

One of the many restrictions consequent to joining the EEC is that the Irish people would be denied the possibility of nationalising the mines as demanded in this study. *(See the accompanying extract from the Government's White paper on the EEC).*

Only nationalisation without compensation can put an end to the robbery of our natural resources being perpetrated by those who control the multinational corporations.

DEVELOPEMENT OF OUR NATURAL RESOURCES.

➧ E.E.C. STYLE.

271. The Community has adopted directives on the achievement of freedom of establishment and free supply of services in the mining industry and in the sphere of exploration for oil and natural gas in member States. No decision has yet been taken as to whether these directives apply to continental shelf areas. The Commission has expressed the opinion that the directives are applicable to continental shelf areas in so far as the jurisdiction of member States extends to the continental shelf. The Council has not expressed a view on the Commission's opinion and a definitive decision may not be available unless and until the Court of Justice pronounces on the question.

272. Our present legialation provides for the granting of facilities for exploration and exploitation of the natural resources of the sea bed by way of licence or lease, subject to the payment of such monies as are considered proper and agreed upon with the licensee or lessee. The Government's policy is to grant facilities for mineral and petroleum exploration and development to non-nationals and nationals on equal terms, both in regard to the land area and the continental shelf area. There is, therefore, nothing in our legislation or practice which would run counter to the Community directives.

Government White Paper on "The Accession of Ireland to the European Community" January 1972.

Chapter 1.

NAVAN

And Irish Mining

"The geographical nature of Ireland is so different from what we are accustomed to that many Canadians find the published information on the Tara property bordering on the fanciful - perhaps recalling the Irish fame for blarney. We are accustomed to orebodies being found in inaccessible locations far from sources of labour and power. Tara's Navan orebody, on the other hand, is on a farm less than 40 miles from Dublin and less than one mile from the town of Navan. It is adequately supplied with electrical power, there is an all-weather road just 400 feet south of the present drilling and there is a railroad spur within 800 feet of the orebody. Furthermore, mines in Ireland are favoured with a tax free period of 20 years compared with only three years for Canadian mines - no wonder Canadians have found the facts hard to believe."

MOSS LAWSON & CO. LTD. (TORONTO STOCK EXCHANGE) MARCH 1971.

"The worst thing that can happen to anyone investing in Tara is that they will make money."

Irish Times, February 1972.

[redacted]

Dear Sir,

I have decided to write to you about Avoca and the conditions that we work under. The work is done in shifts. Right now, the overtime is being cut back. We have to bring in our own lunch as there is no canteen. Just like a site! Working underground is unhealthy because of the fumes which fill the shaft. The lads on the rigs suffer the most from the diesel and blasting fumes. We get masks but they clog up after an hour or so. After a blast you can't see more than a yard in front of you because of the fumes.

Most of the shift-[redacted]'s are foreign, mainly Canadians. Mind you, we get on all right with them.

In some parts of the job, we have to look for accomadation in caravans, while the Canadians get a house.

yours

[redacted]

FOR REASONS OF JOB SECURITY, RSG HAS DECIDED TO WITHHOLD THE IDENTIFICATION OF THE AUTHOR OF THIS LETTER.

NAVAN

WHO FOUND IT –

On January 31st, 1968, the soils division of an Foras Taluntais, operating from Johnstown Castle, County Wexford, completed a geochemical survey covering some 650 sq. miles of East Central Ireland. Of the more than six hundred samples tested, only three showed significant traces of Lead/Zinc/Copper mineralisation. Two of these samples were found in Co. Meath; the third in North Co. Dublin. Their precise locations were as follows:

(a) Two miles due west of Dublin Airport where a number of streams join the River Ward.

(b) Ten miles South West of Trim, a few miles North East of Kilcock, where a number of streams join the River Rye.

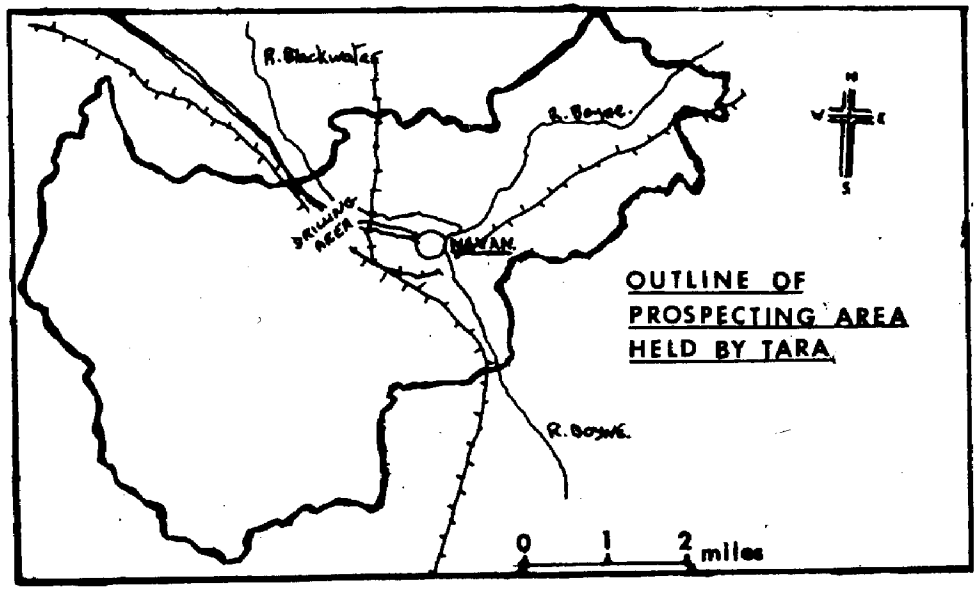
(c) Half a mile North West of Navan town, on the main Dublin-Kells road, at the meeting of the River Blackwater with one of its tributaries.

Contrary to what might have been expected this very important geochemical data was not made public immediately. Read before the Royal Irish Academy on June 24th, 1968, it was not published until June 30th 1969. Some highly significant developments took place in this eighteen month interim period.

On May, 28th, 1969, one month prior to the general publication of the survey, TARA Exploration and Development Company acquired prospecting licence number 1380. This licence, granted by the Minister for Industry and Commerce, gave Tara the sole right to prospect for minerals in that area just North of Navan designated in the Foras Taluntais survey. Exactly one month earlier, on April 28th, Synegore Mines, a subsidiary of Noranda Mines of Canada, was granted prospecting licences number 1318 and 1333 covering that area South East of Trim which showed significant Lead/Zinc/Copper traces.

Having acquired monopoly rights to prospect for minerals, Tara set about a systematic geochemical and geophysical study of the Navan Area. By Autumn 1970 Tara was sufficiently satisfied by the results of its preliminary survey that it decided to commence drilling. Over the previous months, however, Tara's work at Navan had brought it further and further to the East until its most signfficant data pertained to those townlands immediately due East of the area covered by prospecting licence 1380. Thus, before drilling could commence, another prospecting licence had to be secured. This prospecting licence, number 1489, was acquired on October 26th, 1970. *(It is to be noted that, encouraged by its preliminary findings at Navan, Tara, through its associate company Enfer, acquired prospecting licence number 1534.on August 18th, 1970, giving it sole rights to prospect for minerals in the area due west of Dublin Airport shown (by the Foras Taluntais study) to have significant traces of lead, zinc and copper).*

Tara, having completed all the legal niceties, moved fast. Almost overnight of prospecting licence 1489 being obtained a



OUTLINE OF PROSPECTING AREA HELD BY TARA

drill was moved on to the Navan site.· Positioned 230 feet North of the River Blackwater, 600 feet North off the main Dublin-Kells road, it was less than half a mile from the centre of Navan town.

> On November 1st, seven days after it had acquired prospecting licence No. 1489, Tara struck significant amounts of lead/zinc mineralisation at Navan.

On the evening of November 4th Tara announced in a brief statement that it *"had encountered zinc and lead mineralisation from 296 feet to 354 feet in the first drillhole on a new prospect near Navan, Co. Meath. Drilling reached 398 feet on November 3rd and is continuing.."* The robbery of Ireland's mineral wealth was about to enter a new and more intense phase.

The myth that the Navan orebody was found by Tara needs to be dispelled. The Navan anomaly was located by a state-sponsored body *(An Foras Taluntais - The Agricultural Institute)* which is financed by the people of Ireland through governmental taxation and subvention. For further details of this see section on exploration.

The myth that we in Ireland have not got the money and/or know-how to locate and develop the mineral wealth of the country is an arrogant lie fostered and perpetuated by those who formulate and implement policies more to the advantage of international capital than the people of Ireland. Among such people are government ministers and officials, journalists, academics and mining interests. Such lies will never again be allowed to mislead, confuse and thereby enslave the consciousness of the Irish people.

It is now (in Feb. 1972) sixteen months since Tara discovered ore at Navan. Upwards of 300 drillholes have been bored. Additional tonnage is still being established. Little information has been forthcoming from mining quarters. What follows is an attempt to clarify the present situation. Drilling in a systematic pattern at 100 ft. intervals, Tara had completed fifty holes by mid February 1971. On March 4th, Moss, Lawson and Co. Ltd., *(member of the Toronto Stock Exchange)* issued a report on Tara in which they confirmed that - *"Based upon the first 49 holes drilled and assayed, we estimate that in excess of seven million tons of ore have now been proven with a combined lead and zinc grade of approximately 10.84%."* From the assay results, (given in Appendix A) the volume of this *"in excess of seven million tons of ore"* is estimated to be 55,000,000 cubic feet. By dividing the volume by the weight of the ore, the "tonnage factor" is derived. In this case the tonnage factor was 7.63 i.e. 7.63 cubic feet (volume) is equivalent to 1 ton (weight).

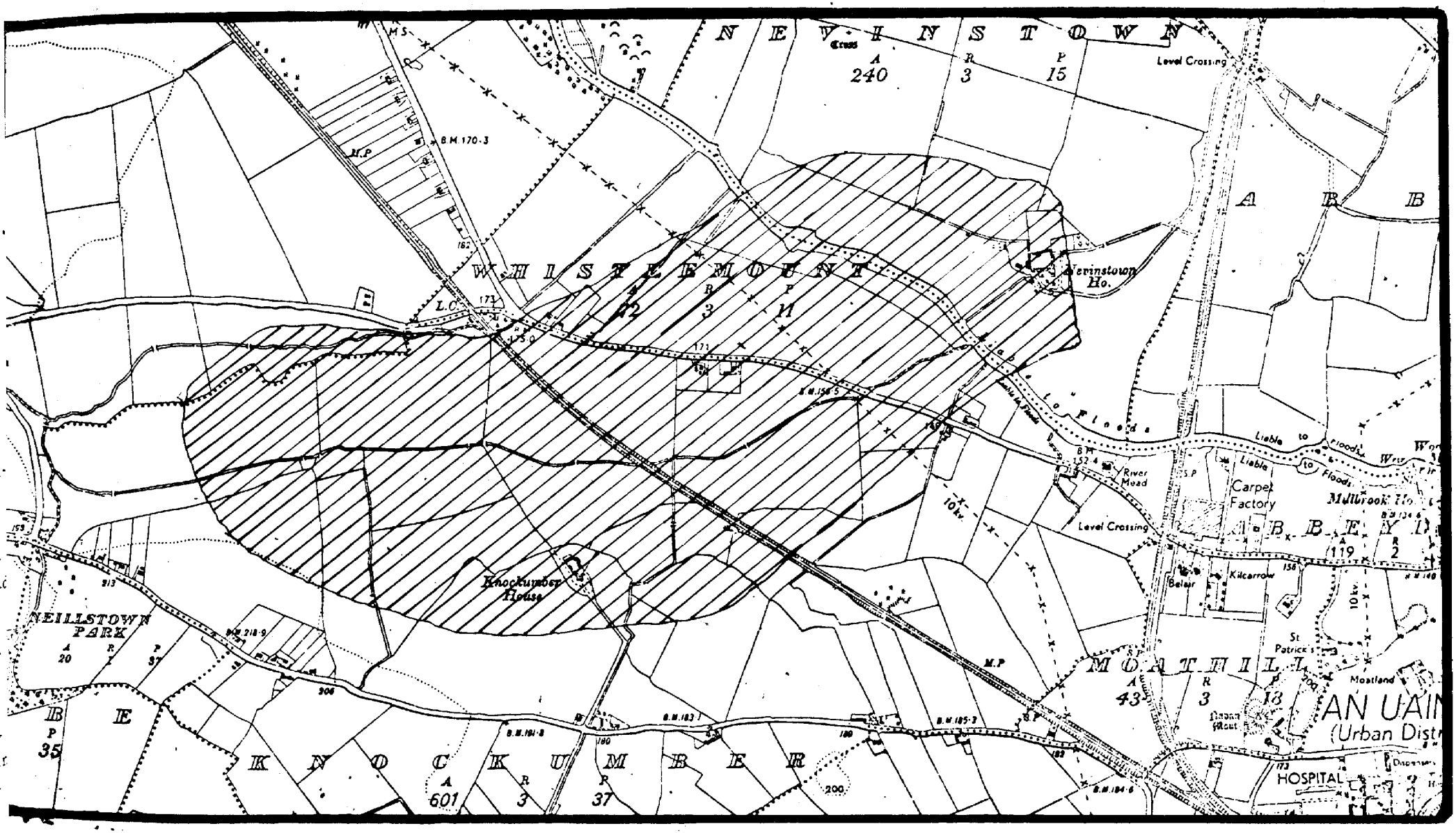
By mid March, Tara had completed 70 drillholes at Navan and on 7th April, Moss Lawson published an updated review of Tara's Navan operation giving 11,200,000 tons as proven ore content for the first 71 holes. The tonnage (or dilution) factor remained at approximately 7.6.

On 30th June Tara's President, Michael McCarthy, announced in the interim report to Tara shareholders that *"tonnage figures are now in excess of 20,000,000 tons."* Already it had become clear that Navan was the largest ore deposit uncovered in Ireland. What not yet clear was the gigantic nature of the Navan find - that it is the largest known zinc/lead deposit in the world.

Throughout the summer and autumn of 1971, Tara continued its systematic drilling at Navan. By October, with 180 drillholes completed covering a grid some 1,700 ft. North-South and 1,500 ft. East-West, 30,000,000 tons were said to have been uncovered. *(I.Press, 15th Oct. 1971).* From assay results, RSG calculated that 32,500,000 tons are proven within the grid enclosed by drillholes nos. 29, 41, 190, 42, 68, 161 and 151. (See grid map on page 7).

On 25th October 1971 Dr. C.T. Morley, Chief Geologist, Ireland, Rio Tinto Zinc Corporation declared that Navan was *"the largest lead/zinc mine in the world."*

NAVAN-The World's Largest Lead/Zinc Mine.



This brought the estimated size of the Navan orebody beyond the 40,000,000 ton mark. According to the Mining Yearbook 1971, the world's largest lead/zinc mine (at Silverlake Territory, Canada) had an ore reserve of 40,800,000 tons of lead/zinc averaging 2.41% lead and 6.3% zinc concentrations when it came into production in 1969.

Navan had reached the top of the international league. Even more significant is that there was still no sign of the limits of the orebody. To the contrary -as Tara moved to the south-west, the orebody became dramatically richer. A visual illustration of the direction of the Navan orebody can be obtained by superimposing a series of contours on the grid map. These contours are derived by joining drillholes of the gradation *(gradation is calculated from length of ore intersection and percentage of mineralisation)*. Such a visual illustration appears on page 11.

Tara's discovery point corresponds approximately to the eastern edge of the orebody. All subsequent exploration at Navan has been to the south, the west and the north. At an early stage it became apparent that the northern limit lay about 1,000 ft. north of the discovery point. Further drilling in that direction was therefore curtailed.

> But the most astounding fact about Navan is that the orebody thickens dramatically as it moves to the south-west and it is in this direction that there is no sign of a limit being reached.

On October 29th 1971, Tara published the most astounding results of the exploration at Navan. According to a Tara press release, a broad front of ore had been located to the south-west (beyond hole no. 187) *"with an average thickness exceeding 300 ft. The width of this south-west trending orebody is, at least, 700 ft."* Translated into tonnage, this would mean that the central portion of the orebody would yield 2,600,000 tons of ore for every 100 ft. extension to the south-west. Viewing the orebody from the west *(see page 10 below)*, an overall tonnage of 4,700,000 tons would be forthcoming for every 100 ft. continued movement in that direction.

That was October 1971 - nearly six months ago. Since then:-

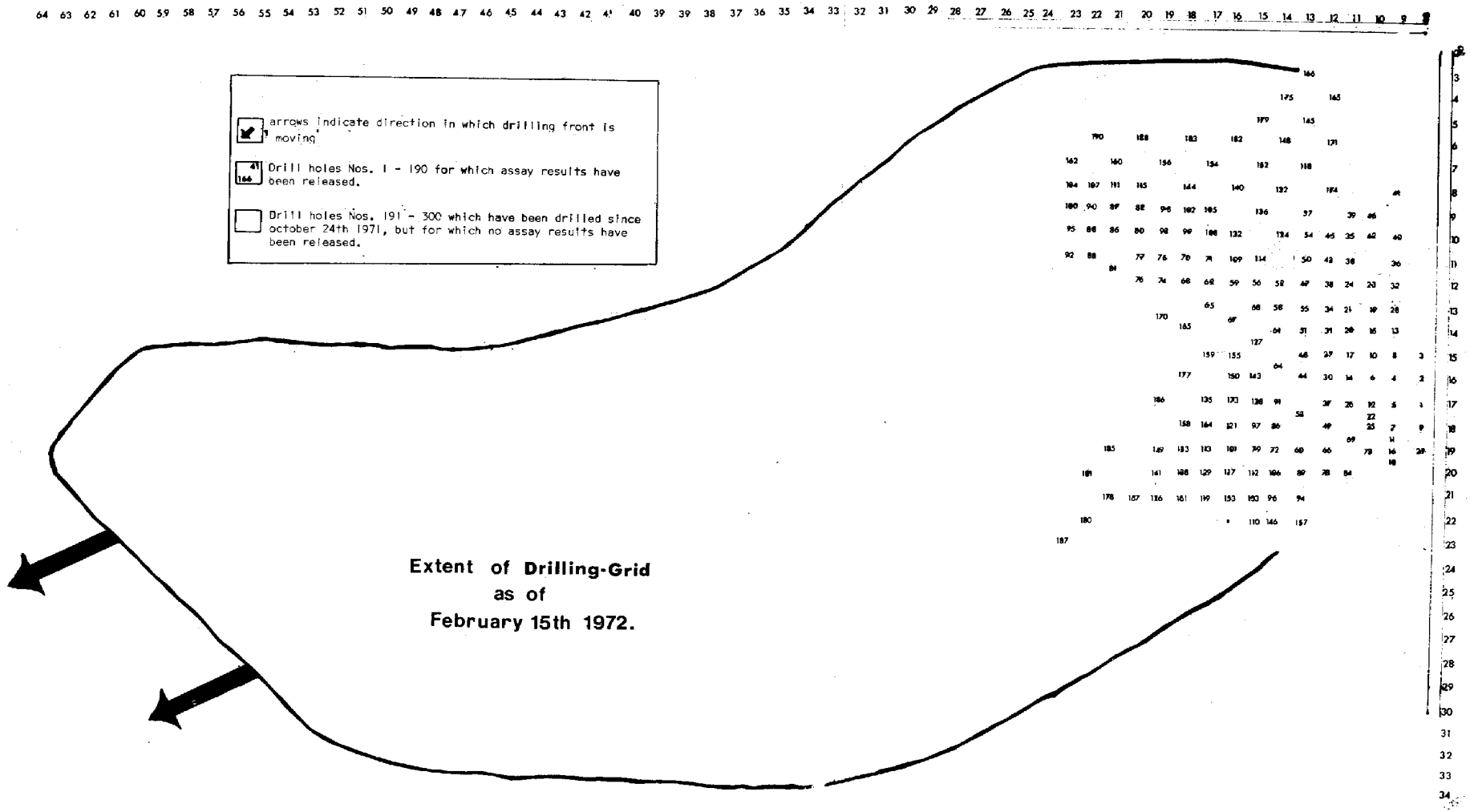
- Tara steadily increased the distance between each drillhole until the holes were 800 ft. apart by the end of January 1972;
- between October 1971 and February 1972 over 100 drillholes were completed;
- the drilling grid was increased from 2.55 million sq. ft. to 11.14 million sq. ft.;
- the number of drilling rigs operating at Navan were increased from 7 to 10;
- the advance rig moved some 4,200 ft. west-south-west of hole no. 187.

Such dramatic developments in the Navan operation were accompanied by a sudden absolute silence. Since Oct. 29th not one scrap of pertinent information has been forthcoming; not one assay result has been published. (Feb. 1972).

This must be seen for what it is - an attempt to keep Navan out of the public notice for fears that demands for nationalisation might reach uncontrollable proportions if the true size of the orebody were to become universally known. There is no technical reason for Tara's silence. The following activities might explain why it is in Tara's interest to play down the size of the Navan find:-

- secret negotiations have been underway between Tara and the Dublin Government with a view to increasing the mining royalty from the 4 - 10% scale to a new 12-18% scale in an attempt to placate the public demands for nationalisation;
- negotiations have been taking place between Tara and Rio Tinto Zinc Corporation concerning a major 'buy-in' by the latter into the former;
- the knowledge that the Resources Study Group (RSG) was in the process of preparing another study which was focussed on the gigantic exploitations involved in the Navan ore find.

THE NAVAN DRILLING-GRID



Confronted with this barrier of silence, financial and mining correspondents resorted to "guesstimates". Thus on 16th December 1971, Business and Finance reported that "guesstimates' have varied widely up to even 80 millions."

Due to Tara's suppression of information, the R.S.G. had to carry out on-the-spot investigations.

Certain facts were obvious. That ore was still being discovered was indicated by bringing in additional drilling rigs to the Navan site and the extension of the drilling grid. The time taken to drill a hole, coupled with the shade of the core sample, indicated both the depth and length of mineral intersection. It was made known to the RSG that mineralisation was remaining constant at approximately 10% combined lead/zinc.

On February 3rd 1972, the Irish Times mining correspondent, gave some indications of the gigantic preparations of the Navan discovery:-

"My calculations are based on a strike length of 6,000 feet, a width of 1,300 feet and an average thickness of 130 feet. If you cube that lot and provide for a dilution factor of ten, the resultant figure will be just over the 100m. ton level.

Mind you, I think these figures are going to be proved wrong - probably hopelessly so - but only because continued drilling will prove them to be very conservative.

For the moment these figures will do very nicely, thank you, providing as they do for a 10,000 ton per day mill to operate flat-out for 30 years. The days of back-yard mining are over. As far as I could gather the company is still in ore everywhere and although there is a suspicion that the orebody may be tapering off in the North-east where it comes up in a sub-outcrop, there are still anomalies beyond that yet to be tested.

The strength of the ore-body lies in the deametrically opposite direction South-west, where the majority of the 10 drill rigs in use on the property are being deployed.

In thebeginning, the company closedrilled the north-east setion of the property in a grid fashion with 100 ft. spacings on a reef dipping away to the south-west at around 40 degrees. This made good sense because nobody at that time realised how big the ore-body would be and the object of the exercise was to at least prove up a commercially viable zinc-lead deposit which could be brought into production.

Now, however, it is no longer a question of finding more ore - I mean this in the nicest possible way - because a real factor is to try and find out where the orebody peters out so that serious consideration can be given as to where to site the mill-concentrator.

This is why boreholes now being drilled in the south-west are spaced at 800 ft. intervals on a reef which has now flattened out to around 20 degrees. Ironically enough the company are still maintaining its battling average at 100% although the holes are now being sunk to around 1,800 feet which is taking something slightly more than a week per hole per drill rig.

When I left the property last weekend, hole no. 273 was being drilled. And while the company is behind in its assay results in a quantitative sense, qualitatively thezinc to lead ratio is still running fractionally under 5:1 in favour of zinc with an average still over 10% combined zinc-lead values."

PROFITABILITY -

In order to arrive at a figure for the new profit which the Navan orebody will generate, it is necessary to make some definite quantifications. These are:

(a) the size and mineral content of the orebody;

(b) capital expentidure required to bring Navan into production;

(c) the operational costs associated with extraction and processing Navan's ore and

(d) the average price at which the metals can be sold.

(a) The size of the Navan orebody.

Because the limits of the Navan orebody have yet to be reached, it is obviously not possible to put an upper limit on its size. What is certain, however, is the lower limit. The Resources Study Group accepts that "very conservative" 100 million ton figure. It is also accepted that the combined lead/zinc mineralisation is approximately 10% i.e. 8.33% zinc and 1.66% lead.

(b) Cost of bringing Navan into production.

