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INFORMATION REPORT

COUNTRY Rumania

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25X1 SUBJECT Notes on Industries in Rumania

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Attached herewith for your information and retention is a photostatic copy of Rumanian industries as of September 1948.

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