The capital costs associated with bringing Navan into production are:-

- the removal of 500,000 tons of overburden which will permit the extraction of some 5 million tons of ore by open-cast mining - £1m.
- the installation of a concentrator complex with capacity of 10,000 tons per day - £11m.
- the development of an underground mine allowing for an extraction rate of up to 10,000 tons per day - £5.5m.

Thus the capital investment required is £16.5 million.

(c) Operational costs associated with Navan.

For open-pit operations a cost of £2.20 per ton will be incurred in the extraction and concentrating stages.

"Thank heavens for our natural resources - otherwise we could never afford such poverty..."

This corresponds to the operational costs per ton at Tynagh during the period 1965-1971. It is projected that not less than 5,000,000 tons will be extracted by this method. The figure will probably be much higher.

The cost of underground extraction is approximately 40% higher than that of surface operations. Thus the operational cost for 95,000,000 tons of ore lying below the 100 ft. of overburden will be £3.15 per ton. Once again the tonnage figure may be taken to be a very conservative guesstimate.

Therefore, over the life of a 100 million ton Navan, an operational cost of £310.25 million will be incurred.

Transportation expenses must be added to the purely operational costs given above. Over the life of a 100 million ton mine at Navan, some 14.6 millions tons of concentrate will be transported to a smelter. This figure is based on a metal recovery rate of 88% and a 56% concentration level. Assuming that a smelter would be sited within 120 miles of Navan (see chapter 2 on the siting of a smelter), the following transportation costs apply.

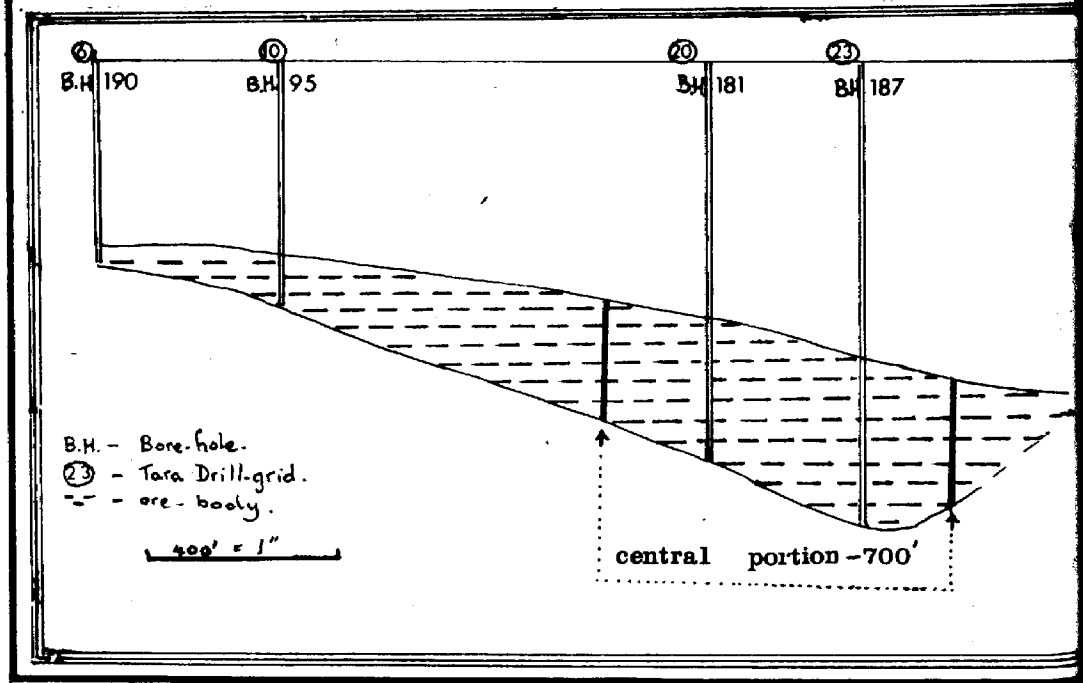
At present CIE charges a fixed cost of 1.6p per ton for each mile up to the first 60 miles and thereafter a variable cost of between 35-65% of the fixed cost for further milage (depending on the length of the journey). Taking the average variable cost to be 50% of the fixed cost, the transportation of one ton of concentrate from Navan to Galway would cost £1.44. Total transportation costs of concentrates to a Galway smelter would be £21,080,000.

(d) Price at which concentrates/metal can be sold.

As Tara has a 30% interest in the Smelter Corporation of Ireland (SCIL) and Northgate the remaining 70%, the price at which Tara sells its concentrates to SCIL is not important. What is important however, is the price at which SCIL will be able to sell the smelter output. Fortunately for all concerned, Navan is primarily a zinc mine and as less than one-sixth of th metal recovered is expected to be lead, most of the metal will be zinc.

The long-term outlook for zinc is extremely favourable, with projected demand doubling in less than 20 years (see chapter 4). Therefore the long-term trend in zinc prices

NORTH-SOUTH CROSS-SECTION OF NAVAN'S ORE DEPOSIT ALONG GRID-LINE 23 West.



will be undoubtedly upwards. On the agenda of a meeting of the European zinc producers held just before Christmas, an item proposing to raise the producer price of zinc to £175 per ton appeared. This was discussed and although such a move was postponed, there are indications that the official price (£150 per ton of zinc) will very soon be revised upwards.

The future demand for lead is less certain (see Chapter 4). A precise long-term projection is difficult at this stage. It will undoubtedly be above £100 per ton.

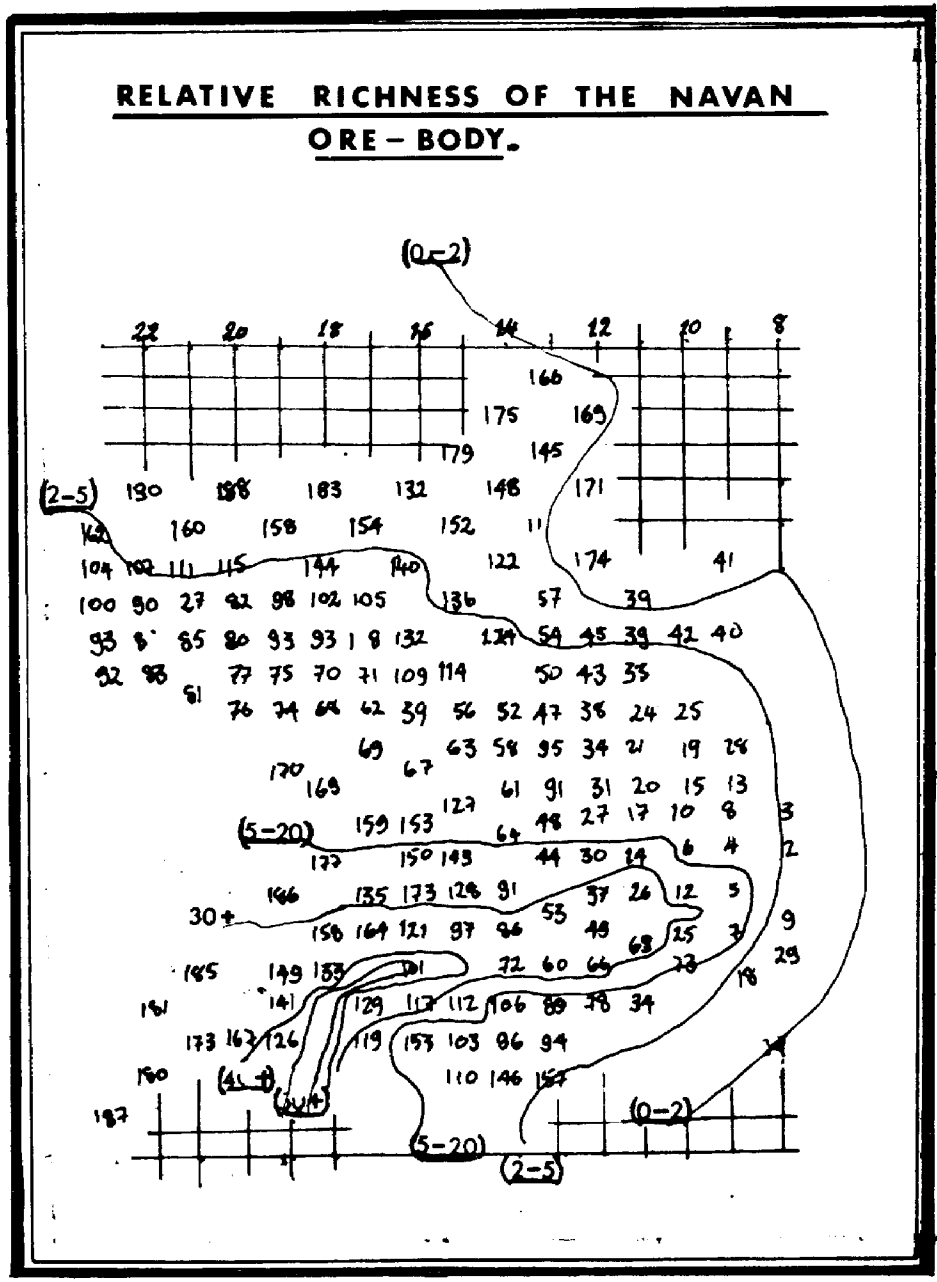
Taking £135 and £100 as the average selling prices per ton for zinc and lead respectively, and given that an overall metal recovery rate of 82% will be forthcoming from concentrating and smelting, a MINIMUM GROSS METAL VALUE of £1,045,200,000 *(One billion, 45 million, two hundred thousand pounds)* will be forthcoming from Navan's ore.

To arrive at a figure for net profit, it is necessary to deduct all expenses incurred in extracting and processing the ore from the gross metal value price.

The capital and operational costs associated with the extractive stage of the Navan orebody amount to £347,830,000 (see (a), (b), (c) above).

As documented in Chapter 2 (which follows) the capital and operational costs of smelting Navan's ore are £213,753,000 (£26.40 per ton).

Net Profit: £486,617,000 is obtained by subtracting the costs incurred in extractive and processing stages i.e. £561,583,000 from the gross metal value £1,045 million.



WHO OWNS NAVAN?

The quantification of wealth that will be generated at Navan over the next generation demands one footnote - who owns it.

TARA EXPLORATION AND DEVELOPMENT LTD.

Registered in York, Ontario, in 1953, with an authorised share capital of 3,000,000 shares of 1 dollar each, (increased to 6,000,000 on July 6th 1964) Tara remained insignificant until arriving in Ireland in 1962.

Operating as a mineral exploration company, Tara expended £630,000 on the eight year exploration programme which lead to Navan.

As late as the spring of 1970 Tara shares were valued as low as 60 cents each. Just one month prior to the Navan strike, Tara's shares were valued at only 1.05 dollars each.

On November 3rd, the day before the announcement of the Navan strike, the total number of issued Tara shares was 3,620,000.

the Irish Times Financial page carried the following review of Tara and its shares:

"The behaviour of Tara lately has caused a lot of talk and speculation. Basically the consistent rumour is that the company will be taken over by a powerful major. Nobody seems quite clear which major and names like RTZ, Selection Trust, Denison and Cominico have all been bandied about as the likely bidders. Of the lot, I could believe in Cominico and RTZ.. It seems to me that anybody who at this price (11.87½ dollars Toronto/£6.00 London) could probably take up a 15 - 20% stake in the company without running the price up much more than say 25.00 dollars/£10.00 per share which is still less than what the shares will be worth..."

BULA CHALLENGES

International corporate capitalism versus national gombeen capitalism.

When Tara Exploration and Development Co. realised that the Nevinstown lands contained major mineral deposits, negotiations were entered into with Patrick Wright who owned Nevinstown House. Mr. Wright owned 120 acres in "fee simple" and thus he had control of the mineral rights. During March 1971, the following succession of events point ot some strang dealings - particularly on the part of the government:-

Mon. 15th March - see 22nd March below.

Wed. 17th March - Ireland - T. Roche, managing director of Roadstone Ltd. offered Wright £120,000 and a 30% stake in Bula in return for Wright's farm.

Canada - Mr. Lalor, Minister for Industry and Commerce met Mr. P. Hughes, President of Northgate Exploration Ltd. at a St. Patrick's Day Parade.

Thurs. 18th March - The deal between Roche and Wright was clinched.

Fri. 19th March - Bula Ltd. was registered as a pri vate company.

Sun. 21st March	Bula Ltd. stated that "it had acquired Nevinstown House and land, Navan, Co. Meath, formerly the property of Mr. Patrick Wright. A feasibility study is in progress with a view to the development of the minerals..."
Mon. 22nd March	Tara Exploration and Development (of the Northgate group of companies) revealed that the Dublin government had secretly taken over the mineral rights of Nevinstown House by means of a compulsory purchase order. This order was dated 15th March. Thus the agreement between Roche and Wright was negated.
Tue. 23rd March	The statutory notice of compulsory purchase was published in the press. "The order, and maps showing the area, were deposited only yesterday, it is believed, at the office of the Geological Survey in Dublin". (I. Times).

Bula immediately pointed out that Wright had not been informed of the order which was made under the 1940 Minerals Development Act. This act gives the Minister for Industry and Commerce the right to acquire mineral deposits which in his opinion *"are not being worked efficiently."* Bula challenged the legality of the order and the constitutionality of the 1940 Act. The case is now before the High Court.

Not that the outcome would make much difference to the way in which the benefits of the Navan orebody will be distributed. Under existing circumstances, Bula would undoubtedly link up with international smelting and marketing concerns. The exploitation thus entailed is clarified in Ch. 6 and Ch. 7

TARA/NORTHGATE SHARE-SWAPPING

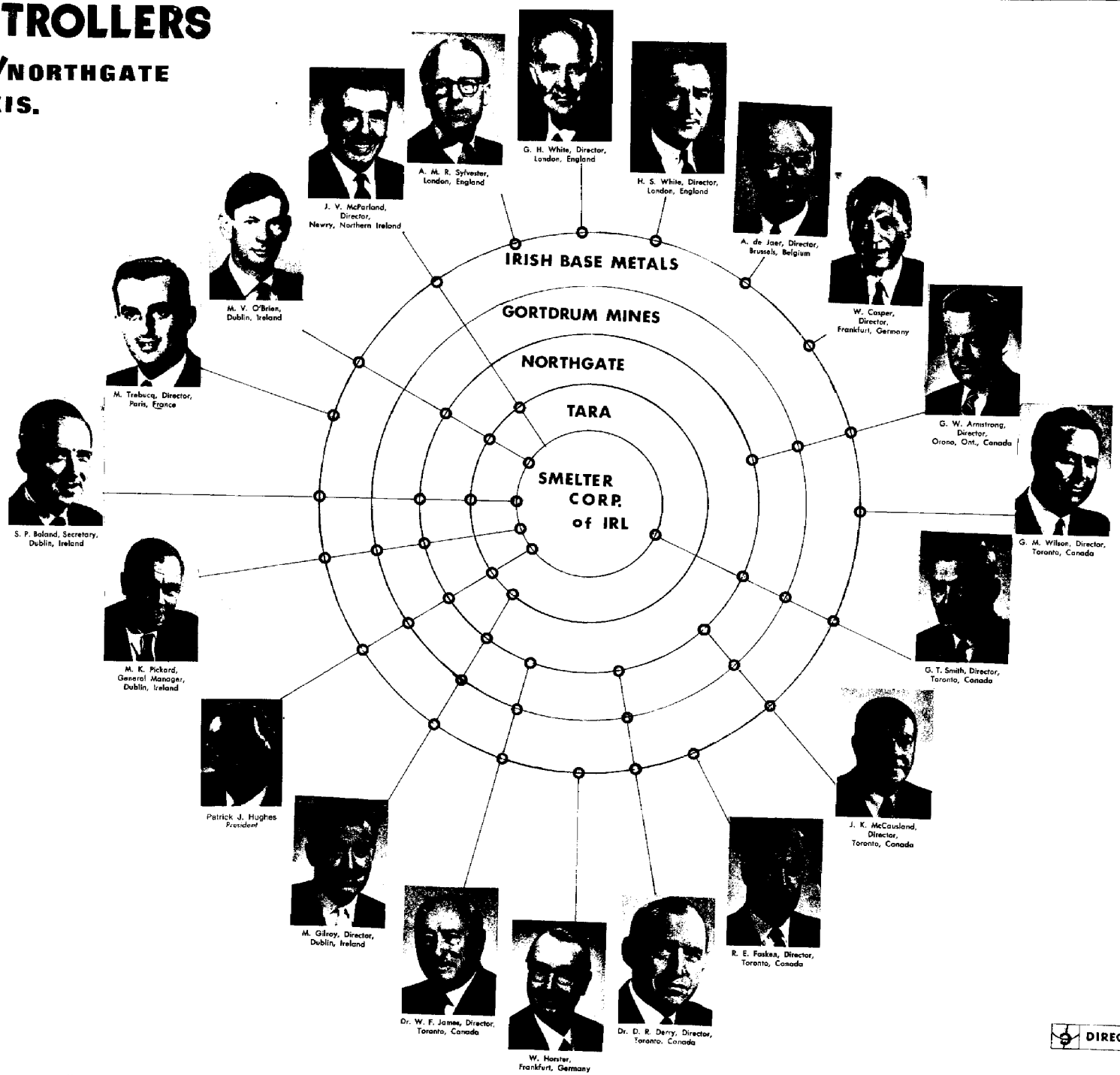
On 19th May 1971, Tara Exploration and Development issued a statement saying that it proposed to issue 400,000 new shares in exchange for 500,000 shares in Northgate Exploration. The shares in Northgate Exploration were owned "by certain trusts for the benefit of the families of Mr. Michael McCarthy, Tara's President, and two of his associates and the individual holdings of one other associate." The associates are Matthew Gilroy (Vice-President of Tara), Patrick Hughes (President of Northgate Exploration Ltd.) and Warren Armstrong (Secretary Northgate Exploration). These family trusts and individual shareholding would acquire 400,000 shares in Tara (valued at $5.152m in Toronto on 19th May 1971). Thus Tara valued Northgate shares above the market price. Later on, at the Annual General Meeting of Northgate, one shareholder commented *"They were making a cool profit of about 2 million dollars on the deal"*. ($2m - £.835m approximately).

This statement is confirmed by the share prices of the respective companies at the close of trading on 3rd March 1972. (Tara at $15.50 per share = $6.2m for the 400,000 shares acquired by the plutocrats - Northgate at $6.50 per share = $3.25m for the 500,000 shares given away in return for the Tara shares!).

In the statement, Tara said that it would, *"with the personal holdings of Mr. Patrick J. Hughes and his associates, will have effective control of Smelter Corporation of Ireland, Irish Base Metals and Gortdrum Mines (Ireland), also numerous other and world-wide operations of Northgate."* The Irish Times commented that "Since the transfer of Northgate shares is only from Mr. McCarthy's family interests (and associates) to a company, Tara, of which Mr. McCarthy is president, it is not obvious how the effective control of Northgate (and its subsidiaries) is greatly changed. The proposal, unless further explained, appears to be a readjustment of holdings among a group of people (and their associates) who control both Northgate and Tara". (Irish Times, 20th May 1971).

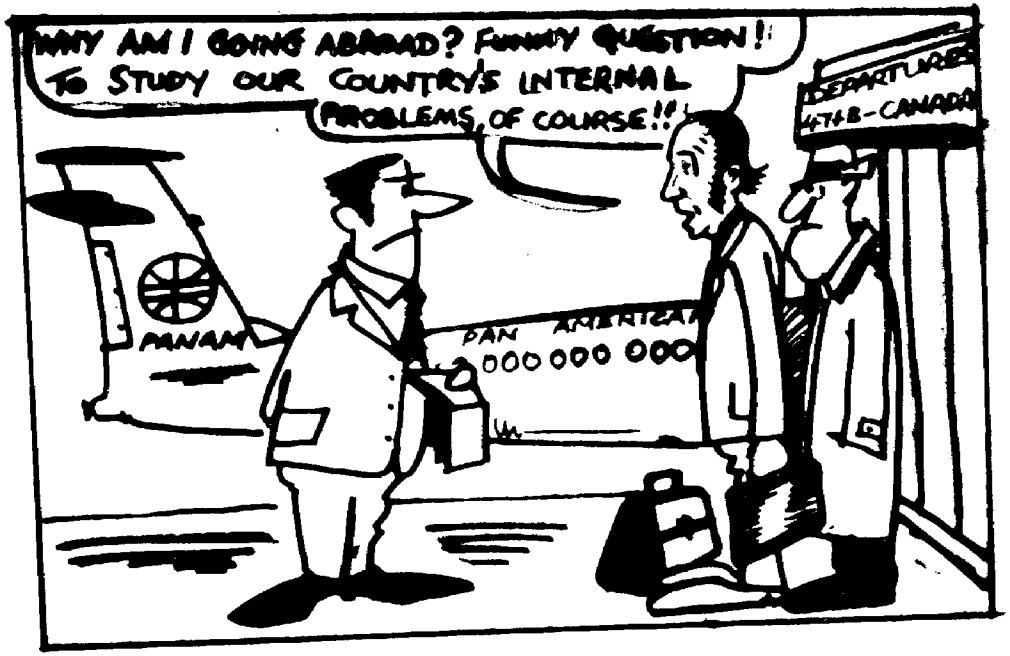
THE CONTROLLERS

THE TARA/NORTHGATE AXIS.



DIRECTORSHIP

The significance of the Tara/Northgate share link-up lies in the fact that those two corporations now own the major part of Ireland's mineral wealth. The whole picture of a small group of gombeen capitalists, government ministers and international moguls frantically jockeying for power and wealth in the transactions described above emply illustrates the contradiction between the proposition that Irish mineral resources should be developed in the interest of the Irish people and the fact that their "development" is being carried out by such interests and not a body owned and controlled by the people.

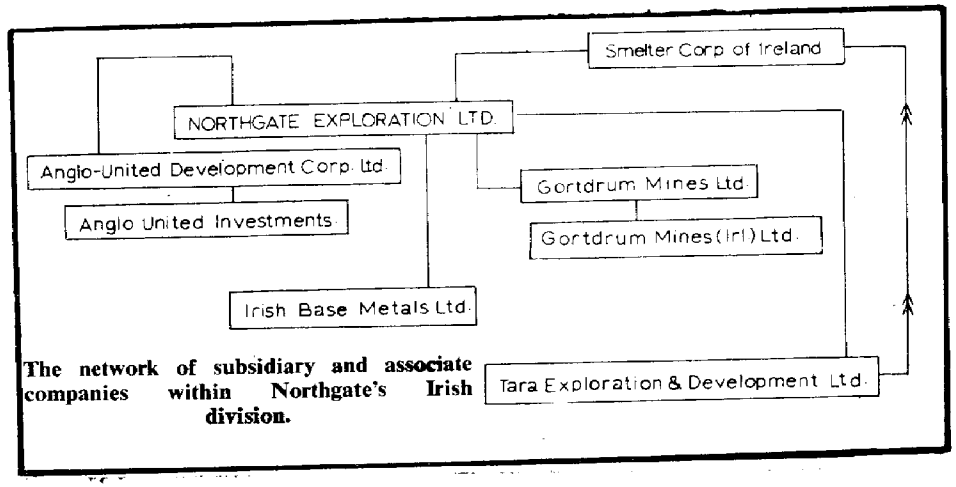


TYNAGH

THE YEARS 1965 - 1970

In an effort to refute the findings of the document "Irish Mining - a case study of exploitation" published by the Resources Study Group (RSG in Feb. 1971) Irish Base Metals Ltd. (which operates the Tynagh mine on behalf of the Northgate group) issued the pamphlet "Tynagh - a case history of mining in Ireland" in April 1971. In this document and in the press, Northgate has put forward three basic arguments as a refutation of the RSG criticism of their activities in Ireland. These arguments are:

(a) the small profit return from mining in Ireland;

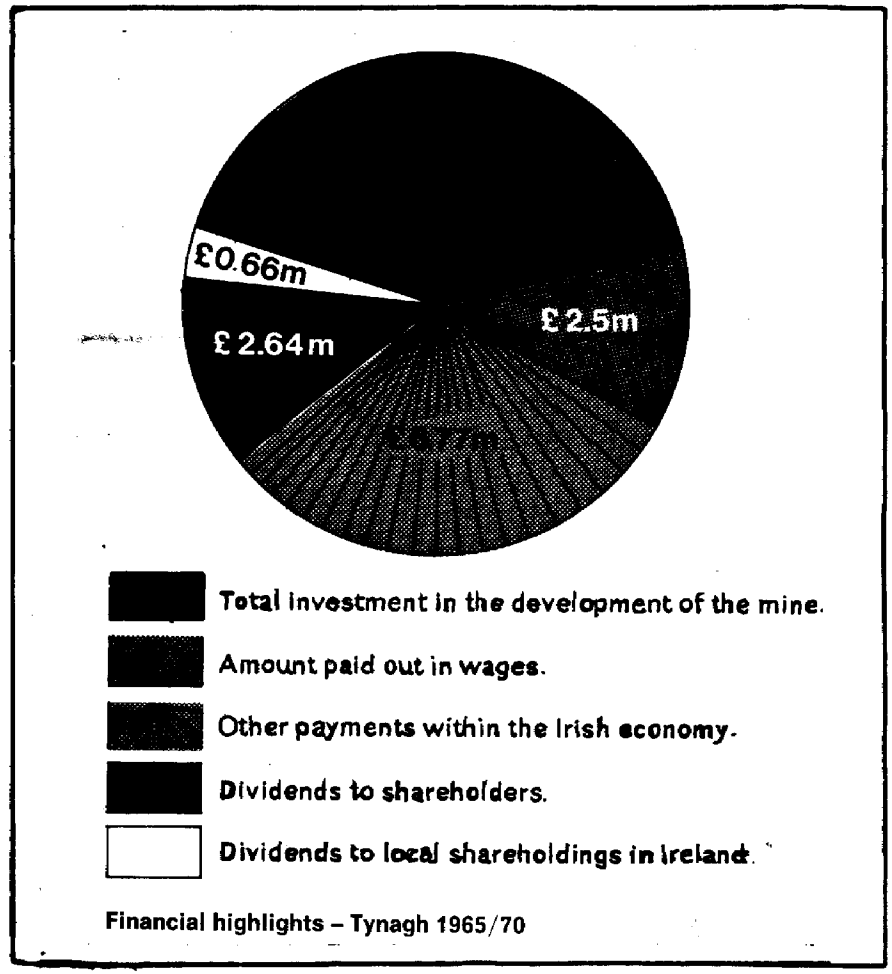


The network of subsidiary and associate companies within Northgate's Irish division.

(b) the "Irishness" of the mining companies;

(c) the "very sizeable contribution made by the mining industry to the national economy."

These statements can be analysed by comparing the RSG calculations with Northgate's own figures. The following diagram (taken from Northgate's publication) shows the main quantifications associated with the Tynagh operation from the commencement of production in 1965 to 1970.



Financial highlights – Tynagh 1965/70

(a) The profit returned from Tynagh 1965-70.

In the original RSG document, a figure of £15.261m wa given as the net profit accruing to Northgate from Tynagh during the period 1965-70. By comparison the Northgate publication gives £3.3m *(split between "dividends to share holders" - £2.64m and "dividends to local shareholdings in Ireland" - £0.64m.)* as the amount paid out in dividends to shareholders. This is obviously a far cry from the £15.261m given by the RSG the discrepancy requires analysi

Northgate infers that "dividend"and "profit" are the same thing. As was clearly shown in the RSG study, distributed profit (Northgate's "dividend") accounts for only 29.9% of the net profit; the remaining 70.1% of net profi being "retained profit" which is invested in Canadian and Australian mining companies. The Canadian mining journal Northern Miner reported on 10th Sept. 1970 that *"Northgate assets and interests in affiliated companies"* rose from $18.2m (£7.57m) to $55.4m (23.07m), during the period.

Nor does it end there. Even with the 70.1% of undistributed profit accounted for, Northgate's total figure fo net profit comes only to £11.37m - still nearly £4m short of the RSG figure.

The explanation is simple and revealing.

In bringing Tynagh into production, Northgate incurre a debt of £4.1m.. Within 26 months of Tynagh coming into production, the debt had been repaid in its entirety. Ho ever, in the years that followed, Northgate continued to make allowance for "depreciation" and "amortization of pre production expenditures" - which amounted to £4.719m over the 5 year period 1965-1970.

As the initial debt of £4.1m has been repaid, the fig ures for "depreciation" and "amortization of pre-productio expenditure" are costs which exist on paper only!

These accounting devices are used to understate the net profit. Such money is available for Northgate to dispose of at will.

RSG (in taking figures from the Financial Post Corporation Investment Service, Toronto) has shown how operating profit for Tynagh was £19.975m during 1965-70. To arrive at the figure for net profit during this period it was necessary to subtract the £4.719m which Northgate allowed for "depreciation" and "pre-production expenditure". Thus a figure of £15.261m for net profit during the five year period is derived.

(b) Who owns Northgate?

A second argument put forward by Northgate is that it is owned by Irishmen.

This is simply not true. And even if it were, RSG would still insist that the mineral wealth of Ireland belongs to all the people of the island and not just to a few indiduals.

In the previous pamphlet (RSG p.43) it was stated that *"at least 75% of the distributed profit flows out of the country"*. In fact, Northgate's own figures show that £2.64m of the £3.3m allocated as dividends 1965-70 went to the shareholders outside Ireland i.e. 80% went abroad. So much for the "Irishness" of Northgate.

(c) Northgate's contribution to the Irish economy.

The third point put forward by Northgate is the "very sizeable contribution" which Tynagh makes to the Irish economy. This claim does not stand up to analysis.

In the original RSG document a figure of 27.77% (see RSG p.31) was given as the proportion of the gross value generated by Tynagh which entered the Irish economy in any way. This, as it happened, has turned out to be too generous.

Using Northgate's own figures, £0.66m went to shareholders in Ireland, £2.5m was the "amount paid out in wages" and £6.77m was the amount that went to "other payments within the Irish economy." Together they amount to £9.93m - which represents 20.8% of the gross value for metal recovered from Tynagh during 1965 - 70 (Gross metal value £47.082m).

One further point must be looked at. This concerns the £8.75m spent in "the development of the mine."

This £8.75m is accounted for as follows -

£4.1m borrowed to bring the mine into production;

further £3.5m has been allocated to the development of the underground mine;

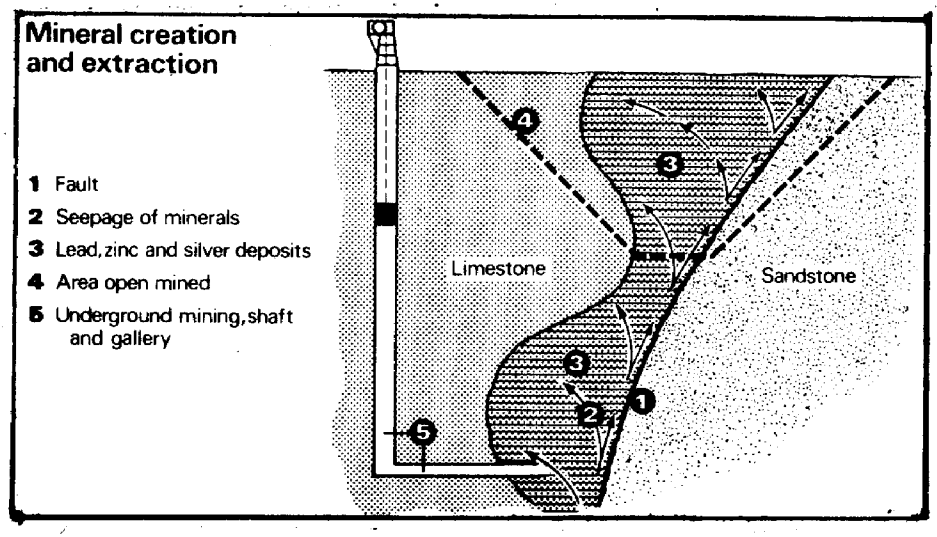
and £1.15m as working capital.

From the above, Northgate's claims on the profits, ownership and benefits from Tynagh confirm rather than deny the case put forward by the RSG in the previous study.

THE YEARS AHEAD:-

Between 1965 and the end of 1970, 3,000,000 tons of ore was extracted from Tynagh. At the end of 1970, according to the Northgate Annual Report (1970), the ore reserve was as follows:-

"The mineable ore reserves as presently defined are contained in Zone 1, designated as the Open Pit Reserves, and Zone 11, the primary sulphide Underground Reserves. At December 31st 1970, the combined reserves of Zone 1 and 11



amounted to approximately 6.4 million tons - Zone 1, 2,000,000 tons averaging 7.67% lead; 7.54% zinc; 0.0476% copper; and 2.8802 oz. silver per ton. Zone 11, 4,400,000 tons with 4.28% lead; 3.12% zinc; 0.35% copper and 1.402 oz. silver.

In addition to the Zone 11 ore reserves, there is extensive mineralisation in Zone 111 which is about 600 feet east of the Zone 11 ore, access to which will be available from the present underground workings. Zone 111 was discovered in 1967 and was tested at that time by surface diamond drilling totalling some 60 holes drilled 100 feet apart on 200-ft. sections. The drill-indicated mineralised material in Zone 111 is estimated at 3,200,000 tons grading 2.99% lead, 3.15% zinc, 0.17% copper and 0.49 oz. of silver per ton, or, alternatively by using a different cut-off factor, 1,450,000 tons grading 4.86% lead, 4.69% zinc, 0.68% copper and 0.98 oz. silver per ton. The Zone 111 area will probably be explored during 1974 and should add significantly to the life of the mine."

Thus at the end of 1970, 23.8% of the proven ore reser had been extracted. The average mineralisation of the re-maining ore reserve (taking the 'cut-off' point for Zone 11 as 3,200,000 tons of ore averaging 2.44% lead, 3.15% zinc, 0.17% copper and 0.49 oz. silver per ton) is 4.05% zinc, 4. lead, 0.22% copper and 1.4 oz. silver per ton.

Compare this to the ore extracted from Tynagh in 1969 1970 when mineralisation was 3.2% zinc, 12.5% lead, 0.25% copper and 2.86 oz. of silver per ton, and 2.43% zinc, 6.7% lead, 0.357% copper and 2.3 oz. of silver per ton respectiv The differential is not great. In fact the figures for 19 are practically identical. *(In 1970 the operating profit Tynagh was 10,655,000 dollars).*

Assuming that the remaining 76.2% of the Tynagh ore re serve averages a metal content of 25% below the average met content for the ore extracted in the years 1965-1970 the me value for the entire Tynagh deposit is £165,600,000 (i.e.£4 1965 - 1970, 1970 - £118,580,000).

NET PROFIT:-

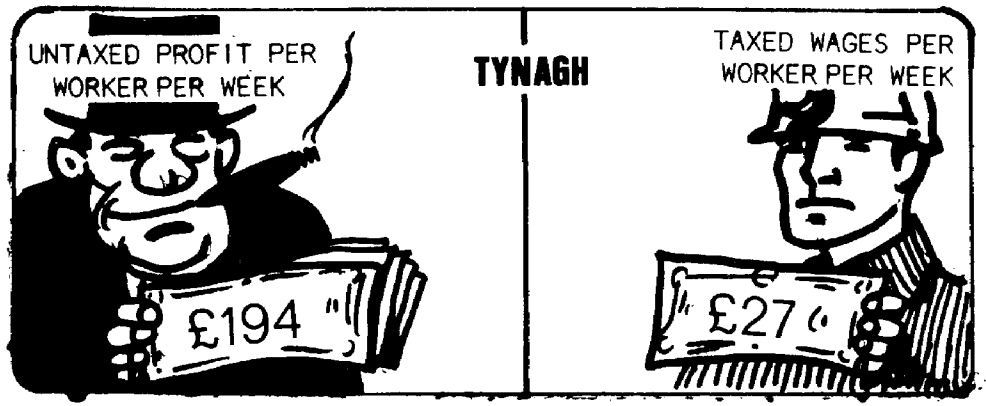
An operating cost of £2.20 per ton of ore extracted fr Tynagh was incurred between 1965-1970. This operating cos will remain at approximately the same rate for the remainde of the surface deposit (i.e. an additional 2,000,000 tons a of December 1970). For the underground reserve an operati cost at a rate approximately 40% higher can be expected.

Thus the overall operational cost associated with the extraction of the Tynagh deposit is £43.44m (5m tons at £2. per ton plus 7.6m tons at £3.15 per ton and a capital expen iture of £8.5m).

Smelter costs will amount to £32.3m over the life of the Tynagh deposit (1,224,000 tons of metal at £21.25 operating cost per ton plus a capital allowance of £5.14 per ton).

An additional expense is a transportation cost of not more than £3.00 per ton of concentrate. Given that 2.8m tons of concentrate will be exported from Tynagh, transportation costs will amount to £8.4m over the life of Tynagh.

Thus over the life of Tynagh a net profit of £71.46m will be shared between Northgate and the European smelter.



SILVERMINES

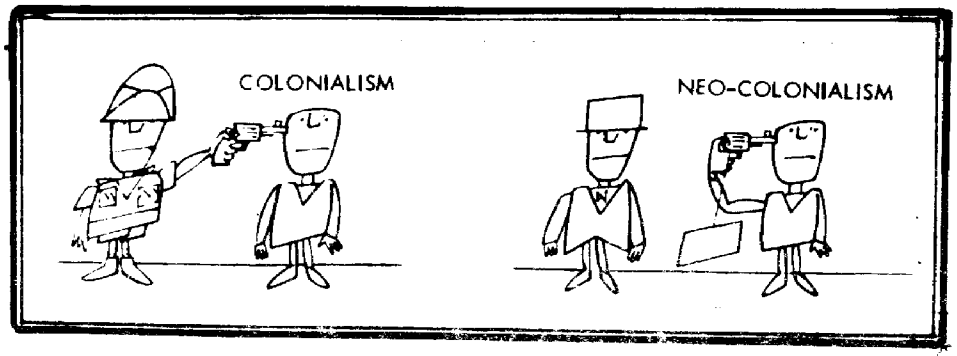
WHO FOUND IT:-

Silvermines and the area around it has a history of mining dating back into antiquity. The earliest recorded mining activity commenced with the discovery of lead in 1604. *"The earliest records of geological studies are preserved in the works of T. Weaver starting in 1807. In 1861, Memoir 134 of the Irish Geological Survey was published, a combined effort of A.B. Wyrne and G.H.Kane. These manuscript maps and reports of the Silvermines area are today a prime source of information and invaluable aids to the exploration geologist."*

(Development, Dec/Jan 1970)

WHO NOW OWNS IT:-

On September 1st 1965, the Minister for Industry and Commerce made Mogul of Ireland Ltd. a present of the entire lead/zinc deposit at Silvermines (under mining lease M36). The consideration was a graded royalty of 4-10% of the operating profit earned by Mogul. Mogul of Ireland Ltd. is 75% owned by International Mogul Mines of Canada. The remaining 25% is controlled by Silvermines Ltd. - the majority of whose shares are held by British interests.



THE SILVERMINES DEPOSIT:-

Silvermines came into production in May 1968 and by December 1971, 3,470,000 tons of ore had been extracted.

On January 1972, 9,450,000 tons of ore averaging 2.7% lead, 8.12% zinc and 0.85 oz silver per ton remained in the principal reserve (G Zone).

At the 1970 annual General Meeting of Silvermines Ltd. chairman, G.E. Russell, announced that in addition to the proven reserve in G zone, a new ore reserve had been located in 'B' zone and "has been calculated at something over two and a half million tons, of which an estimated two million tons of approximately 10% combined lead/zinc will be recovered."

Thus the proven ore reserve on January 1st 1972 was 11,450,000 tons averaging approximately 10.6% combined lead/zinc with 0.80 ozs. of silver per ton. At the present extraction rate of 3,000 tons per day this will wnsure a life for Silvermines until the summer of 1982.

PROFITABILITY:-

Mogul incurred an £8.35 million debt in bringing Silvermines into production.

In its first full year of life, (1969), Silvermines, treating 1,018,705 tons of ore, averaging 10.22% zinc / 2.42% lead, generated an operating profit of 7.2 million dollars (£3m) (Mining Annual Review, June 1970); that is, just over 7 dollars (£2.91) per ton operating profit of ore extracted.

For the first 9 months of 1970 759,809 tons of ore were milled producing 28,314 tons of lead concentrate, 139,406 of zinc concentrate and an operating profit of 5,424,000 dollars (£2.26m) (Mining Yearbook 1971); that is, an operating profit of 7 dollars (£2.91) per ton, a in 1969.

Assuming that the operating profit per ton was not greatly different for 1968 and 1971, this gives us an overall operating profit for Silvermines, since coming into production of 24,290,000 dollars (£10,012,000).

An indication of the magnitude of the return from Silvermines is that if the £8,35 million debt incurred in bringing the mine into production all but £2.96 mil ion had been repaid by December 1971. With only 3.47m tons of ore mined out of an initial ore reserve of 14.9 million tons, thismeans that 76.73% of Silvermines has yet to be exploited.

Accepting that the operating profit per ton of ore will decrease on average to approximately 6.50 dollars (£2.7) for the remaining three-quarters of the mine, (due to a slightly lower mineralisation content) the operating profit for the Silvermines operation will be in the region of 198.715 dollars (41,022,000) per ton). Given that the ore reserve as of January 1972 has a metal content of five-sixths of that obtained from the ore extracted in theperiod 1968-71, the gross metal value of the entire Silvermines deposit is £161,365,000 (again assuming an overall

From this capital cost of £8.35 million must be deducte This gives a net profit of £32,672,000 for the extract ive stage of the Silvermines deposit.

The gross value of the metal contained in the ore extracted between 1968 and the end of 1971 was £44,770,000 (3,470,000 tons of ore averaging 12.5% com bined lead/zinc with an overall (average) recovery rate of 80% and an average metal selling price of £130 per ton of metal.).

The operational and capital costs associated with the smelting of the Silvermines ore is £32,769,528 (1,241,270 tons at £21.25 operating cost per ton + a capital allowance of £5.14 per ton).

Thus the overall surplus (i.e.profit) associated with the extraction and smelting stages of Silvermines is £73,898,000; that is, the gross value of the metal - (£161,365,000) minus all operating and capital costs associated with the extraction of the ore (£47,198,000) transportation expenses (£7,500,000) and smelting costs (£32,769,528).

BENNETSBRIDGE

WHO FOUND IT:-

It was the Irish Geological Survey Office who first proved the existence of a large dolomite deposit at Bennetsbridge in North Co. Kilkenny.

WHO NOW OWNS IT :-

On January 1st 1969 the Dublin Government made Quigley Magnesite Ltd. a present of the entire Bennetsbridge dolomite deposit - all 17,000,000 tons of it. (Mining lease M48). The consideration, was £150 per annum plus 0.025p. per ton of dolomite extracted.

Quigley Magnesite, a major producer of refractory material in the United States, was taken over by the Pfizer corporation of New York in 1966. Pfizer other interests in Ireland include an organic chemical plant at Ringaskiddy, Co. Cork *(constructed with the help of a £5.868m grant from the Industrial Development Authority)*, and a refractory production plant at Tivoli

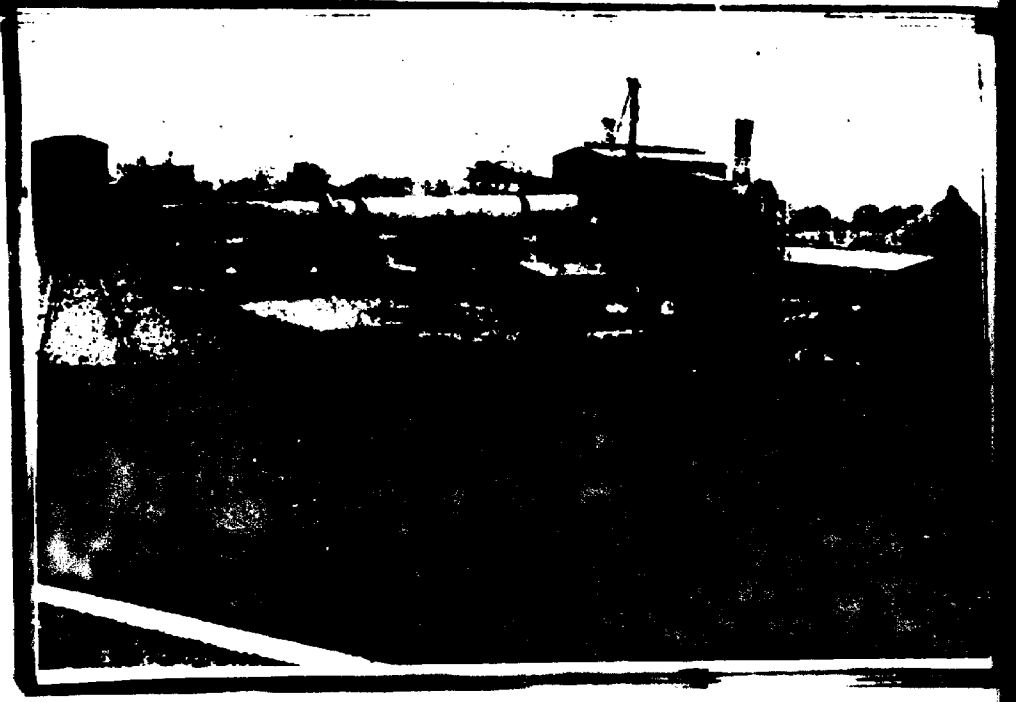
in Cork (allocated £235,437 by the IDA in outright grants since coming into production in 1964).

THE BENNETSBRIDGE DEPOSIT :-

Throughout the late 1960's sources of natural magnesite became progressively more difficult to secure. A synthetic method of producing magnesia had to be found.

Another name for dolomite is magnesium limestone, and when burned this forms a magnesium oxide/calcium oxide mix. If this mixture is combined with seawater, magnesium hydroxide is produced. When this magnesium hydroxide is burned in the presence of silicon and iron oxide, the result is magnesia.

Pfizer did not even have any difficulty acquiring the huge dolomite deposit at Bennetsbridge. It simply applied for a mining lease and the Minister for industry and Commerce literally gave the entire deposit to Pfizer.



PROFITABILITY :-

Because of the high quality of the dolomite deposit, and the fact that it was located sufficiently close to the surface to allow for open cast mining, a very low capital expenditure was required to bring Bennetsbridge into production. A £20,000 drilling programme to outline the extent of the dolomite body; a £100,000 expenditure on the purchase of land; a further £30,000 required to remove overburden- and a £350,000 bill for a crushing plant, blasting machinery, and transportation equipment - and Bennetsbridge was ready to come into production at a cost of a mere £500,000.

At Dungarvan Quigley erected a processing plant to change the dolomite into magnesia. Constructed at a capital cost of £3,600,000 the I.D.A. gave Quigley £1,523,000 towards the cost. Brought into production during 1970 with an annual operation capacity of 75,000 tons of magnesia, it is projected that by 1974/75 annual capacity will reach 150,000 tons.

Given the size of the deposit at Bennetsbridge and the fact that three tons of dolomite is used in making one ton of magnesia, the life expectancy of the Bennetsbridge/Dungarvan complex is 37.9 years.

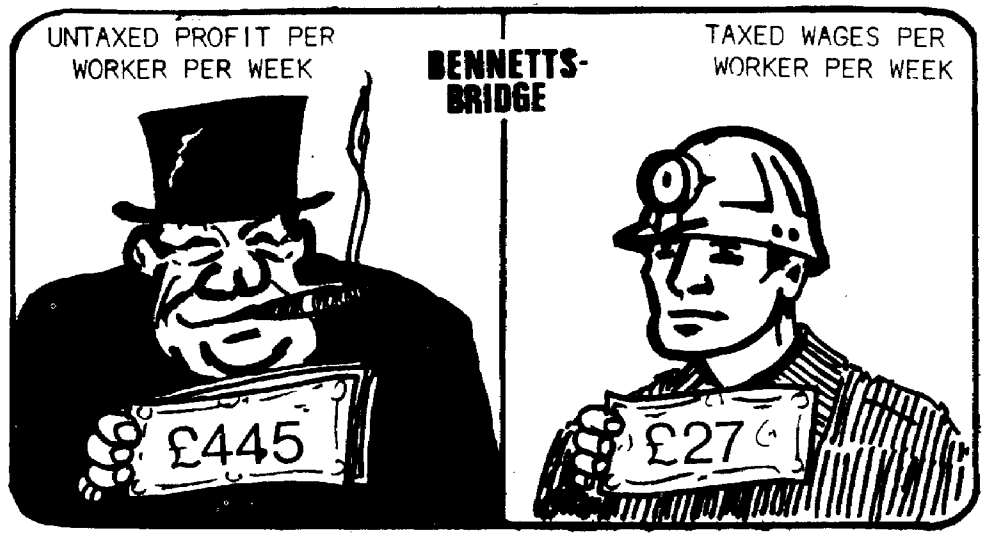
When stage two is completed and Dungarvan is able to produce 150,000 tons of magnesia per year the gross output will be worth £6,000,000 per year, or approximately £40 per ton.

From this 'gross' figure must be subtracted operating costs. For convenience these can be divided into

four phases of production. (1) extraction of dolomite at Bennetsbridge costs £1 per ton - £460,000; (2) transportation of dolomite from Bennetsbridge to Dungarvan at 1.6p per ton mile - £380,000; (3) processing of dolomite into magnesia at Dungarvan; costs include 70,000 tons of fuel oil, 4,000 tons of silicia, small quantities of iron oxide, maintenance of plant and machinery, the employment of 150 people and rates; total - £1,000,000; (4) transportation of magnesia to Cork for shipment overseas - £200,000.

NET PROFIT:-

Operating costs are thus approximately £2 million giving a profit of £4 millions per year. Multiply this by the projected 37.9 years of the complex and we get an operating profit of £151,600,000. Subtract overall capital cost to Pfizer and we get a net profit of £145,600,000.



BALLYNOE

WHO FOUND IT:-

Barytes were discovered at Ballynoe a century ago. To suggest that the Barytes deposit at Ballynoe or the lead/zinc mine at Silvermines (approximately half-a-mile away) were discovered by the mining companies is nonsense.

WHO NOW OWNS IT:-

On September 1st 1960 Silvermines Ltd. granted a sub-lease covering the Ballynoe barytes deposit to the Magnet Cove Barium Corporation of Houston, Texas, USA. Under this sub-lease Cove Barium would pay Silvermines Ltd. 1 dollar (£0.41) for each ton of barytes exported. The agreement would remain in force until December 1st, 1998.

Magnet Cove Barium, operating through its wholly owned subsidiary Magcobar (Ireland) Ltd., brought Ballynoe into production towards the end of 1963.

THE BALLYNOE DEPOSIT:-

In 1966 the Ballynoe deposit was estimated to contain between 20 and 25 years supply - at a 175,000 tons per annum extraction rate. This would extract an ore reserve of not less than 3,500,000 tons of high grade barytes.

PROFITABILITY:-

Given the exceptionally high quality of the barytes found at Ballynoe (85% pure barium sulphate) no processing other than crushing, is required. This, coupled with the fact that the Ballynoe deposit was close enough to the surface to allow for open cast extraction, meant that very little capital was required to bring the Ballynoe mine into production.

Northgate, in its publication *"Statistical highlights of the Irish Mining Industry"*, put the figure at £500,000. This, though believed to be on the high side, is accepted as an approximate estimation.

The operational costs associated with the quarrying of the barytes into a crudely ground variety, vary between 95p and £1.25p per ton. If the barytes is to be sold for drilling use *(and all of that produced at Ballynoe is)*, then it has to be ground further to a 'mid-grade refinery'. This costs an additional £0.60p per ton.

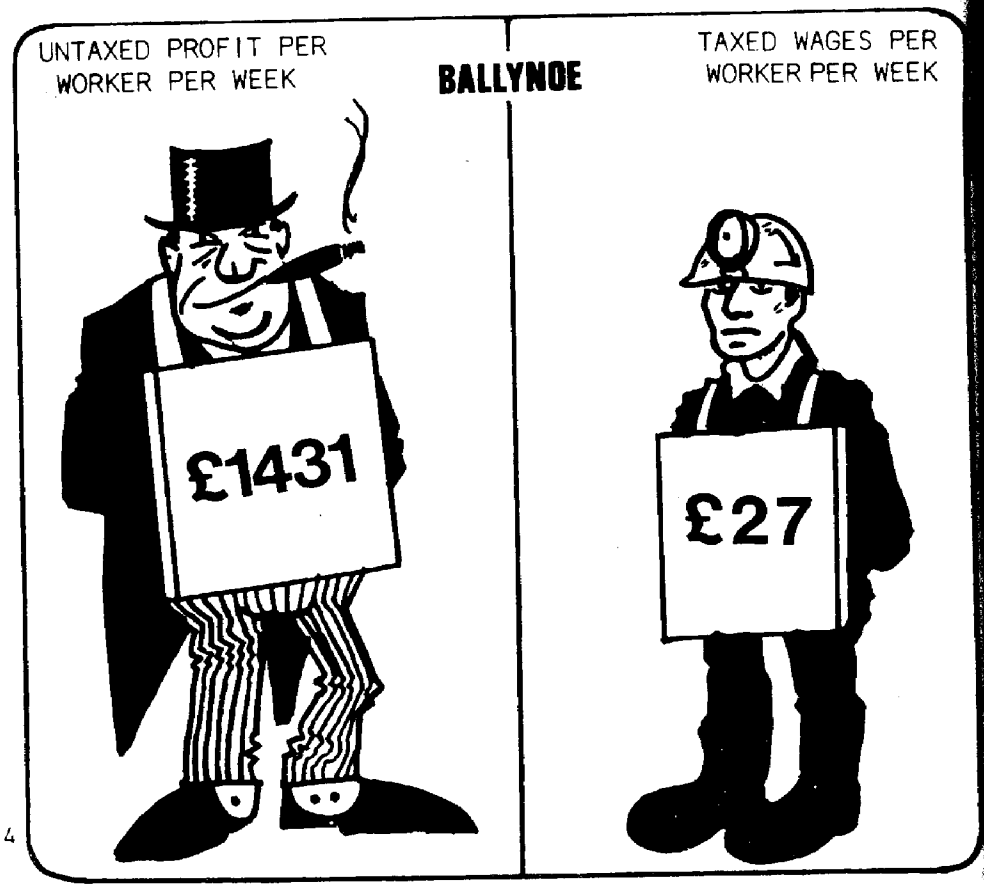
One further expense is incurred in the marketing of Ballynoe's barytes - transportation of the Barytes to Foynes by rail and then by ship to the Gulf of Mexico. This involves an additional cost of £2.0 per ton.

Before quantifying net profit it is necessary to note that only 10% of Ballynoe's barytes is refined to the finer grade in Ireland. This is because the United States imposes a very substantial import duty on ground barytes, whereas crude barytes is duty-free. Magnet Cove Barium loses little, Ireland loses much.

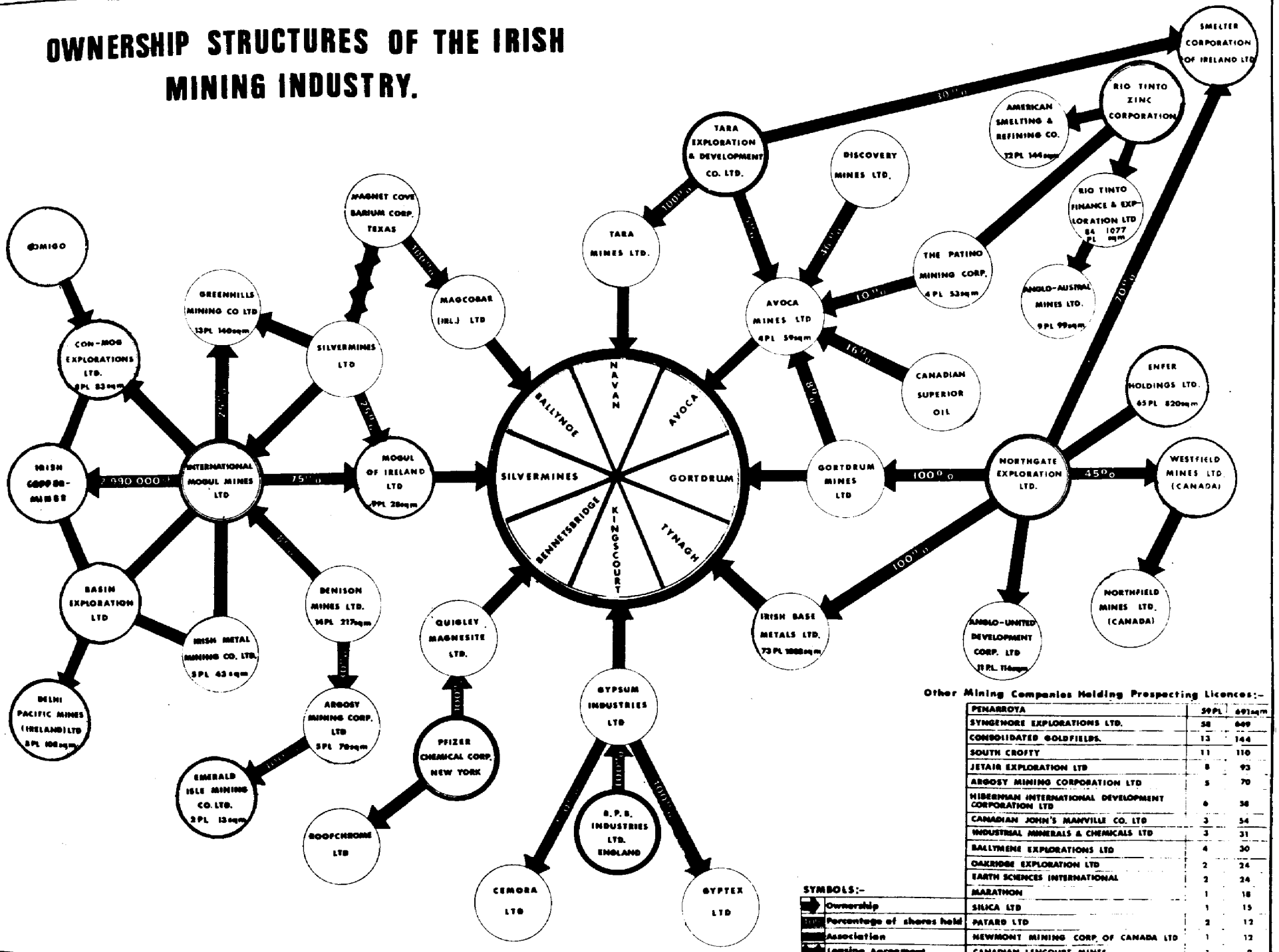
This situation is typical of the overtly exploitative international trading system which favours the industrial output of the Capitalist/Imperialist nations of Western Europe and North America at the expense of the primary producing nations of the "Third World".

NET PROFIT:-

The selling price of mid-grade barytes is £16 per t on the open market. From this must be subtracted all operational costs incurred in refining the barytes i.e. primary crushing - (averaging) £1.10; mid-grade refinin £0.60p; transportation - £2.00. This would give a net operational profit of £12.30 for every ton of barytes ex tracted from Ballynoe. Given that the cost of bringing Ballynoe into production was £500,000, and that there wa an initial reserve of £3,500,000 then the net profit ove the life of the mine will be £42.550,000.



OWNERSHIP STRUCTURES OF THE IRISH MINING INDUSTRY.



Other Mining Companies Holding Prospecting Licences:-

	PL	sqm
PENARROYA	59	691
SYNGENORE EXPLORATIONS LTD.	58	669
CONSOLIDATED GOLDFIELDS.	13	144
SOUTH CROFTY	11	110
JETAIR EXPLORATION LTD	8	93
ARGOSY MINING CORPORATION LTD	5	70
HIBERNIAN INTERNATIONAL DEVELOPMENT CORPORATION LTD	6	58
CANADIAN JOHN'S MANVILLE CO. LTD	3	54
INDUSTRIAL MINERALS & CHEMICALS LTD	3	31
BALLYMENE EXPLORATIONS LTD	4	30
OAKRIDGE EXPLORATION LTD	2	24
EARTH SCIENCES INTERNATIONAL	2	24
MARATHON	1	18
SILICA LTD	1	15
PATARD LTD	2	12
NEWMONT MINING CORP. OF CANADA LTD	1	12
CANADIAN LENCOURT MINES	1	9

SYMBOLS:-

- Ownership
- Percentage of shares held
- Association
- Leasing Agreement

AVOCA

WHO FOUND IT :-

On March 10th 1955, in reply to a question in the Dáil, Mr. Norton, the then Minister for Industry and Commerce reported that: *"the exploration work undertaken by Mianrai Teoranta has established the existence at Avoca of substantial quantities of copper.ore....."*

On January 3rd 1955, Avoca was given to St. Patrick Copper Mines Ltd. - a subsidiary of Irish Metal Mining Ltd., which in turn was owned by International Mogul Mines of Canada. The 'lease' was for a period of 21 years from October 1st 1955. The only stipulation was that Mogul repay the £542,966 that Mianrai Teoranta had incurred in its exploration activities at Avoca. A 'staged' royalty *(depending on the extent of operational profit)* of 4% - 9% was deemed the only contribution that Mogul would make to Ireland. That is, a minimum of 91% of operational profit would go to Mogul.

PROFITABILITY:-

Avoca was brought into production in 1958. No tax was payable for the first 4 years of operation. Sean Lemass, speaking in the Dail on February 8th 1956, takes up the story:

> "The Company (Mogul) is to invest the undertaking approximately £2,250,000...According to statements which are published in Canada, by Mogul Mines Corporation in the newspapers there, in connection with the share issue which they were planning, the Avoca rock averages about 1.12% copper, 0.16% lead, .053% zinc, and 8.1% sulphur (pyrites). In a statement published in the Toronto Globe and Mail on the 17th September 1955, at the insistance of this Mogul Mining Corporation, it was estimated

AVOCA MINES LTD.

On Friday evening last negotiations on a new contract started with a committee of I.T.G.W.U. members. We have to confess that there were some surprises in store for us.

For the past two years we have been pointing out the delicate balance on which the survival of Avoca Mines rests. We have made every effort to disseminate information so that employees here could have the facts concerning this delicate balance. We have stated that only through responsible behaviour by employees can we have a team good enough here to make a success of this venture. We are pleased to state that so far we have received the co-operation that only a responsible crew can give, but after some of the events of the past week one cannot escape wondering are we falling into the dangerous "we got her made" attitude. Certainly this is no time for such an attitude because we couldn't be much further from "having her made".

Recently published figures may mislead some people. According to these figures Avoca Mines Ltd. made an operating profit of $749,851 (£301,145) for the first six months of this year. This is absolutely correct but the all important words are OPERATING PROFIT. In actual fact Avoca Mines Ltd. overspent the amount of $405,330 (£161,000) for the first six months of 1971. How does this come about? Well, the report for the first six months of 1971 from the Board of Directors may be obtained by any person from the Personnel Office.....you are quite welcome to it because there is no secret about anything in this line. The full report here would be complicated but we will attempt to point out the important facts.

To start with, the value of copper produced for the first six months of 1971 amounted to:-	$2,406,841	(£966,603)
Operating expenses amounted to:-	$1,656,990	(£665,458)
This leaves an operating profit of:-	$ 749,851	(£301,145)

The snag here is that operating costs (expenses) are only counted as direct mining and milling. On top of this has to go all the other costs that have to be paid for just like any other bills. We can name a few that you are most familiar with:-

- the cost of building the tailings dam - £80,000
- the cost of the Cronebane project - £100,000
- increase in mine stores - £50,000
- underground development done in first 6 months but not charged against operating costs - £280,000

These development costs are not charged against operating costs this year because they are being done to prepare for operations next year or the year after, nevertheless they have to be done and have to be paid for.

You may think that you see some discrepancies in these figures:-

Operating profit	-	£301,145
Overspent	-	£161,000
		£462,145

But for your example we are giving other than operating costs as:- £510,000. This is because only the stores and U.G. development referred to are for the first six months of the year. The Cronebane and dam costs are the overall costs of the projects,so part of these costs will come in on the second half of this year. On the other hand if we just gave you the Cronebane and dam costs for the first six months of the year, you might get the erroneous impression that it was the overall cost.

Anyway the figures we are interested in are, that Avoca Mines Ltd. has spent £161,000 more in the first six months of this year than the value of copper produced. The next point you are wondering then is, how was this done.when we have already told you that the kitty has run dry. Well, this is done by only paying urgent accounts like wages, etc. but the rest is "in the book" and will have to be paid eventually if the mine is stay in business. If any of you ever went "in the book" you will understand there is a limit to how far anyone can go.

We are not asking anyone to work for nothing but one of the disturbing events as far as we are concerned is that the committee you sent to negotiate a contract seems to have done quite a bit of research into what are the best parts of the best union contracts in the country, lumped the whole works into one and asked us to agree to this as the next contract. It would appear that no attempt was made to research the viability of this company, the effects of excessive wage demands on this viability, or even the effect on this area should the mine close down again. Last year between money paid out in weges and money paid to contractors alone, this company pumped £750,000 into this area. These are points that must be remembered.

One of the easiest things in the world is to make ridiculous wate demands but it can also be highly irresponsible. Needless to say, we did not make much progress on Friday evening. However, we placed some of the hard facts concerning the delicate balance on which the survival of Avoca Mines rests before your committee. So we are hopeful that when we get together again, all of us will have come down to earth and some concrete progress can be made.

With the present depressed copper prices and with £1,000,000 borrowed from the banks by this company, not to mention the unpaid trade accounts, the survival balance is delicate indeed.

To expect a company in this predicament to set the headlines for wages and conditions in the country is highly irresponsible.

----------0----------

According to information supplied to us by the Department of Social Welfare, those persons holding a medical card should report to the company in order to obtain relief from the weekly medical contributions which commence 4/10/71. Consequently, you are requested to present your medical card to the Personnel Officer as soon as possible. There will be no refund in the event of a delay in presenting your card.

that the whole operation will break even so far as Mogul Mining Corporation is concerned with copper selling at 30 cents per pound, that is, £240 per ton....If the company acheives its target of production 4,000,000 ton of rock per year, average 1.12% copper,...the net yield of copper from the operation is likely to be around 9,000 tons per year and with copper selling at £240 per ton, the whole operation, so far as the Mogul Mining Corporation is concerned, will break even...that is to say, the costs involved are clearly round £2,000,000 per year of which....about 10% will represent wages paid to workers at Avoca.

For some time past the price of copper has been fluctuating between £390 and £400 per ton. The price yesterday was £397 per ton. If, therefore Mogul are correct in their estimate that their operation will break even with copper selling at £240 per ton, then it is clear that at present prices, assuming that these prices are maintained, and that their output is at the rate of 3,000 tons per day as they were planning, the profit they will make will be somewhere between £1,300,000 and £1,4000,000 per year tax free.....In addition to the profit which they can hope to earn at the present price of copper, there will also be profit coming in from the sale of the lead, zinc and sulphur concentrates.....With the scale of operation they are planning, and the present price of copper, not less than £5,000,000 in profits (will be forthcoming) during the four years that they will be operating free of tax!'

Frank Aiken came out even more strongly: "We have not got many prospects in this country of generating profits on the scale which may arise in Avoca. A sum of £10 million, £12 million or £13 million is a big sum of money to contemplate being paid for the using of Irish resources, to the Mogul Mining Corp. shareholders in Toronto". (Dail Debate 8th Feb. 1956).

That was 1956. In March 1957, Lemass and Aiken were back in power. In October 1958, Mogul brought Avoca into production under an agreement which allowed that no taxation would be paid on profits earned at Avoca until October 1962. In Sept. 1962, (3 weeks before taxes were due to be paid), Mogul decided to pull out after 3,142,542 tons of ore had been extracted from Avoca. Lemass and Aiken were left with a much depleted Avoca - and a £2.5m debt.

Between 1966 and 1969 an option on the Avoca property was taken out by a consortium of Canadian firms. Avoca was brought back into production at the beginning of 1971. According to Development (Dec/Jan 1970) *"It has been estimated that the loan capital can be repaid in the second year of operations on the basis of a copper price of 45 cents a pound, equivalent to approximately £390 a ton. The view of the market is that the copper price is unlikely to fall below £450 a ton and there are some observers who say it will not fall below £500."* On the 2nd March 1972, copper was selling at between £432 and £451 per ton (depending on the form in which the copper was sold and the method of payment).

NET PROFIT:-

Given an initial ore reserve of 11,000,000 tons (1.0% copper and 7.3% pyrites) it is estimated that a net profit of not less than £10m will be made over the life of the Avoca deposit.

GORTDRUM

WHO OWNS IT:-

Gortdrum is operated by Gortdrum Mines (Ireland) Ltd., a subsidiary of Gortdrum Mines of Canada, which Northgate Explorations Ltd. acquired in August 1970.

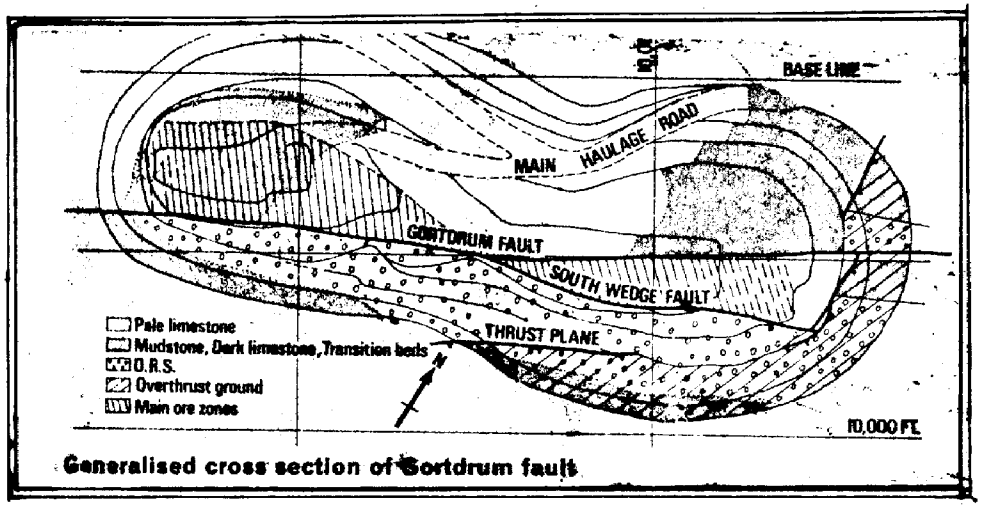
PROFITABILITY:-

On December 31st 1970, 2,003,200 tons (averaging 1.33% copper and 1.02 oz. silver per ton) were stock piled. Adding to these sums the 1,000,000 tons extracted between July 1967 and December 1969, we derive an initial ore deposit in the region of 4,500,000 tons. Over the life of the mine it is estimated that between 700,000 and 900,000 lbs. of mercury will be obtained. According to "World Mining", January 1971, *"The Irish copper mining company, Gortdrum Mines (Ireland) Limited, is most probably the world's largest by-product product"*.

As of December 31st 1971, the estimated life of Gortdrum was five to six years.

NET PROFIT:-

Over the life period of the mine it is projected that a net profit of 14,687,000 dollars (£6,119,626) is realiseable.



Generalised cross section of Gortdrum fault

KINGSCOURT

WHO OWNS IT:-

Kingscourt gypsum mine is operated by Gypsum Industries Ltd. which is owned by BPB Industries Ltd. of England. The mine operates under state mining leases M18, M26, M46, M34, M41, M51 which were issued by the Minister for Industry and Commerce on 1st June 1952, 1st November 1956, 17th April 1968, 1st May 1960, 28th October 1966 and 1st July 1967 respectively.

THE KINGSCOURT DEPOSIT:-

No accurate figures are available concerning the size of the deposit. No one talks about a time when there will be no more gypsum. The RSG thus bases its calculations on the assumption that the various gypsum bodies from which Gypsum Industries Ltd. draws its raw material will maintain an annual extraction rate of approx. 325,000 tons for a minimum period of

25 years. At present Gypsum Industries are doubling the processing facilities at Kingscourt. This is taken into account in the extraction rate given above.

PROFITABILITY:-

For the year ending March 31st 1971, Gypsum Industries Ltd. record an after-tax profit of £213,740. The net profit figure for 1969/70 was £305,000.

Assuming a 50% increase in net profit once the present expansion programme has been completed, the annual net profit for the years ahead should average £450,000.

Over a 25 year period this would amount to £11.2
To this must be added the net profit already generate
at Kingscourt since the commencement of mining operat
This can be conservatively estimated at £2.5m.

Thus the overall net profit for Kingscourt amount

to £13,750,000.

BY COURTESY OF

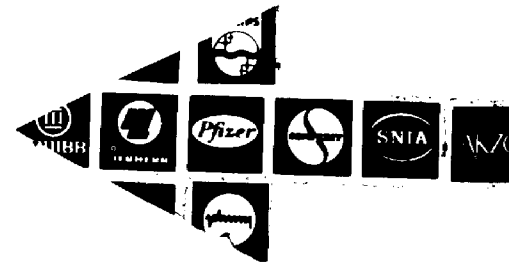
Industrial Development Authority Ireland

Grants (non re-payable), towards your land, buildings and plant

Educated, adaptable labour in plentiful supply. Modern industrial training facilities And grants towards training costs.

No tax whatever for 15 years on export profits when you locate a factory — big or small — in Ireland.

Ireland. Environment for profit.



Les entreprises industrielles de Fran
qui créent des usines
en Irlande y trouvent de nombreux ava

Chapter 2.

THE ZINC SMELTER


2000
jobs
£850
mill-
ion

SMELTER

THE DIRECT EXPLOITATION:-

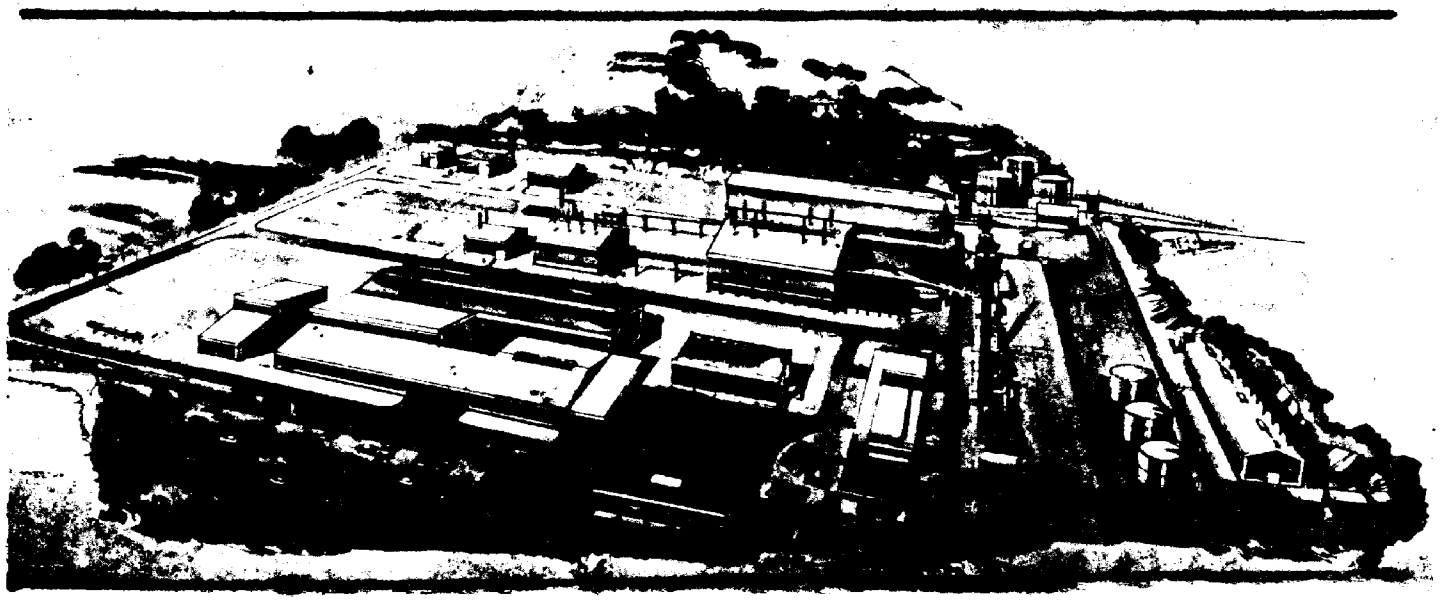
Attempting to project as 'generous' a public image as possible the Smelter Corporation of Ireland Ltd.(SCIL) has consistently inflated both the capital requirements and operational costs associated with its proposed Smelter. Thus Northgate, *(which owns 70% of SCIL share)* projects a capital cost of £28 million for the construction of a Smelter with a 100,000 ton annual capacity; a figure wholly at variance with all other available information.

In an article published in the International Metallurgical Magazine 'Metals and Materials' Nov. 1971, *(statistical highlights of which are reproduced in Appendix 2B)*, S. Wood and S.M. Morgan, quote a figure of £160 per annual ton capacity as being the capital required to construct a zinc smelter of 100,000 tons capacity; £16 million for a smelter of the type proposed by SCIL.

Moore & Wood's estimate is substantiated by the Ruhr Zinc Ltd. smelter at Dattein, Germany; a smelter that has been described as *"a model for the proposed plant to be erected by the Smelters Corporation of Ireland Limited"* (Val Dorgan, Cork Examiner, Feb. 6th 1970).

Brought into production in the autumn of 1968, at a capital cost of 100,000,000 D.M. (approx. £11 million), Ruhr Zinc of Dattein had, by the spring of 1970 *"topped by 30,000 metric tons its two year target of 110,000 metric tons per annum"* (Val Dorgan, Cork Examiner, Feb. 3rd 1970) i.e. the operating capacity of the smelter was 125,000 tons per annum.

As with capital cost estimates so also with operational cost projections. Back in late 1969, when SCIL had in mind the construction of a Smelter of only 75,000 ton annual



capacity, spokesmen for the Corporation were quoting an employment figure of 409 and an annual contribution to the Irish economy of £5.25 million.

Considering that Dattein, with an operational capacity of 125,000 tons per annum, employs only 330 men it is fanciful indeed to project an employment force of 409 for a smelter of a mere 75,000 ton capacity.

The annual operational costs of a 100,000 ton smelter amount to £2.125m.; hard to see how a smelter with only 75% of this capacity could contribute £5.25 million to the Irish economy annually.

A detailed breakdown of the cost structure of a 200,000 ton smelter appears in Appendix 2A. Having a gross metal output over its 35 year life of £866 millions while capital costs will be £32 millions.

For a smelter of 200,000 ton annual capacity *(that size smelter which the Resources Study Group believes to be most compatible with Ireland's resource potential)* a profit of £236,952,000 will be generated (see Appendix 2A). Expressed as an appreciation of SCIL's 9.7 million shares over the life of the Smelter this represents a net return of 87,720%

THE INDIRECT EXPLOITATION:-

That the exploitative nature of the existing economic system is not confined to the usurption of profit is well illustrated by the facts surrounding the SCIL proposals.

Relying solely on proven domestic ore reserve (Feb. 1972) a Zinc Smelter of 250,000 ton annual capacity could be kept operational for not less than 35 years - that period capitalist corporations most often use to calculate returns on capital investments of this king. That even this projection is a massive underestimation of the growth potential of an emergent Metallurgical Industry i Ireland is amply illustrated by the unstated, but basic assumption that no further lead/zinc deposits will be un covered between now and the year 2006; an assumption to ally at variance with all available predictions. After all it was not the Resources Study Group but the Executi Vice-President of Tara Exploration who enthused not long ago how *"One or two substantial deposits every five year was to be expected"* (M.V. O'Brien speaking at the Irish Geological Association Seminar "Mining in Ireland' - U.C Jan. 14th 1971).

SCIL's proposal to set up a smelter of a mere 10,00 ton annual capacity is important, not only in the profit it will usurp, but also in the enormous wealth that will be lost to the Irish people forever by allowing millions of tons of ore to leave the country in a raw state. Th too must be seen to be a cost of a non-integrated exploi ative productive system.

The mineral wealth of Ireland, to be optimally expl ted in the interests of the Irish people as a whole, sho be used to redress the massive imbalance brought about b tween East and West by the economic policies of the exis ing production system. That the SCIL Smelter is to be located in Cork, an area of industrial concentration and stable population growth, at a time when Western Munster Connacht and North West Ulster is being ravaged by popul ion decline and economic stagnation is yet another cost this irrational and unjust economic system. Given the domestic availability of the ore no technical reason wha ever precluded the siting of the smelter in, say, Galway

The principle that it is a national right to breath clear air and drink clean water is no longer with us. Wh a conflict of interest arises between 'profit for the Moguls' and 'clean environment for the people' the forme wins through; witness the Pfizer plant at Dungarvan. T thirty 'conditions' laid down for the protection of the

environment from the SCIL smelter are totally inadequate.

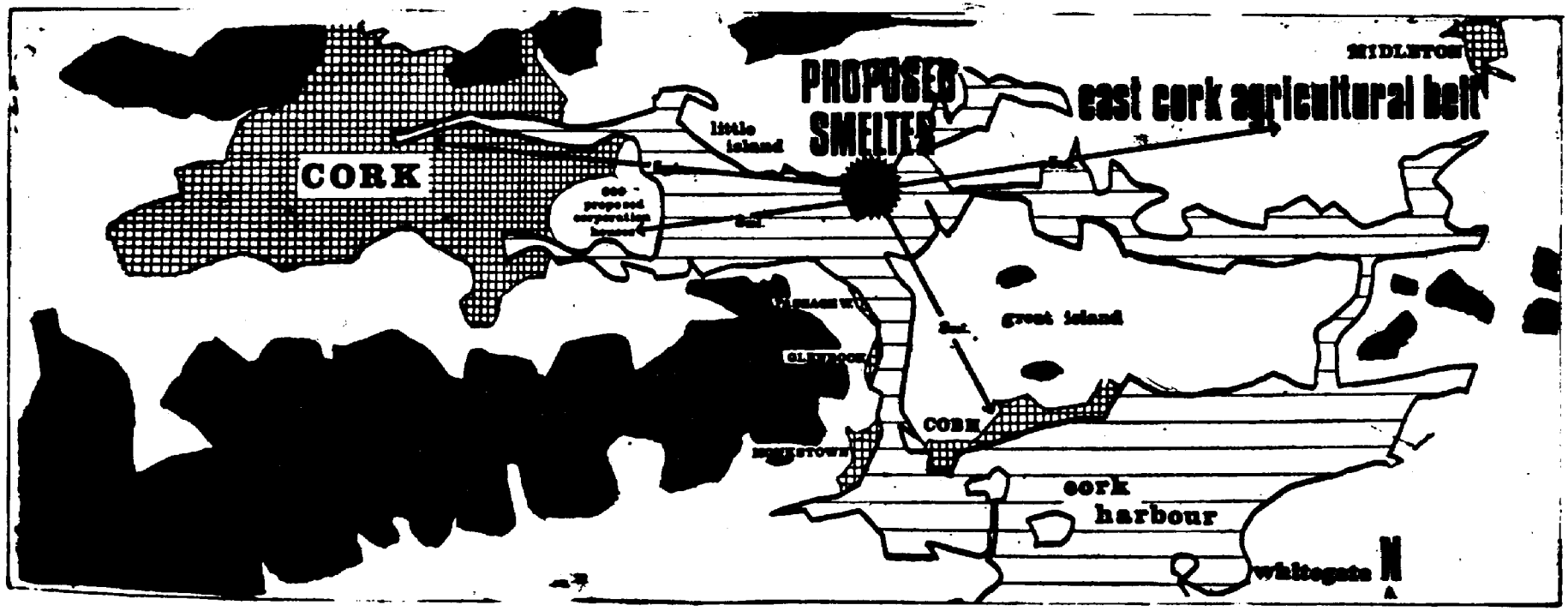
The following four conditions give an indication of what will be allowed into the atmosphere:-

4. The total emission of sulphur containing gases expressed as sulphur dioxide shall not exceed an average of 200 lbs. per hour in any period of 24 hours.

11. The trade effluent shall be discharged via diffusers at the jetty head into the tidal stream at a point not less than 30 feet below.L.W.O.S.T. The maximum discharge of the effluent shall not exceed a quantity of 1,000,000 gallons in any 24 hour period and the rate of flow of the discharge shall not exceed 60,000 gallons in any period of one hour.

13. Subject to the results of the tests referred to in condition number 12 the following limits for concentrations of the under-mentioned toxic impurities in the trade effluent shall apply or such lesser concentrations as the planning authority may determine having regard to the results of the tests:

Lead	2.5	p.p.m.	25 lbs/day
Lime	2.5	p.p.m.	25 lbs/day
Arsenic	10.0	p.p.m.	100 lbs/day
Flouride	25	p.p.m.	250 lbs/day
Iron	20	p.p.m.	200 lbs/day



17. Cooling water from the plant shall be discharged into the tidal stream at jetty head and at a depth not less than 30 feet below L.W.O.S.T. The temperature of the cooling water discharge shall not exceed 35° C. The total volume of cooling water discharged to the estuary shall not exceed 5,500,000 gallons in any 24 hour period.

Even an editorial in Technology Ireland (Sept. 1971) found the conditions laid down inadequate - *"The main air pollution problem associated with electroyltic zinc smelters of the kind proposed for Cork is that of soil contamination due to zinc, lead, cadmium and other meta In our view, the conditions at present laid down do not take sufficient account of zinc emissions."*

That R.S.G. has detailed those costs of setting up non-state Smelter, over and above the usurption of profi by private corporations, must not be taken that rectifi ation of those various wrongs would be acceptable as th basis of agreement. Our demand is simple. The Smelte must be set up by the Irish people, and any surplus gen- erated must go the Irish people in its entirety.

Cell room of an electrolytic zinc plant, showing cathodes being removed for stripping off the zinc.

Chapter 3.

MINERAL, OIL & GAS EXPLORATION

" The old mine is situated in the townland of Carhoon and about a mile and a half N.E. of the village of Tynagh.... That in former times it was worked rather extensively is evident from remains of old shafts and spillbanks.... In the vicinity of the old workings various pieces of galena and pyrites were picked up and the inhabitants of the hamlet informed us that when the grounds are tilled in Spring all their fowl die, being poisoned by something that they pick up..."

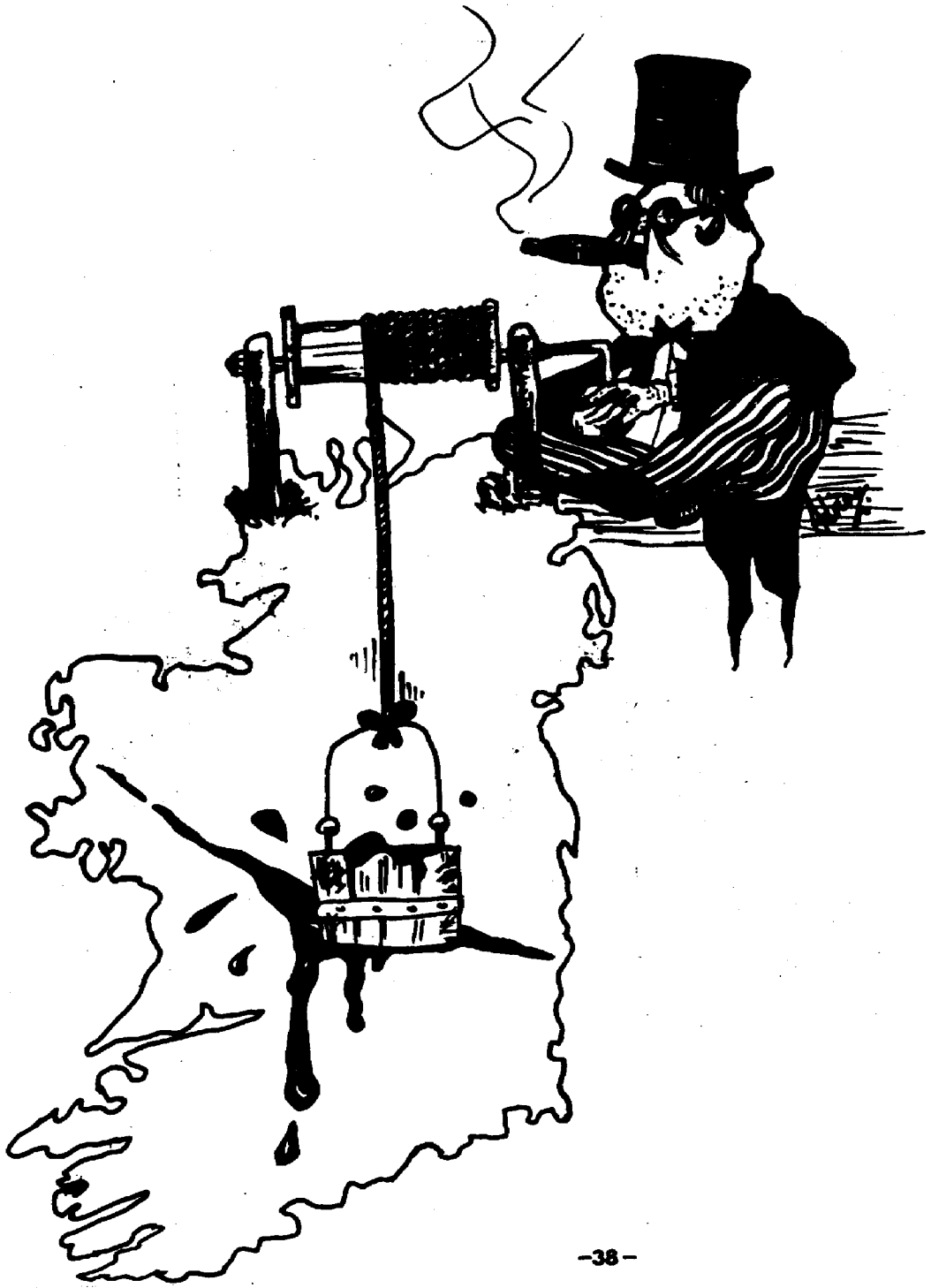
(MEMOIR, GEOLOGICAL SURVEY OF IRELAND, 1965.)

".... Local people have long been aware of the existance of a mine there. Samples of Tynagh lead could be seen on display in the nearest technical schools."

(BUSINESS & FINANCE, 15th OCTOBER 1965.)

".... A significant part of the present actual and potential growth of mining, however, lies in discoveries (e.g. Tynagh, Gortdrum, Keel) removed from any major former mining."

(M.V. O'BRIEN - "REVIEW OF MINING ACTIVITIES IN THE REPUBLIC OF IRELAND." PAPER PUBLISHED BY INSTITUTION OF MINING AND METALLURGY, LONDON 10th APRIL, 1966.)



EXPLORATION

MINERAL EXPLORATION:

THE GREAT LIE:-

Much nonsense has been talked about mineral exploration in Ireland - the cost, how the "mining companies found the mines" etc. Apologists for the multi-national corporations have taken upon themselves to "justify" the wholesale exploitation of Ireland's mineral wealth. Their main 'argument' *(if argument it can be called)* is based on the premise that the Irish people do not have the capital or know-how necessary to pinpoint the location of their own mineral wealth. This is an arrogant and contemptuous lie which must be demolished once and for all.

- During the entire period of modern Irish mining (1957-72) an estimated £6.5m has been spent on mineral exploration in the 26 counties - a sum which is less than the price of one Jumbo jet(£8m)!

- Tara's eight year exploration programme in Ireland cost them £650,000 (Annual Report 1970) - a sum hardly enough to buy one computer!

- Geo-chemical surveys, similar to that which uncovered the Navan orebody, have already been completed by the Soils Division, An Foras Taluntais in parts of Clare-South Galway, Limerick-Tipperary and South Tipperary-Waterford-Kilkenny. In each region, a small number of areas have been found to contain a high concentration of various metals thereby suggesting mineralisation (An Foras Taluntais, Soils Division, Research Reports 1969 and 1970).

- 95% of all exploration being carried on in Ireland at present is being done by Irishmen in the pay of the international companies. To suggest that these men would not be able to function within the context of a mining industry owned and run by the Irish people is ludicrous.

- As is shown in the following table, six of the eight major mining operations in Ireland at present were either found directly by state organisations or were known to exist for centuries. Details are given in Ch. 1 and in the introduction.

Mine	Who found it
Silvermines	History dating from 1604 (possibly 900)
Ballynoe	Barytes discovered circa 1860
Avoca	Mianrai Teo. (a state-sponsored body) from 1949-1954. Area also has history of mining.
Tynagh	Irish Geological Survey pinpointed fault which contains orebody.
Bennetsbridge	Irish Geological Survey.
Navan	Soils Division, An Foras Taluntais, (Agricultural Institute).

Ireland is in a very fortunate position vis-a-vis prospecting. It is small, accessible and with 50% of its land mass lying within a metallogenic province - the lower carboniferous strata which is a high yield area. At the Irish Geological Association seminar (in UCD, Belfield, 16th Jan. 1971), M.V. O'Brien disclosed how a major ore find could be

expected every two to five years. Writing in Management (May 1969), he highlighted the factors which make mineral exploration less costly in Ireland than elsewhere "..*The Geological Survey of Ireland is a foundation on which very much of the prospecting relies... Our network of roads leaving only the rarest parts of the country more than two miles from tarmacadam...The means of access for prospecting is so much easier here than in many parts of the world. And for the disposal of products that may be found the mineral industry does not see Ireland as a remote corner of Europe but looks at the globe as a whole and sees us connected by a short inland transport, good ports and short sea haul to the great and growing markets of the continent...*"

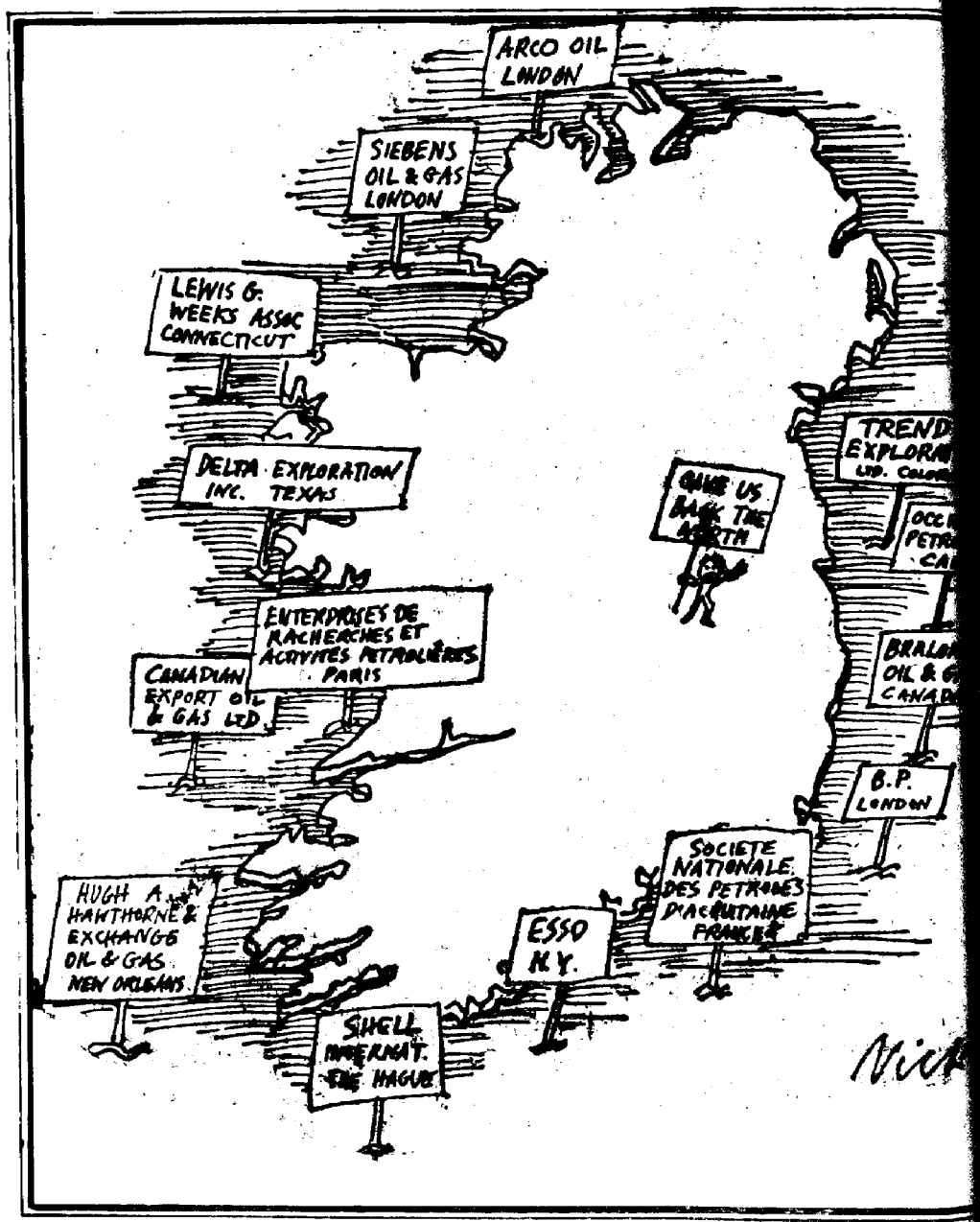
Thus the facilities for carrying out a systematic island-wide exploration programme already exists in Ireland.

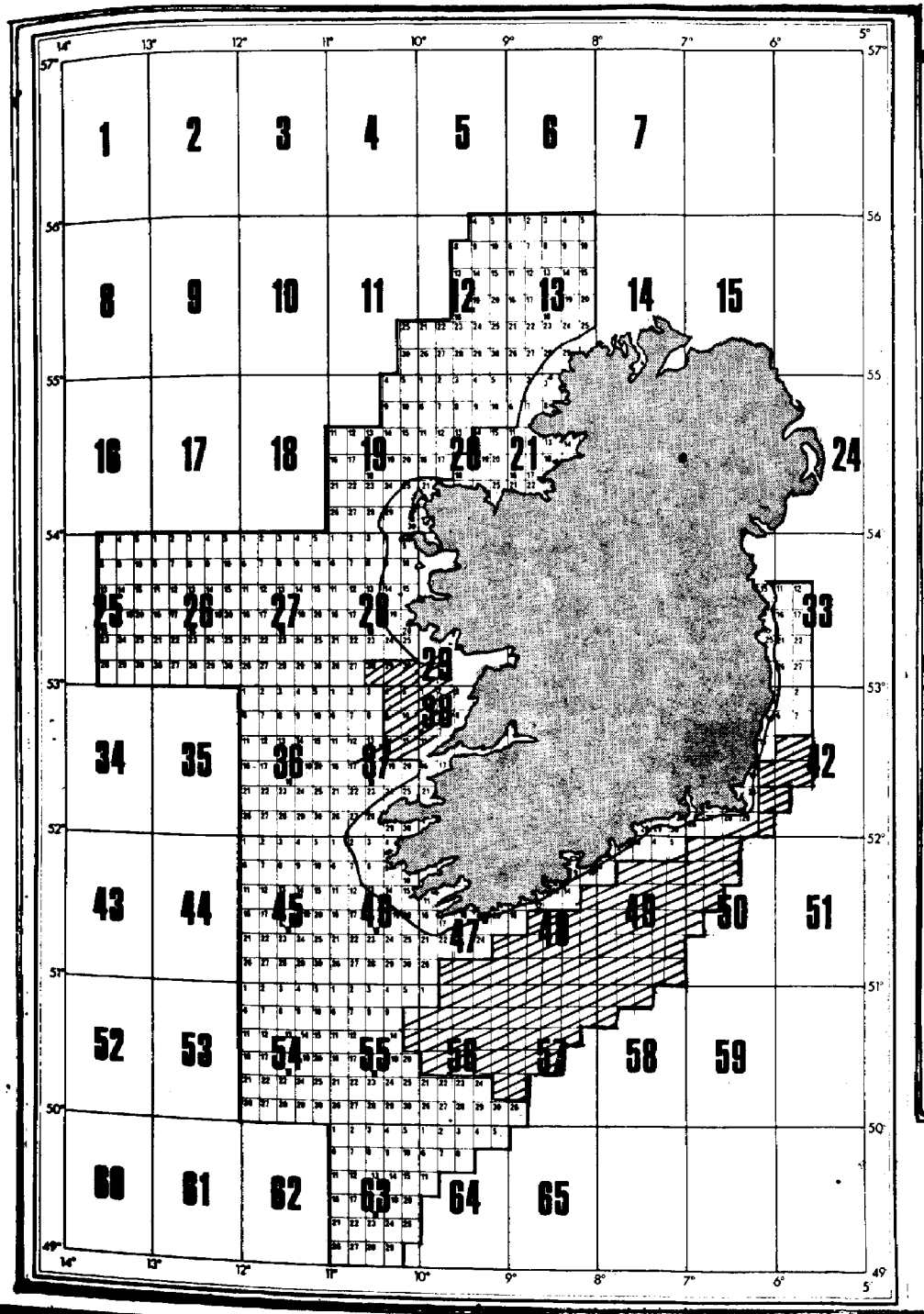
OIL & GAS EXPLORATION:

"The recent announcement by Marathon Oil of the discovery of gas off the south-east coast is probably as significant a milestone in our mining industry as was Tynagh or Tara. The possibility of bringing the gas-wells on stream must be considered good at this stage. The ramifications could be far-reaching eventually possibly reducing our dependance on imported coal and other combustible fuels. Marathon retains rights off our coastline to explore and exploit mineral deposits. Earlier this year the Minister for Industry and Commerce divided the remaining two-thirds of the coastline into separate blocks between the major international oil companies."

(Business and Finance 16th Dec.1971)

On May 7th 1970, offshore petroleum lease W01 was issued to Marathon Oil Co. of Ohio for a period of 21 years. By the beginning of 1972, Marathon had acquired offshore petroleum rights to prospect and exploit the mineral wealth on nearly one-third of Ireland's entire coastline. *(See Map for the exclusive licence area held by Marathon).*





According to the agreement signed between the Dublin government and Marathon, 87½% of all profits will go to Marathon while the Irish people will have to make do with 12½%.

"Taking a mean figure of £10,400 a day, Marathon's bill during the nine months since May 8th last, when drilling began and the present efforts to close the well would be around £2½m and possibly as high as £3m. While it is not clear what percentage of this would pass into circulation in Ireland the proportion would be relatively small.

These expenses are a mere pittance when viewed against the company's revenue last year of £425m. Earnings were £35m.

The latest available figures for Marathon's world-wide "exploration expenses" amounted to £7½m. in 1968, compared with £16m in 1964. The 1970 total is expected to be much higher."

(I. Times 10 Feb 1971 our emphasis)

During 1971, the remaining two-thirds of the coastline under the legislative jurisdiction of the Dublin Government were allocated to a dozen multi-national oil corporations for exploration. (See Map 2).

It is believed that, at present, agreements are being drawn up to grant these companies exclusive ownership of the natural wealth of the entire Continental shelf under Dublin jurisdiction.

LICENCES ISSUED FOR OIL & GAS EXPLORATION –

	non-exclusive
	exclusive (Marathon)

Area under exploration licence.
Dec 1st 1971.

LEAD-ZINC potential for a metallurgical industry

This is where the action is!

The Irish Mining Industry now employs almost 2,000 people. Its payroll exceeds £3m annually. This in relation to a total work force of 275 and a payroll of £250,000 in 1965. Last year mining contributed over £20m to Ireland's external trade figures and effected a 10% reduction in the imbalance between imports and exports.

It is fast becoming one of the country's most important industries and its future growth is now guaranteed following the extensive zinc-lead dre find at Navan by Tara Mines Limited.

TARA MINES LIMITED

Railway St.
Navan,
Co. Meath.

Under Tara's direction Navan will become th centre of Ireland's Mining Industry and will rat among the largest zinc producing areas in the world.

This means increased prosperity not only for Navan but for all of Ireland.

Visit the Tara Mines Stand at the Navan Trade Fa

After profit repatriation and capital imports have been deducted, the net contribution of the present mining industry is reduced to less than £5m per annum. ..

Only one-fortieth to one-fiftieth of the wealth generating potential of the known mineral reserves will enter the Irish economy, given the present ownership structure of the Irish mining industry.

ZINC/LEAD

Zinc and lead are among the world's most used metals ranking fourth and fifth after steel, aluminium, and copper in tonnage consumed. They are considered jointly here because most deposits containing significant amounts of one metal also contain the other, and because they are the principal metals found in Ireland.

THE LAST 20 YEARS

In 1952 the world consumption of zinc, excluding the socialist countries, was 2 million tons. In 1970, 3,934,000 tons of zinc were consumed, that is a 100% increase in demand in 18 years.

The consumption of lead, reaching 3,207,000 tons in 1970, rose at an annual rate of 3.8% throughout the 1960's.

ZINC -

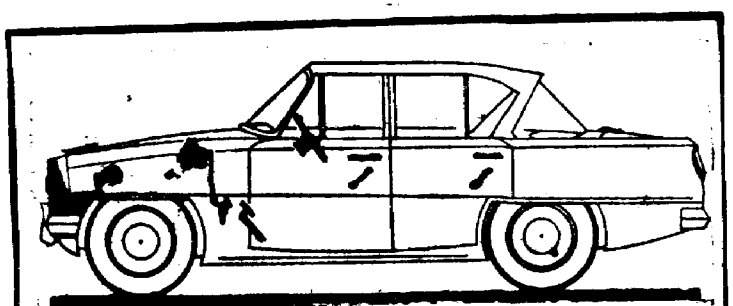
Before the second World War, the major outlets for zinc were brass, sheet-zinc for building, and galvanizing in that order.

By the early 1950's, galvanizing and other zinc coatings had replaced brass as the most important end-use. Die-castings had become more significant in the world picture than sheet-zinc.

Today the pattern has developed further and about 35% of the total world consumption of zinc (including scrap) is used in the form of protective coatings for iron and steel-work. Die casting accounts for another 25% brass-making for 20% and sheet zinc for a further 10%. Other important uses of the metal are in the pigments zinc oxide and zinc dust.

Zinc Coatings: Because of their excellent resistance to corrosion in moist atmospheres, in fresh and salt water, and in contact with many natural and synthetic substances zinc coatings are widely used for the protection of finished products ranging from structural steel-work to nuts, bolts, metal strip and sheet wire and tube.

Die Castings: Alloys based on special high grade zinc of minimum 99.99% purity are used for pressure die casting, a fast mass production process for making strong accurate components with excellent corrosion resistance and able to take a variety of decorative finishes. Molten alloy is injected under pressure into a steel die made in two or more parts to permit removal of the castings, and runs of many thousands of identical castings can be made at a high production rate, depending on the size and complexity of the part and the tolerance to be held. It is estimated that over half the total weight of die-castings made is used for the car manufacturing industry - many as plated functional and decorative exterior components and trim. Die castings are also widely used in domestic appliances, locks, door handles, bathroom fittings and other items of builders hardware, for a variety of engineering components where dimensional accuracy and high strength are required, and for many other products including scale model toys.



Automobile - with some of the zinc alloy diecast parts indicated in black.

Brass: Brasses are copper-zinc alloys with a zinc content ranging from 20% to 45%, and sometimes containing additions of other metals. Brasses are easily recognised by their yellow colour and because of their ease of working, high corrosion resistance and good electrical conductivity are widely used for plumbing and electrical components.

Sheet Zinc: Rolled zinc sheet and strip is mainly used in dry batteries, and in the printing and building industries. Another long-established use of zinc sheet is in the form of special plates used in printing for photo-engraving and for lithographic work. The sheet is rolled to close thickness tolerances, and produced with a controlled uniform fine-grain structure.

Sheet zinc is widely used in building in France, Germany and Belgium where it is a major outlet for zinc. It is also used in building in Britain and other countries but to a lesser extent in the form of roofing, cladding, gutters, rainwater pipes and flashings, zinc sheet gives long, maintenance-free service.

Zinc Oxide: Zinc oxide is used in paints, where its presence in the pigment mixture imparts toughness to the film, prevents yellowing and helps to resist mildew growth. It also retards the fading of tinted paints. Its major use is as an essential ingredient of many rubber compositions - both natural and synthetic - where it serves to accelerate the vulcanizing process, and strengthens the product. Car tyres contain up to 5% zinc oxide. It also is used in cosmetics, match-heads, ceramic glazes and some electrostatic copying paper.

Zinc Dust: The biggest single use for zinc dust is in the production of sodium hydrosulphite and sulphoxylate, which are used to bleach wood pulp for paper making. It is used also in gold recovery and electrolytic zinc refining.

LEAD-

The main use of lead and its alloys is in the lead/sulphuric acid electrical storage battery of 'accumulator' No other material can supply the necessary electrical, chemical and corrosion resistant properties as economically as lead.

The chemical industry uses large quantities of lead in contact with acids, and chromium electro-plating equipment is lead lined, and uses lead anodes.

As an alloying element lead has many uses. It is more economical than tin and has many similar properties being present in many tin based bearing alloys and almost all tin based solders and fusible alloys.

Lead is added to steel, aluminium and copper alloys up to 0.3 per cent to improve machinability. It does not dissolve in any of these materials thus has little effect on their properties, but does form a discontinuity which prevents long curling cuttings. The soft lead also acts to some extent as a built in solid lubricant, but there remains considerable doubt as to the extent of the practical advantage of this theoretical property.

Lead sheeting has been the standard protection until recent years against X-Ray and radio-activity.

Lead and its alloys have no natural resonant frequencies and it is thus a 'silent' metal. This property is being studied at the present, as much of the world's considerable noise is caused by the vibration of metals.

The corrosion resistant and bearing properties of lead when applied as an electro-plated deposit are now being exploited.

Lead oxide as a base for paints has been used for many years, and there are modern 'paints' chemically producing an adherent deposit of metallic lead on steel which show considerable promise.

V CONSUMPTION AND USES OF LEAD

Total during period

End Use	1962	1963	1964	1965
Cables	107,850	108,530	120,145	132,610
Batteries — as metal	34,356	37,770	42,319	42,161
Battery Oxides(*)	35,174	38,281	43,799	42,743
Lead Alkyl Anti-Knock Compounds	26,865	30,384	34,603	36,136
Other Oxides and Compounds	25,351	23,725	26,348	26,731
White Lead	8,270	7,645	6,860	4,174
Shot (incl. Bullet Rod)	5,603	5,302	5,004	5,817
Sheet and Pipe	67,559	66,854	71,304	69,069
Foil	1,554	1,434	1,320	1,326
Collapsible Tubes	3,346	3,628	2,840	2,374
Other Rolled and Extruded	6,438	5,869	5,721	5,539
Solder	15,959	15,879	16,816	15,655
Alloys	22,324	22,855	23,070	23,561
Miscellaneous Uses	18,560	18,932	19,905	20,351
Total Consumption	379,209	387,088	428,664	428,247
Monthly Average	31,601	32,257	35,055	35,687

THE YEARS AHEAD

FUTURE SUPPLY & DEMAND

In a study entitled *"Natural Resources in Latin American Development"*, (By Grunwald and Musgrove) a projection as to the likely aggregate supply and demand for both lead and zinc to the end of this century is made. It is most revealing:

"Cumulative world requirements over the period 1960 - 2000 have been estimated at approximately 130 million tons of lead and 170 million tons of zinc. Reserves, as of 1965, were only 50 and 85 million tons respectively. At that time inferred reserves were estimated at some 100 to 150 million tons of lead and a comparable amount of zinc. These quantities would meet world needs to the end of this century, but with a much smaller margin of adequacy than for other major metals. Reserves of Iron ore are enormous, and methods are already developed for mining relatively hard, low-grade materials. Satisfaction of future demand for copper appears to depend more on cost reductions allowing the mining of known low-grade ores rather than new discoveries. For lead and zinc, in contrast, it appears that large new reserves need to be found over the next decades. Recent exploration in Missouri indicates the existance of about 30 million tons of lead and 18 million tons of zinc. Several million tons of each have also been found in New Brunswick and Ontario. These discoveries although substantial do not greatly affect the long-run reserve balance.."

This projection is reinforced by a more specific study of zinc/lead/copper/silver appearing in Paul and Anne EHRLICH'S book *"Population, Resources, Environment, Issues in Human Ecology"* (Published by W.W. Freeman and Co., San Francisco, 1968). Taking all known recoverable reserves (as of 1968), without reference to increasing population, consumption rates, unknown deposits and future use of presently submarginal ores, the Ehrlich's project the date on which known deposits of these metals will be exhausted.

	WORLD	UNITED STATES
Zinc	1968	1978
Lead	1982	1972
Copper	2000	1990
Silver	1986	1970

THE GEOGRAPHICAL DISTRIBUTION OF THE WORLD'S LEAD/ZINC RESERVES

The geographical distribution of the world's lead/zinc reserves was as follows in the early 1960's. It has not changed appreciably since:

	Lead		Zinc	
COUNTRY OR REGION	RESERVE	SHARE(%)	RESERVE	SHARE(%)
Latin America	6,500	13	10,000	12
United States	6,000	6	12,200	14
Canada	9,000	18	19,000	22
Western Europe	5,600	11	13,000	15
Communist Countries.	10,100	20	13,000	15
Africa	4,000	8	4,500	5
Asia	2,600	5	8,000	9
Oceania	6,000	12	5,300	6

(Sources: *U.S. Bureau of Mines, Mineral facts and problems 1965.*
Lead: A Materials Survey (USBM 1962).

THE GEOGRAPHICAL DISTRIBUTION OF FUTURE DEMAND AND SUPPLY FOR LEAD/ZINC

The tonnage of lead and zinc minded, smelted and consumed throughout the various regions of the world in 1970 appear below. It is highly significant to Ireland's future position as a major base metal producer.

Western Europe is now the principal consumer of lead and zinc. It is also the largest net importer of both lead and zinc, taking approximately 6,00,000 tons of each

1970 000.s m.tons	Mine Production (metal content)		Metal Production		Consumption (refined met	
	Zinc	Lead	Zinc	Lead	Zinc	Lead
EUROPE	734	460	1381	1189	1555	1430
Belgium	-	-	232	89	142	57
France	19	29	224	170	220	194
Finland	63	-	57	-	9	-
German F.R.	39	43	301	297	400	320
Ireland	90	59	-	-	-	-
Italy	110	35	142	75	175	190
Spain	93	69	87	78	72	95
Sweden	89	76	-	57	35	53
U.K.	-	-	146	268	281	262
Yugoslavia	83	118	82	100	60	46
AFRICA	255	207	143	142	79	40
Congo D.R.	95	-	62	-	-	-
Morocco	-	81	-	25	-	-
South Africa	-	71	-	68	-	22
Zambia	65	-	54	-	-	-
AMERICA	2467	1327	1471	1522	1350	1345
Canada	1219	352	411	185	114	60
Mexico	250	171	78	179	40	67
Peru	330	164	69	72	-	5
U.S.	550	547	871	1028	1083	1124
ASIA	370	115	719	226	838	329
Japan	280	64	682	209	628	212
OCEANIA	446	434	261	206	117	63
Australia	446	434	261	206	105	57
TOTAL	4268	2543	3975	3286	3939	3207
SOCIALIST COUNTRIES	1134	839	1062	904	950	906
Bulgaria	72	85	72	97	N.A.	N.A.
Poland	240	60	208	54	135	76

in the 1960's. The U.S. imports some 300,000 to 400,000 tons of lead and about 500,000 tons of zinc annually.

THE OUTLOOK FOR LEAD & ZINC

In 1969, the wheels of capitalist production throughout the world, began to slow down. This was made obvious in 1970, when consumption of zinc declined by 4.5% of the 1969 level and lead consumption increased by only 1.5%.

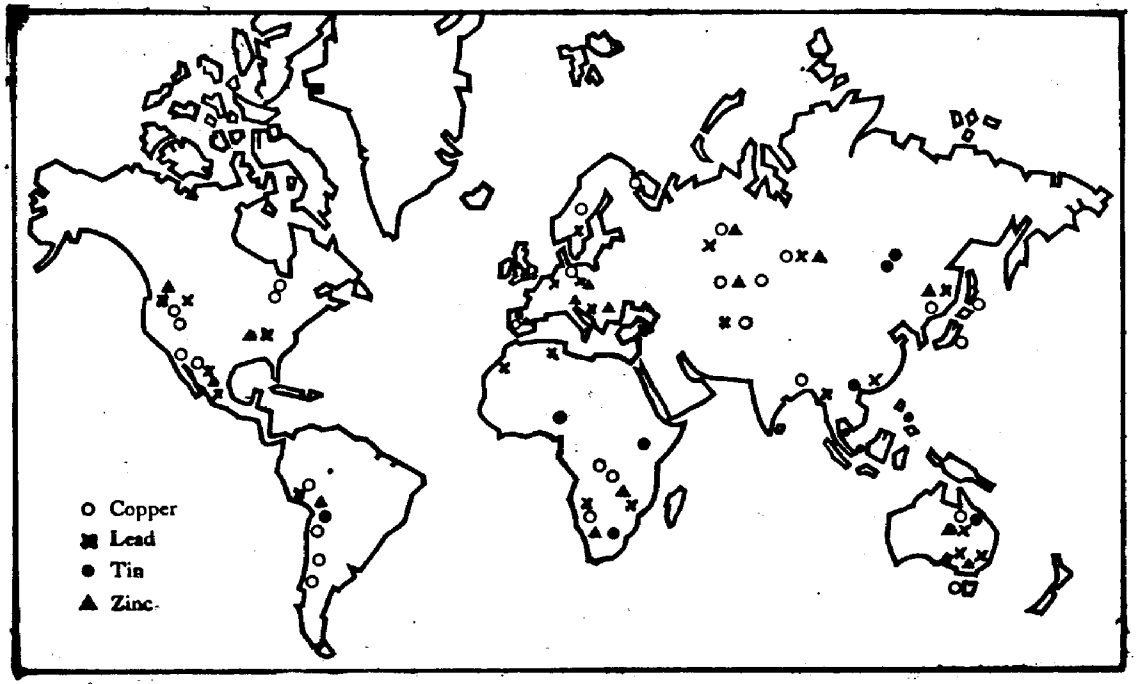
The world base metal market was thus temporarily over supplied. This short-term saturation quickly reflected itself in the prices offered for both lead and zinc.

1971 saw an escalation of the crisis of international capitalism. The major economies of Western Europe and North America remaining sluggish.

By the Autumn of 1971, the over-supply of Zinc/lead had been redressed. The price of the metal began to rise. Throughout the first two months of 1972 the price of a ton of zinc has been considerably above £140, reaching £153 per ton by March of 1972.

Thus even with a recession still in progress throughout the capitalist world, zinc has been able to maintain itself, albeit, after a slight adjustment in production.

With more than a third of the world's consumption of lead being used for the manufacture of batteries, mainly automobile batteries, this base metal was very severely hit by the overall crisis in international capitalism in 1971. Lead and zinc production being interrelated, it was not possible to vary the production of lead independently of zinc. Oversupply continued throughout the Spring of 1971.



Location of Lead/Zinc Reserves

By the Spring of 1972 the upturn had begun, with lead prices reaching £120 per ton by the end of February.

What the past two years illustrate, above all else, is that any setback for zinc or lead in the future is likely to be of a very temporary nature. This point was made very forcedly in the 'Annual review of mining', published for both 1970 and 1971. A composite of which is reproduced below.

> "Although zinc and lead had poor years in 1970 there were few signs of substitution and the setbacks in consumption were largely the outcome of the slowdown in economic growth in the main industrialised countries.

Consumption grew strongly during the 'sixties', zinc on average by six per cent and lead by 3.8 per cent a year, and with improvement in economic grwoth within the next year or so there is every reason to believe that this upward surge will be resumed. Moreover, both metals can be expected to benefit from economic expansion in the developing countries which together already take 11 per cent of the total (non-socialist world) consumption of each metal. However, several significant changes are to be expected both in consumption and production during the next few years.

—FOR LEAD

Lead consumption now seems bound to be affected by the anti-pollution campaigns which have become a feature of political life in many countries. Although the use of lead additives may not in themselves be contributing greatly to environmental pollution, it is being claimed that the catalytic devices being developed to reduce automobile emissions can only work satisfactorily with low-lead or lead-free gasolines. It seems inevitable that the amounts of lead in gasolines will be reduced in the next few years, but it is unlikely that their use will be abandoned altogether. Lead additives take at present about 10 of the total world lead consumption - about 21 per cent of the United States consumption but only 5 per cent in Europe. However, additive manufacturers use only primary refined lead.

The future of lead would seem to depend primarily on growth in the demanf of batteries. The lead battery is a highly developed and efficient power pack for which there is no alternative in sight whether for automobiles or for powering industrial trucks and other electric vehicles, and the prospect in this area is very bright indeed. By comparison, the gradual decline in lead cable sheathing and some of the other more traditional uses is perhaps not of great significance.

— FOR ZINC

Zinc's future continues to depend mainly on galvanizing and die casting, and in Europe also on Brass. Europe still lags behind the United States and Japan in the production of continuously galvanised steel strip and colour-finished strip and there is a great potentia for expanding this market.

Die casting continues to do well in most countries and although some ground may be lost in the automobile industry if the trend towards using less decorative trim continues, thegrowth in the demand for die casting in other industries is very encouraging.

Probably the greatest change in lead and zinc duri the next few years will be in the pattern of supplies. When consumption picks up again, the U.S. is going to b more dependent than before on imports of zinc metal.

When new European zinc refineries at present under construction or planned come into production, Europe co become a substantial net exporter of zinc metal, seekin markets throughout the world.

Most of the new European refineries will of course be dependent on imported concentrates - an intriguing thought since even in 1970, when both zinc and lead wer in over supply, the market for concentrates remained tight.

Looking further ahead, it would be unduly pessimistic to view any setback in lead and zinc during the 1970 as more than temporary. Both metals are well placed to continue the strong upward growth in consumption which was such a pronounced feature of their development in the 'sixties.'"

A more precise projection of what is to be expected of Lead and Zinc over the next decade is to be found in the Mining Journal Jan. 7th 1972.

> ..."*Two slumps and some ten years from now, ...the metals trade may be contemplating minimum prices of around £500 for copper, £120 for lead, £150 for zinc and £1,800 a ton for tin. In between there will be the two sets of 'highs', but what these prices will prove to be is 'anybody's guess'...*"

WHAT IT MEANS TO IRELAND:

Strategically located between the two major industrialised regions of the world, both of whom need to import large quantities of lead and zinc, Ireland is indeed in a very fortunate position.

This however does not mean that Ireland will necessarily benefit much from the mineral wealth that she possesses. - (see Ch. 7)

At present only one fifth of the wealth generating potential of the primary processing stage (smelter output value) enters the Irish economy (see chapter 5). If the post primary processing stage, where the crude metal is moulded into consumer products, is taken into consideration the proportion of the wealth generating potential entering the Irish economy becomes even more significant - something between one-fortieth and one-sixtieth (see chapter 5). In RSG's view this loss to the Irish people is totally unacceptable.

The Resources Study Group believes it to be imperative that factories be set up to process the ore mined in this country. It warns, however, that a vertically integrated metalurgical industry does not necessarily mean a democratic or self sustaining metallurgical industry.

It might well be that a few multi-national Corporations, with the help of the I.D.A., would set about the smelting and processing of Ireland's ores in Ireland. This, besides being manifestly undemocratic, would lead to the establishment of a metallurgical industry which, though vertically integrated, would be of a temporary nature; once Irish ores were exhausted these Corporation's would depart for area's of greater investment returns.

It is RSG's contention that, given the structurally underdeveloped nature of the Irish economy, the increasing weakness of native Irish capitalism, the only viable manner of setting up a metallurgical industry in is by state enterprise.

RSG notes in this regard that the policies of the past must not be repeated . The semi-state companies which have been set up in this country in the past have been constrained and controlled by the needs of private enterprise. They have either been denied access to the growth areas of the economy and/or have been prevented from generating the surplus due to the ludicrous pricing policies forced on them by the Dublin and Stormont governments.

RSG's demands are thus: firstly, nationalisation of the mines without compensation. This is merely a minimum demand to allow public control over the distribution of these resources and their surplus generating capacity. This leads on to RSG's second demand: that the natural resources be used to develop a metallurgical industry; that this metallurgical industry be set up as a state enterprise run on state enterprise lines; that this industry be so developed as to allow for the emergence of a viable industrial base in Ireland, and that the internal organisation of such an industry be based on the principle of worker democracy.

CONDITIONS OF EXPLOITATION

How the Workers are Maltreated

MOGUL, in Silvermines, Co. Tipperary, is accused, in effect, of blackmail, in a statement last night by the Irish Transport and General Workers' Union.

The mines management is stated to be dealing with the workers on the presumption that the best hope of getting the maximum profits return from operations is to invoke the redundancy threat.

Using this weapon, it is alleged, management hopes to force the miners into accepting the company's "arbitrarily dictated tonnage bonuses."

outside the provisions of the working agreement with the company which expired at the end of January, 1972.

"The Union sees the fall in current tonnage output as being attributable to one factor only — the company's insistence that it has the right, as the employer, to dictate contract prices or 'ton 'tonnage bonus' terms to the miners and that such 'contract prices' or incentive bonus' operation are not open to negotiation or discussion with the Union.

"In these circumstances, the Union has endeavoured to arrange a settlement of this 'incentive bonus' or 'contract prices' disagreement between the miners' section committee of our Nenagh branch to agree that, once a date is fixed for negotiations, the miners will immediately resume working at incentive output levels pending the outcome of such negotiation.

"This generous offer on the part of the miners' committee would enable the company to arrange for optimum output. almost immediately and would also have the effect of removing the necessity for the issue of any protective notices, much less the dismissal of any of the present employees. The management has rejected this offer."

"It appears to us, however, that the intransigent attitude of the local mine management is based on the presumption that the best hope of getting the maximum profits, return from the operations at Silvermines is to invoke the threat of redundancy and that, by using this weapon, it can force the miners into accepting the company's arbitrarily dictated, tonnage bonuses.

"Accordingly, the union wishes to make it clear to all concerned that it cannot accept the responsibility for the present intransigence of the local mine management which could result in operations at Silvermines grinding to a halt once again.

"The I.T.G.W.U. sees no good or valid reason why the management at Mogul should be allowed to regard itself as unique among Irish employers generally in the matter of negotiating levels of incentive pay for agreed levels of output."

Earlier, the Mogul manager at Silvermines, Mr. Alan Hopper, said that the workers had been told they would be put on a day-to-day working basis from March 15 because of the slow-down in work, resulting in decreased output.

He said that, in a circular, the men had been told that the average weekly production at the mine was usually about 20,000 or 21,000 tons of ore.

The totals of production for the four weeks of February were: 6,539 tons, 10,795 tons, 10,650 tons and 11,569 tons.

Mr. Hopper said that the company had not been informed in writing of any dispute but had been told recently by officials that the men were not satisfied, following the expiry of their employment agreement on February 1.

Mogul was out of production for several weeks early last summer because of a strike.

During the stoppage, an explosion destroyed an electricity transformer at the mine. Later, one young man died from injuries received from the explosion.

Production at the mines has fallen since February 1 because of a "go'slow" policy by the men.

This action has been taken because, the Union says, management insists that bonus terms for output may not be discussed.

The union maintains, however, that, once a date is fixed for negotiations, its members will resume working immediately at "incentive output levels."

The Union statement said: "What the management terms a "go-slow" or a "cut-back" on production is something completely

Chapter 5.

DEVELOPMENT OR EXPLOITATION ?

"I sit on a man's back choking him and making him carry me, and yet assure myself and others that I am sorry for him ans wish to lighten his load by all possible means, except by getting off his back."

(LEO TOLSTOY).


WHADDYA MEAN IT'S YOUR COUNTRY?? IT'S OUR CONCERT!
TRANSGLOBE MINING CORP.

In certain instances the presence of minerals has provided the crucial impetus to the economic take-off of a country: England based her industrial revolution on the presence of iron and coal, while the mineral wealth of Canada historically has been one of the major factors leading to her present economic position - 3rd in the world.

Other countries with minerals have had different histories. In Indonesia, the Congo or Guyana the existence of mining operations has made little or no difference to the welfare of the ordinary people. Since these and other 'Third World' countries do not own and control wealth generating potential of the resources is lost to them.

In such 'Third World' countries mining operations take place as an ENCLAVE in the economy, that is, there is the least possible integration with the national economy. Consequently minimal employment in other sectors is provided. The resources are 'developed' by external interests which export the wealth produced, thus destroying the possibility of developing the local economy. In countries like Canada and England, by contrast, mineral resources were developed by native interests and an industrial base was successfully built up through reinvesting the profits in processing the output of the mines.

(As we have explained already (see Ch. 4) native capitalist control of the mining industry in Ireland at the present time would not lead to the establishment of a metallurgical industry.)

The mining industry in Ireland constitutes an enclave exactly similar to those existing in the 'Third World'. The mining corporations pay no taxes, minimise their transactions with Irish industry, and export their profits. The profits go to shareholders on the Toronto Stock Exchange (as dividends), or are used to finance corporate expansion in other countries (Spain or Australia, for example) where the mining corporations are endeavouring to repeat the pattern of exploitation that they have perfected in Ireland.

This chapter contrasts the wealth generating potential of a mining-smelting-metallurgical industry integrated into the national economy with the situation as it now is. It highlights the ineluctable contradiction between the interests of the Irish people and the international present policies of 'development monopolies' in the use of our mineral resources.

The table on page gives the gross metal value, present payments within Ireland and profits accruing to the mining/smelting corporations. These figures refer only to the orebodies known at present.

PAYMENTS WITHIN IRELAND:-

Using thepublished accounts of the Northgate Corporation and the figures contained in their booklet, *"Tynagh a case history of Irish mining"*, only 20.9% of the gross metal value enters the Irish economy - be it through wages, payments for goods and services, dividends, royalties or whatever. To put it another way, for every £1. extracted 79.1p leaves Ireland. Tynagh is a representative sample since it is a base metal mine going underground - the typical Irish mine.

In a mine such as Avoca the percentage payments accruing within the economy are higher, while at Navan there will be large economies of scale - the benefit of these economies does not accrue to Irish workers, but to the international mining companies.

GROSS METAL VALUE OF EACH OREBODY AND PAST & FUTURE PAYMENTS OVER THE LIFE OF THE MINES.			
MINE	GROSS METAL VALUE (after smelting)	PAYMENTS WITHIN IRELAND PRESENT AND FUTURE	NET SURPLUS VALUE = PROFIT TO MINING/SMELTING CORPORATIONS.
NAVAN	£1,045,200,000	£219,492,000	£486,617,000
TYNAGH	£ 165,600,000	£ 34,776,000	£ 71,460,000
BENNETSBRIDGE	£ 227,400,000	£ 47,754,000	£145,600,000
BALLYNOE	£ 56,000,000	£ 11,760,000	£ 42,550,000
SILVERMINES	£ 161,365,000	£ 33,886,650	£ 72,898,000
GORTDRUM	£ 26,225,000	£ 5,507,250	£ 6,120,000
AVOCA	£ 38,159,100	£ 8,013,411	£ 10,000,000
KINGSCOURT	£ 50,000,000	£ 10,500,000	£ 13,750,000
TOTAL	£1,769,949,100	£371,689,311	£848,995,000

MULTIPLIER:- If a financial injection takes place a further economic stimulus occurs. When £1 is spent, a further but lesser expenditure is produced by the person who receives the £1. In Ireland this secondary stimulus is less because we import a certain amount of what we buy (consume). The best figure available for the Irish national multiplier is 1.43 *(Bristow and Fall, Bord na Mona Cost-Benefit Study, IPA 1970)* - that is, if £1 is spent it produces a further income of 43p.

The TABLE shows the gross metal value of known mineral deposits in Ireland to be £1,769,949,100, *(One billion, seven hundred and sixty nine million, nine hundred and forty nine thousand and one hundred pounds)*. If the mineral resources of Ireland were developed in the interests of the people the wealth generated by a mining and smelting industry would amount, in money terms, to the gross metal materials value of all the presently known mines and reserves we have considered in this book over the period of extraction less any capital goods imports necessary to the operation of a nationally owned industry.

Such imports which would include the imported equipment for a 250,000 ton-per-year smelter, the necessary imports to establish the Navan mine, the cost of compensating the present mining companies, etc., would be no more than £50 million.

Thus, if the mining and smelting industry were nationalised the primary factor income entering the economy would be the gross value of the mines less £50 million: £1,720,000,000.

If we apply the multiplier (as defined above) to this primary factor income, the secondary effects of the injection are .43 of £1,720,000,000:- £739,600,000.

Therefore the wealth generating potential of the known mineral resources (documented in Ch. 1) is - £1,720,000,000 + £739,600,000 = £2,459,600,000.

When compared with the Irish GNP of £1460 million (1969), this is significant. To put it mildly.

We have yet, however, to discuss the most economically significant stage of all: the processing of the output of the smelter. With regard to zinc, research carried out by some Irish metallurgists has indicated that at the processing stage THE VALUE OF ZINC IS INCREASED BY SOMETHING IN THE REGION OF 800 - 1000%. The implication is staggering: if the output of the (possible) zinc smelter were processed completely in Ireland the output, again in money terms, would be in THE REGION OF £300 million to £350 million PER ANNUM - and this says nothing of the other metals and materials produced by Irish mines.

The capital necessary for the development of a processing industry could be provided amply from the surplus of the extractive and smelting stages.

To achieve the full potential of our mineral resources it is clear that the industry must be developed by an organisation owned by the people with the objective of developing the potential industry so as to eliminate for ever the structural underdevelopment of Ireland - and not to benefit a small minority!

To highlight the enormity of current exploitations the situation outlined above is contrasted with what actually happens at present.

Slightly over £371 million (20.9% of the Gross Metal Value) will represent the total payments within Ireland over the life of the mines.

The secondary or indirect effects of this sum are £159,826,399.

It is unnecessary to comment on this absurd sum. It does not bear comparison with the wealth generating potential as documented.

The total 'benefits' to the economy under the present system are £531,515,000.

Bord na Mona is another industry in Ireland roughly similar in methods of operation THOUGH NOT IN OWNERSHIP AND CONTROL. Of its gross output approximately 91% (contrasted with 20.9%) enters the Irish economy. Moreover, cost-benefit analysis (Bristow and Fall, op. cit.) has shown that the annual net social rate of return of Bord na Mona is 13.8% on capital employed whereas - as is seen by comparing the Gross Metal Value after smelting with the payments within Ireland - THE MINING INDUSTRY CREATES AN ANNUAL SOCIAL LOSS TO THE COUNTRY.

ADDENDUM : THE SMELTER CORPORATION OF IRELAND LTD.

The profiteering Northgate-Tara axis has established the Smelter Corporation of Ireland Ltd (SCIL). Its share capital of £200,000 is restricted to a few companies in the Northgate group. SCIL proposes that up to 45% of thecapital cost of the smelter - £32 million - be provided by the Industrial Development Authority (IDA), and the balance raised by borrowing from financial institutions and repaid over time as SCIL generates a further handsome profit for Northgate. The smelter output would be wholly exported to benefit from tax exemption. The sole benefit to the Irish economy would be 800 jobs, a miserable return for the theft of our mineral resources and a massive grant of up to £14 million.

Total profit generated by a 200,000 ton-per-year smelter would be £236,952,000 (appendix 2a), destined to be exported. Thus a SCIL share now available at 2.5p will over 35 years be worth £21.9p, an appreciation of 87,720%! What a hazardous and risky business, this mining...

CONCLUSION

The capital surplus being generated by the mines at present is creamed off in the form of dividends to shareholders on Wall St. and Toronto or it is used to finance the international corporate expansion of the mining companies.

It is already clear, however, that the international monopolists intend to develop a limited processing industry in this country. The Pfizer Corporation's Bennetsbridge-Dungarvan-Roofchrome complex is a model example of the exploitation which can take place in a vertically integrated industry.

Already there is evidence that the companies have begun to take definite steps to establish or take over metal-processing firms. As the metal trades start to suffer the effects of the free trade policies of the ruling establishment, our friendly monopolists will find that the industry is ripe for take-over. (see Committee on Industrial Progress, survey of Metal Trades Industry, 30th July, 1970).

This is not a move to integrate their activities however belatedly into the national economy. It is a move to expand the enclave.

Tara Exploration and Development Company are making use of this latest tendency in trying to bribe the people of Navan. Tara has intimated that not only will there be a mine at Navan but there is also the possibility of further industry being located there. From out of the Murder Machine, Secondary branch, we hear it echo: Timeo Danaos...

As the enclave grows, so does the exploitation. The resources are plundered, and the possibility of real development recedes.

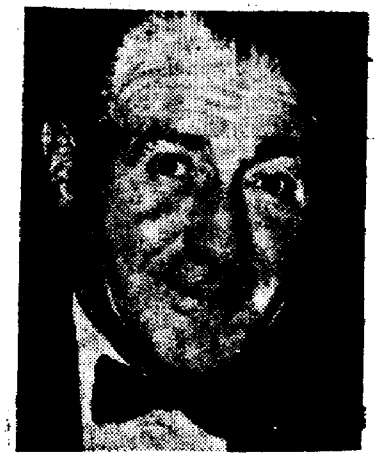
Gilroy takes bigger share in O'Dwyer Steel

MR. MATT GILROY, one of the major owners of the Tara/Northgate complex of Canadian mining firms operating in Ireland, has enlarged his holding in the O'Dwyer Steel, of Co. Tipperary, and becomes vice-chairman of the firm.

This is one of a number of changes designed to make the steel erection firm expand into more industrial buildings from its present operations, which are 75% in agricultural buildings.

The firm, whose sales last year were just under £500,000 employs 120-140 people and proposes to raise this number to 160-175 in a year.

Among steel frames for industrial buildings erected have been the Wavin Pipes extension at Balbriggan and the Murray Kitchens plant at Youghal.



GENEROUS DONATIONS FROM TARA MINES LTD.

Tara Mines Ltd. have donated £500 to St. Mary's Community Centre, Navan, and the money will be invested in the provision of a roller-skating rink in the hall. Mr. Murrogh O'Brien, general manager and exectuive vice-president of Tara Exploration and Development Co. Ltd. and a director of Tara Mines, Presented the cheque to Rev. A. Farrell, C.C. at a dance in the centre on Saturday night, prior to which invited guests attended a sherry reception on the premises.

Mr. O'Brien said he and his party were highly impressed with the magnificent new centre and were happy to contribute towards the cost of extending the amenities there. He wished Fr. Farrell and his committee every success in the future and added that the centre was a credit to the town.

Thanking Tara Mines for their generosity, Fr. Farrell said it was hoped to have the skating rink in operation at Easter. He revealed that the construction of a gymnasium in the centre was also planned for the near future. Associated with Mr. O'Brien at the presentation ceremony were Messrs. W.G. Dallas and Richard Down, conservation manager and general manager, respectively, of Tara Mines.

The mining company will make a similar gift to Navan O'Mahonys G.F.C. in aid of their social centre at a reception in the local Club-house Hotel tonight (Thurs) 8pm.

DAIL EIREANN

BAILE ÁTHA CLIATH
(Dublin)

[redacted] 1955.

[redacted]

Dear [redacted]

Your letter of [redacted] received. I should make it clear that I am not objecting to the tax concession proposed for the Avoca Project. My only comment in this connection is that the availability of a concession of this magnitude should have been known to all parties interested in the deposits.

I still think that an Irish concern (statutory or private) assisted by competent international consulting engineers could make as good a job of Avoca as the Canadians. All the technical knowledge and experience which seems to me to be required relates to the planning of the mine development and the plant installation. Once production has been organised, the running of the show will be largely routine

I still think you are grossly underestimating the profits in this business for the Canadians. The 30 cents per lb. "break-even" estimate is their own. It may prove too low, as you say, but it must stand for the present. One million tons of ore averaging 1.2% copper equals 12,000 tons of copper per year. The present price, according to last week's 'Economist', is £396 On the basis of breaking even at £250 (30 cents per lb.) the profit will be £146 per ton or £1,750,000 per year, assuming that the yield from zinc, lead and sulphur was taken into account in determining the "break-even" point (if not the profit. will be considerably more). All the indications are that the copper price will hold. If so, at the end of four years, the Canadians will have recovered their investment, plus £5 million tax-free profits.

The point is that these profits must be made by anybody operating on the 3,000 tons per day scale. It could have been Mianrai Teoranta.

Yours sincerely,

Seán F. Lemass

OIFIG AN AIRE TIONSCAIL AGUS TRÁCHTÁLA
(OFFICE OF THE MINISTER FOR INDUSTRY AND COMMERCE)
BAILE ÁTHA CLIATH
(DUBLIN)

[redacted] 1957.

Dear [redacted]

Your letter of [redacted] received.

I have been made aware of the difficulties of Irish Copper Mines Ltd. and have met the representatives of the American Metal Company who have been in this country. From our viewpoint I do not see that it makes any difference whether Irish Copper Mines Ltd. is controlled by American Metal or by the original promoters. Indeed, it would seem to me that there are advantages in the association of American Metal with the undertaking.

I have not yet had the opportunity of ascertaining the activities of the other Canadian groups here or of considering the future of Mianrai Teoranta.

Best wishes.

Yours sincerely,

Sean F. Lemass

Chapter 6

THE ALTERNATIVES.

"...A condition governing the existing reliefs from taxation in favour of profits from the mining of certain non-embedded minerals, is that the trade of working the mine must be commenced within a period of twenty years from 6th April 1956. I propose to extend this period by a further 10 years so that reliefs will be available in respect of mining operations commenced before April 1986...

... I believe that Ireland now offers a very favourable sphere of activity to mining organisations and I hope that they will not be slow to take advantage of this..."

(MR. CHARLES HAUGHEY? BUDGET SPEECH, 12 APRIL 1967)

"...*What is a free nation?* A free nation is one which possesses absolute control over all its internal resources and powers, and which has no restriction upon its intercourse with all other nations similarly circumstanced...

...How would you like to live in a house if the keys of all the doors of that house were in the pockets of a rival of yours who had often robbed you in the past? Would you be satisfied if he told you that he and you were going to be free for ever more, but insisted upon you signing an agreement to leave him control of all your doors, and custody of all your keys?..."

(JAMES CONNOLLY, "WHAT IS A FREE NATION" Feb 12th 1916)


NOT AT ALL! NOT AT ALL! AND AS FOR THE FAMILY —THEY'RE SOUND ASLEEP
IRISH GOVT.
INTERNATIONAL MINING CORPO-RATION
doll

ALTERNATIVES

The discovery of hitherto unbelievable mineral resources in Ireland, which could be as significant to Ireland as coal and iron ore discoveries were to England in the 18th century, has prompted certain reformist demands. These demands are designed, not to facilitate the emergence of a rational production system based on democratic ownership but to maintain an archaic system of production by which 5% of the population own 71% of the wealth. In order to draw a clear picture of the limitations to the various 'solutions' suggested in response to the RSG's demand for nationalisation without compensation, the various 'alternatives' need to be analysed and quantified

BACKGROUND TO THE MINING / METALLURGICAL INDUSTRY

There are three basic stages in the transformation of a base-metal from an ore deposit to a finished product. They are 1) Extraction, 2) Smelting, 3) Processing. Together they form the Mining / Metallurgical Industry.

As has been shown, stage 1 is the least sophisticated and least capital intensive providing, as it does, immense profit. Stage 2, smelting, sees the value of the product increased by approximately 100% - again a highly profitable stage. At the third stage the metal is processed into finished goods. This processing is the crucial and most economically significant stage since it is estimated that the value added here is in the region of 800 - 1000 per cent.

The potential wealth generated after the second stage would be £1,720,000,000 (as quantified in Ch. 5). Given an Irish national multiplier of .43 the secondary effects would be £739½ million, giving a total injection to the economy of £2,459½ million *(if the industry was nationalised without compensation and developed in the interests of the people)*. When one remembers that Ireland's GNP in 1969 was £1460 million, the vast dimensions of the loss of wealth to Ireland if the present ownership structure of the industry remains unchanged begin to become apparent: a loss due to the structurally underdeveloped nature of the economic infrastructure and the socio-political superstructure (see Ch. 7).

In the EEC White Paper, making glowing projections of the 50,000 new jobs and the 5% growth rate expected over the next ten years, the Government fails to spell out the fact that in the EEC Ireland would not be allowed to nationalise its mineral wealth. Thus, Ireland would have to put up with the ownership structure of the mining industry as it now stands.

Any solution put forward must be analysed in the context of what happens to the wealth that is generated by the mining / metallurgical industry.

With this in mind let us look at the various solutions proposed. What are they? What of their respective economic significances?

The alternatives which have been suggested, which we quantify, are:

(1) Increased Royalties.
(2) Decrease of the Tax-free Period.
(3) Full Corporate Tax on Mining.
(4) Development by Irish Private Enterprise.
(5) Nationalisation with Compensation.
(6) Nationalisation without Compensation.

We shall deal with them one by one.

(1) Increased Royalties.

The schedule of royalty payments which do not exceed 9% of operating profits is reproduced in Appendix 3. The total paid in royalties to the Government in the period 1957-72 was £1,943,050. Given that royalty payments are only made on profits generated at the extraction stage, the annual return from a doubling of the royalties *(given also the mineral deposits with ore proven, Feb. 1972)* would be £1,800,000. This would hardly cover the current cost of An Foras Taluntais - the Agricultural Institute. An agreement to double the royalties has been negotiated between the Dublin Government and the mining companies, but it has yet to be announced. Profits from the smelting and processing stages *(even if carried out in Ireland)* would be tax-free until 1990 under present economic 'policies'.

(2) Decrease of the Tax-free Period

Essentially a similar result to that of increasing royalties - the main outcome being that the mining companies would accelerate their exploitation of mineral reserves by mining at a faster rate and utilising larger concentrators so that Ireland's mineral wealth would be depleted at an even more rapid rate. It is to be noted that the advocates of this 'solution' make a point to maintain that only new mines would be thus affected.

(3) Full Corporate Taxation on Mining

Seldom advocated, but may become more attractive to those of reformist mentality as demands for full nationalisation without compensation continue to grow. The effect of this measure is essentially similar to the preceding two - but with a relatively greater percentage of the gross metal value entering the Irish economy.

With a full 52% tax imposed on the gross profits generated at the extracting and smelting stages *(assuming that all the ore is smelted in Ireland, which is unlikely without Government legislation forbidding the export of raw ore)* the situation in the Mining Industry would allow for the structure of ownership and - therefore control - to remain unaltered. £400,000,000 would go into the pocket of the multi-national corporations and would not be utilised for the development of a spin-off metallurgical industry.

Over a 35 year period the annual income of tax forthcoming would be approximately £11.2 millions. In the year 1970/1971 the Industrial Development Authority (IDA) allocat £22 million for new industry grants - 75% of which went to foreign-owned industry. The entire return from a fully ta mining industry would not even cover what is being granted other multi-national corporations elsewhere in the economy.

(4) Development by Irish Private Enterprise

There is no such thing as national capitalism - inhere ly it is international. For development to proceed under capitalism new markets must be found when domestic markets have been saturated and when overseas markets have been sat ated capital must flow to further expand these markets by t development of new products.

Thus, there is a necessity in the capitalist system of development for the free movement of the factors of producti - labour and capital. Such a situation applies in Ireland and will be even more the case if Ireland joins the EEC.

As is documented in Chapter 7 of this pamphlet, 'Native Capitalism' was tried in Ireland between 1932 and 1955. It failed.

Within the context of capitalist production the alterna ive open to the Government was to internationalise the owner ship of Ireland's wealth. This was begun in earnest in 19

The talk of 'native capitalism' taking over effective control of the mine, even if it were desirable, fails to re- cognise the incredible weakness of native Irish capitalism i the 1970's. A case in point which should be watched with interest is the Tara/Bula affair. Even if Bula wins it wou not be surprising to see Bula selling out to Tara.

As for the profits - what difference if the robber barons are Canadian, American, British or Gombeen Irish? The wealth which has the potential to promote economic take-off in this country would find its way into a few hands, and given the structurally underdeveloped nature of the Irish economy, on to Wall St. and London.

(5) Nationalisation with Compensation

Nationalisation with compensation defeats the very purpose of nationalisation - namely to use the wealth generating potential of the mining industry to initiate an Industrial take-off.

Under a system of nationalisation with compensation the Government through a semi-state company would operate the mines having compensated the mining companies for all existing equipment and investment AND FOR THE PRODUCTION VALUE OF THE ORES STILL REMAINING IN THE GROUND.

In the case of Navan this would mean that Tara would receive a huge sum of money for an orebody WHICH WAS NOT THEIRS TO BEGIN WITH.

(6) Nationalisation without Compensation

This is the only alternative to the present situation that allows for the wealth generating potential of Ireland's mineral resources to go in its entirety to the Irish people (see Chapter 5 for a detailed quantification of this wealth generating capacity).

RSG's demand is simple and clear - that the minerals of Ireland must revert to their rightful owners - the people of Ireland. No compensation would be payable to the mining companies for the ore reserves because they were not theirs to begin with. The only compensation payable to the mining companies would be for such capital investments (concentrators, mining shafts, etc.) as have not already been recovered in profits.

RSG emphasises that this would only be a beginning - the minimum necessary to allow for the development of a state mining/metallurgical industry.

A state company should be set up forthwith to prepare for the take-over of the mines and the development of a smelter.

The People's
DEMAND

NATIONALIZATION without COMPENSATION.

NOW YOU KNOW ABOUT MINING -

WHAT ABOUT

- THE 811 INDIVIDUALS IN THE 26 COUNTIES WHO, TOGETHER, ARE WORTH £216,000,000?
- THE 5% OF THE POPULATION IN THE SOUTH WHO OWN 71% OF ALL THE WEALTH?
- THE 340 INDIVIDUALS IN THE 6 COUNTIES WHO, TOGETHER, ARE WORTH £54,000,000?
- THE 2,500 FOREIGN CORPORATIONS WHICH NOW DOMINATE EVERY GROWTH SECTOR OF BOTH ECONOMIES?
- THE TOTAL INABILITY OF THE DUBLIN AND BELFAST GOVERNMENTS TO DO ANYTHING ABOUT THE SITUATION EPITOMISED BY THE SELL-OUT OF SHANNON TO PAN-AMERICAN INTERESTS?

?

NAVAN DRILL HOLES

Hole NO	LOCATION CO-ORDINATES SOUTH	WEST	INTERSECTION FROM - TO	LENGTH OF INTERSECTION	COMBINED ZINC-LEAD PER CENT
1	17	8	295-333 ft	40 ft	8.65
2	16	8	212-224 ft	12 ft	8.58
3	15	8	38- 43 ft	5 ft	18.60
4	16	9	11-134 ft	123ft	13.16
5	17	9	12 - 127ft	115ft	25.70
			232-265 ft	33 ft	8.24
	6		330-369 ft	39 ft	6.99
6	17	10	14 -314 ft	300ft	5.05
7	18	9	50-175 ft	125ft	23.07
			283-323 ft	40 ft	5.35
			363-388 ft	25 ft	5.16
8	15	9	63-093 ft	30 ft	4.87
			93-183 ft	90 ft	10.80
9	18	8	326-356 ft	30 ft	7.04
10	15	10	30-238 ft	208ft	3.11
11	18½	9	314-348 ft	34 ft	7.62
12	17	18	49-304 ft	255 ft	9.09
13	14	9	12-065 ft	53 ft	7.84
14	16	11	79-367 ft	287 ft	12.95
15	14	10	21-246 ft	225 ft	7.09
16	19	9	346-406 ft	60 ft	6.84
17	15	11	77-324 ft	247 ft	8.34
18	19½	9	322-362 ft	40 ft	5.27
19	13	10	15-210 ft	195 ft	10.27
20	14	11	100-265 ft	165 ft	4.98
21	13	11	36-221 ft	185 ft	4.74
22	17½	10	74-344 ft	270 ft	17.27
23	12	10	23-170 ft	147 ft	7. 53
24	12	11	85-240 ft	155 ft	8.51
25	18	10	72-227 ft	155 ft	15.71
			423-518 ft	95 ft	8.07
26	17	11	100-374 ft	275 ft	18.56
27	15	12	163-410 ft	247 ft	6.51
28	13	9	12-077 ft	65 ft	6.11
29	19	8	384-409 ft	25 ft	11.95

HOLE NO	LOCATION CO-ORDINATES SOUTH	WEST	INTERSECTION FROM - TO	LENGTH OF INTERSECTION	COMBINED ZINC-LEAD PER CENT
30	16	12	165-415 ft	250 ft	11.24
31	14	12	149-329 ft	180 ft	6.26
32	12	9	18-134 ft	116 ft	16.86
33	11	11	107-187 ft	80 ft	10.50
34	13	12	181-286 ft	105 ft	8.01
35	10	11	72-177 ft	105 ft	4.20
36	11	9	19-103 ft	84 ft	7.16
37	17	12	175-415 ft	240 ft	16.11
38	12	12	134-254 ft	120 ft	8.20
39	9	11	117-162 ft	45 ft	3.13
40	10	9	13-083 ft	70 ft	7.02
41	8	9	52-072 ft	20 ft	5.48
42	10	10	25-102 ft	77 ft	3.05
43	11	12	149-214 ft	65 ft	8.80
44	16	13	240-525 ft	285 ft	11.54
45	10	12	180-220 ft	40 ft	9.07
46	9	10	67-127 ft	60 ft	2.53
47	12	17	169-309 ft	140 ft	10.71
48	15	13	244-439 ft	195 ft	5.72
49	18	12	239-424 ft	185 ft	17.16
50	11	13	185-290 ft	105 ft	7.63
51	14	13	255-400 ft	145 ft	4.86
52	12	14	219-369 ft	150 ft	9.33
53	17½	13	283-473 ft	190 ft	19.37
54	10	13	200-255 ft	55 ft	8.23
55	13	13	237-332 ft	95 ft	5.05
56	12	15	281-396 ft	115 ft	11.95
57	9	13	190-245 ft	55 ft	6.51
58	13	14	277-367 ft	90 ft	9.64
59	12	16	272-387 ft	115 ft	11.14
60	19	13	261-479 ft	218 ft	14.15
61	14	14	337-397 ft	60 ft	3.00
62			263-378 ft	115 ft	11.34
63	13	15	261-396 ft	135 ft	10.25
64	15½	14	303-513 ft	210 ft	6.14

NAVAN cont.

HOLE NO	LOCATION CO-ORDINATES SOUTH	WEST	INTERSECTION FROM - TO	LENGTH OF INTERSECTION	COMBINED ZINC-LEAD PER CENT
65	13	17	285-405 ft	120 ft	8.43
66	19	12	230-382 ft	152 ft	14.99
67	13½	16	285-412 ft	127 ft	7.53
68	12	18	277-397 ft	120 ft	8.63
69	18½	11	143-320 ft	177 ft	23.52
70	11	18	275-360 ft	85 ft	12.68
71	11	17	264-339 ft	75 ft	10.96
72	15	14	331-542 FT	211 FT	17.8
73	19	10	128-205 FT	77 FT	9.2
74	12	19	310-410 FT	100 FT	11.5
75	11	19	295-380 FT	85 FT	12.2
76	12	20	315-435 FT	120 FT	9.1
77	11	20	255-415 FT	160 FT	6.8
78	20	12	330-435 FT	105 FT	16.8
79	19	15	378-588 FT	210 FT	22.3
80	10	20	330-435 FT	105 FT	15.1
81	11½	21	327-442 FT	115 FT	8.8
82	9	20	350-400 FT	50 FT	11.4
83	11	22	397-462 FT	65 FT	8.6
84	20	11	243-293 FT	50 FT	17.7
85	10	21	375-440 FT	65 FT	13.4
86	18	14	337-527 FT	190 FT	13.9
87	9	21	375-440 FT	65 FT	14.6
88	10	22	376-436 FT	60 FT	9.2
89	20	13	339-475 FT	136 FT	12.2
90	9	22	385-475 FT	90 FT	10.7
91	17	14	313-561 FT	248 FT	12.1
92	11	23	431-496 FT	65 FT	11.3
93	10	19	315-390 FT	75 Ft	10.7
94	21	13	391-499 FT	108 FT	20.7
95	10	23	371-461 FT	90 FT	7.0
96	21	14	419-539 FT	120 FT	10.1
97	18	15	386-594 FT	208 FT	17.5
98	9	10	310-390 FT	80 FT	7.7
99	10	18	270-370 FT	100 FT	8.7
100	9	23	380-485 FT	105 FT	7.9
101	19	16	390-625 FT	235 FT	24.0
102	9	18	300-355 FT	55 FT	19.3
103	21	15	428-590 FT	162 FT	7.4
104	8	23	318-468 FT	150 FT	5.5
105	9	17	275-355 FT	80 FT	9.9
106	20	14	354-532 FT	178 FT	9.1
107	8	22	385-455 FT	70 FT	4.8
108	10	17	265-315 FT	50 FT	7.2
109	11	16	260-330 FT	70 FT	11.3
110	22	15	465-600 FT	135 FT	11.6
111	8	21	362-423 FT	61 FT	8.4
112	20	15	391-604 FT	207 FT X	12.7
113	19	17	415-670 FT	255 FT	19.7
114	11	15	230-305 FT	75 FT	10.9
115	8	20	338-408 FT	70 FT	7.1
116	-	-	-	-	-
117	20	16	388-593 FT	200 FT X	18.5
118	7	13	184-209 FT	25 FT	4.8
119	21	17	445-630 FT	185 FT	12.3
120	-	-	-	-	-
121	18	16	400-645 FT	245 FT	11.5
122	8	14	198-233 FT	35 FT	5.6
123	-	-	-	-	-
124	10	14	178-278 FT	100 FT	7.6
125	-	-	-	-	-
126	21	19	500-780 FT	280 FT	14.5
127	14½	15	353-423 FT	70 FT	6.7
128	17	15	360-620 FT	260 FT	11.1
129	20	17	391-646 FT	249 FT X	20.3
132	10	16	220-305 FT	85 FT	7.8

HOLE NO	LOCATION CO-ORDINATES SOUTH	WEST	INTERSECTION FROM - TO	LENGTH OF INTERSECTION	COMBINED ZINC-LEAD PER CENT
33	19	18	405-720 FT	315 FT	10.5
35	17	17	320-675 FT	305 FT	9.2
36	9	15	234-299 FT	65 FT	8.2
38	20	18	438-698 FT	260 FT	20.9
40	8	16	270-315 FT	45 FT	12.7
41	20	19	433-738 FT	305 FT	11.5
43	16	15	387-568 FT	181 FT	12.1
144	8	18	289-354 ft	65 ft	16.3
145	5	15	35- 75 ft	40 ft	11.4
146	22	14	466-586 ft	120 ft	10.4
148	6	14	112-137 ft	25 ft	10.9
150	16	10	433-600 ft	176 ft	11.5
152	7	15	222-257 ft	25 ft	6.5
149	19	19	435-805 ft	370 ft	3.0
153	21	16	465-615 ft	150 ft	10.7
154	7	17	278-303 ft	25 ft	10.2
155	15	16	330-355 ft	25 ft	3.6
156	7	19	320-350 ft	30 ft	10.6
157	22	13	479-504 ft	25 ft	5.8
158	18	18	400-760 ft	360 ft	11.2
159	15	17	355-445 ft	90 ft	8.7
160	7	21	369-420 ft	50 ft	4.3
161	21	18	423-709 ft	281 ft	21.9
162	7	23	295-470 ft	175 ft	6.3
164	18	17	378-699 ft	321 ft	11.0
165	14	18	287-437 ft	150 ft	9.8
166	3	13	82-132 ft	50 ft	3.9
167	21	20	354-794 ft	240 ft	10.2
168	4	12	67-122 ft	55 ft	6.1
170	13½	19	350-445 ft	95 ft	18.7
171	6	12	117-150 ft	33 ft	1.5
173	17	16	465-648 ft	183 ft	8.7
174	8	12	143-183 ft	40 ft	3.5
175	4	14	45-160 ft	115 ft	4.6
177	16	18	369-507 ft	138 ft	8.3
178	21	21	494-874 ft	380 ft	9.5
179	5	15	106-141 ft	35 ft	7.5
180	22	22	555-975 ft	410 ft	8.7
181	20	22	517-872 ft	355 ft	6.3
182	6	16	253-261 ft	8 ft	8.3
183	6	18	396-316 ft	20 ft	5.1
185	19	21	495-815 ft	311 ft	9.0
186	17	19	384-659 ft	255 ft	6.2
187	23	23	570-953 ft	375 ft	6.9
188	6	20	331-366 ft	35 ft	88.3
190	6	22	365-415 ft	50 ft	7.2
191	21	23	567-832 ft	265 ft	7.7
194	16	20	376-576 ft	200 ft	9.0

APPENDIX 2(A)

The cost structure of a 200,000 ton Zinc Smelter over a period of 35 years

YEAR OF PRODUCTION

Year of Operation[1]	0	1	2	3	4-35	0-35	TOTALS
Revenue:[2]							
Sales of Zn. in tons			50,000	166,500	6,200,000	6,416,500	
Revenue derived from Zn. sales (£)			6,750,000	22,477,500	837,000,000	866,227,500	866,227,500
Costs:							
Capital costs:(£m's)[3]							
Plant & Machinery		13.08	8.76				
Buildings	6.4	1.40					
Site Preparation	1.56						
Cost of Land	0.80					£32,000,000	
Operational Costs: (£m's)							
Labour[4]			0.304	1.01	37,603,000	£38,917,000	
Electricity[5]			0.50	1.70	62,124,000	£64,324,000	
Maintenance[6]			0.20	0.65	24,800,000	£25,650,000	
Deliveries[7]							£128,891,000
Cost of Raw Materials[8]			3,656,000	10,981,000	457,747,000	468,384,000	£468,384,000
PROFIT generated at Smelter stage							£236,952,000

Notes on Appendix 2A

(1) 4 years of partial production
31 years of full production.

(2) Calculated at £100 per ton for lead, £135 per ton for zinc.

(3) Capital Cost:

(a) Calculated at a cost of £160 per annual ton capacity.

(b) Plant and machinery/buildings/ preparation of site calculated in a ratio of 70 : 25 : 5.

(4) Labour Costs:

(a) 'Operating' man hours per year at 6.1 man hours per ton of zinc produced 1,220,000 man hours /year.

(b) 'Maintenance' man hours per year at 1.1 man hours per ton of zinc produced 220,000 man hours/year.

(c) 'Administrative' man hours per year at 1.0 man hour per ton of zinc produced 200,000.

(d) The average wage is calculated at 0.75p per hour. A working week is 40 hours.

(5) Electricity Consumption:

(a) Calculated at a consumption rate of 4,100 Killowatt hours (K.W.H.) per ton of zinc produced.

(b) Price per K.W.H. - £0.025p.

(6) Maintenance Cost:

Calculated to average 2.5% of initial cost.

(7) Deliveries:

This obviously depends on the destination. In the calculations of Appendix 2A deliveries are not included. Allowance is made, however, by the projected I.D.A. capital grant.

(8) Cost of Raw Material:

Concentrates, with 56% metal content, calculaed to cost £41 per ton.

calculated to cost £41 per ton.

APPENDIX 2 B

Zinc processes: comparison of basic charges

	Horizontal-retort process (20 000 tons/year)	Vertical-retort process (40 000 tons/year)	Electrolytic process (65 000 tons/year) Grade I and II Zinc	Blast-furnace process (85 000 tons/year) Zinc Grade IV (33 000 tons/year Lead)
Operating man hours/ton zinc	28	8·6	5·4–6·8	4·0
Maintenance man hours/ton zinc	4·5	3·2	1·1	1·65
Maintenance materials expressed as % of capital cost	4·0	2·8	2–3	2·5–3·5
Energy/ton zinc:				
Coke, tons		Coke breeze 0·32		Dry coke 1·07
Coal, tons	Anthracite 0·56–0·63 Producer coal 1·75–1·90	Bituminous coal 0·90		
Electricity, kWh	60	230	3800–4400	480
Fuel oil or gas, therms	—	165	7·0	30
Water, gal. × 10^3	—	—	1·0	3·5
Steam, tons/ton zinc	—	2·5 (credit)	5·0	0·16
Reagents, lb/ton zinc		Clay 18	Crude manganese dioxide 32·5 Gum arabic 0·06 Cresylic acid 0·04 Sodium silicate 0·9 Zinc dust 90·0	Sodium 0·5 Zinc ammonium chloride 12·5 Oxygen 50 (ft^3)
Miscellaneous process stores and supplies/ton zinc		Sundry £0.4	lb Copper sulphate 2·4 Arsenious oxide 1·5 Ammonium chloride 2·1 Strontium carbonate 0·056 If Jarosite precipitation is used tons Sulphuric acid (100%) 0·1 Ammonia 0·007	tons Lead concentrates 47 000 Sundry £0.4
Direct zinc recovery from standard concentrates, %	86–88	86–90	Normal 85–90 If Jarosite precipitation is used 92–95	91–93

All ton weights above are 2240 lb

Notes on Appendix 2A

(1) 4 years of partial production
31 years of full production.

(2) Calculated at £100 per ton for lead, £135 per ton for zinc.

(3) Capital Cost:

(a) Calculated at a cost of £160 per annual ton capacity.

(b) Plant and machinery/buildings/ preparation of site calculated in a ratio of 70 : 25 : 5.

(4) Labour Costs:

(a) 'Operating' man hours per year at 6.1 man hours per ton of zinc produced 1,220,000 man hours /year.

(b) 'Maintenance' man hours per year at 1.1 man hours per ton of zinc produced 220,000 man hours/year.

(c) 'Administrative' man hours per year at 1.0 man hour per ton of zinc produced 200,000.

(d) The average wage is calculated at 0.75p per hour. A working week is 40 hours.

(5) Electricity Consumption:

(a) Calculated at a consumption rate of 4,100 Killowatt hours (K.W.H.) per ton of zinc produced.

(b) Price per K.W.H. - £0.025p.

(6) Maintenance Cost:

Calculated to average 2.5% of initial cost.

(7) Deliveries:

This obviously depends on the destination. In the calculations of Appendix 2A deliveries are not included. Allowance is made, however, by the projected I.D.A. capital grant.

(8) Cost of Raw Material:

Concentrates, with 56% metal content, calculated to cost £41 per ton.

calculated to cost £41 per ton.

APPENDIX 2 B

Zinc processes: comparison of basic charges

	Horizontal-retort process (20 000 tons/year)	Vertical-retort process (40 000 tons/year)	Electrolytic process (65 000 tons/year) Grade I and II Zinc	Blast-furnace process (85 000 tons/year) Zinc Grade IV (33 000 tons/year Lead)
Operating man hours/ton zinc	28	8·6	5·4–6·8	4·0
Maintenance man hours/ton zinc	4·5	3·2	1·1	1·65
Maintenance materials expressed as % of capital cost	4·0	2·8	2–3	2·5–3·5
Energy/ton zinc:				
Coke, tons		Coke breeze 0·32		Dry coke 1·07
Coal, tons	Anthracite 0·56–0·63 Producer coal 1·75–1·90	Bituminous coal 0·90		
Electricity, kWh	60	230	3800–4400	480
Fuel oil or gas, therms	—	165	7·0	30
Water, gal. × 10^3	—	—	1·0	3·5
Steam, tons/ton zinc	—	2·5 (credit)	5·0	0·16
Reagents, lb/ton zinc		Clay 18	Crude manganese dioxide 32·5 Gum arabic 0·06 Cresylic acid 0·04 Sodium silicate 0·9 Zinc dust 90·0	Sodium 0·5 Zinc ammonium chloride 12·5 Oxygen 50 (ft^3)
Miscellaneous process stores and supplies/ton zinc		Sundry £0.4	lb Copper sulphate 2·4 Arsenious oxide 1·5 Ammonium chloride 2·1 Strontium carbonate 0·056 If Jarosite precipitation is used tons Sulphuric acid (100%) 0·1 Ammonia 0·007	tons Lead concentrates 47 000 Sundry £0.4
Direct zinc recovery from standard concentrates, %	86–88	86–90	Normal 85–90 If Jarosite precipitation is used 92–95	91–93

All ton weights above are 2240 lb

APPENDIX 3

Mining Royalties:

The following sums were taken from the Government publication, *'Estimation for Public Services'* (1957-1972) which is published annually.

Two definitions were used, one covering the period 1957-1963 and the other 1964 on. There is no evidence of any royalties having been received prior to that date. This is probably due to new legislation having been introduced.

Year		£
1958-59	Fees under the Mineral Development Act.	15,000
1959-60	dit. dit. dit.	11,000
1960-61	dit. dit. dit.	15,000
1961-62	dit. dit. dit.	16,000
1962-63	dit. dit. dit.	13,000

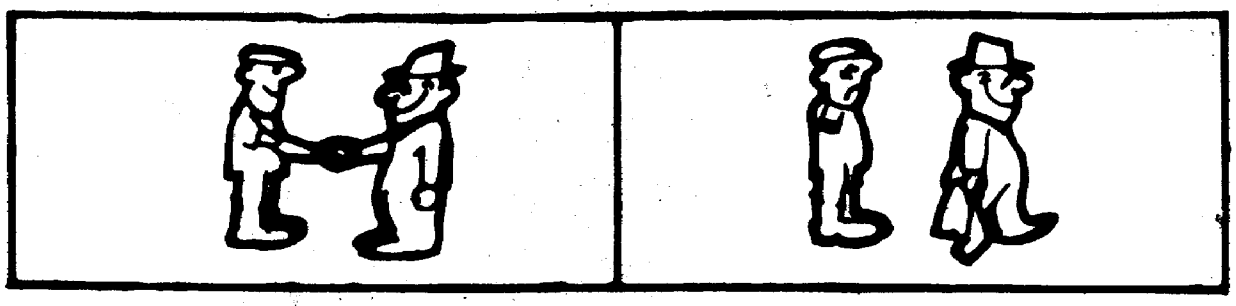
Royalty rates which are based on operating profits are written into the leasing agreements. The following rates are typical:

RATE	PROFITS
4%	up to £350,000
5%	from £350,000 up to £7,000,000
6%	from £700,000 up to £1,050,000
7%	from £1,050,000 up to £1,400,000
8%	from £1,400,000 up to £1,750,000
9%	exceeding £1,750,000.....

Although these figures are typical variations in the rates do occur.

Fees under the Minerals Development Act, 1940 and the Petroleum and other Minerals Development Act, 1960.

1963-64	dit.	dit.	dit.	17,000
1964-65	dit.	dit.	dit.	22,000
1965-66	dit.	dit.	dit.	21,000
1966-67	dit.	dit.	dit.	25,000
1967-68	dit.	dit.	dit.	150,050
1968-69	dit.	dit.	dit.	229,000
1969-70	dit.	dit.	dit.	416,000
1970-71	dit.	dit.	dit.	477,000
1971-72	dit.	dit.	dit.	516,000
1958-72			TOTAL	£1,943,050



CHILE TOOK IT BACK –

SO WILL IRELAND!

THE MINIMUM NECESSARY TO

STOP THE ROBBERY OF IRELAND'S WEALTH

NATIONALIZATION WITHOUT COMPENSATION.

Title: Navan and Irish Mining
Organisation: Resources Study Group
Date: 1972 c.

Downloaded from the Irish Left Archive.
Visit www.leftarchive.ie

The Irish Left Archive is provided as a non-commercial historical resource, open to all, and has reproduced this document as an accessible digital reference. Copyright remains with its original authors. If used on other sites, we would appreciate a link back and reference to the Irish Left Archive, in addition to the original creators. For re-publication, commercial, or other uses, please contact the original owners. If documents provided to the Irish Left Archive have been created for or added to other online archives, please inform us so sources can be credited.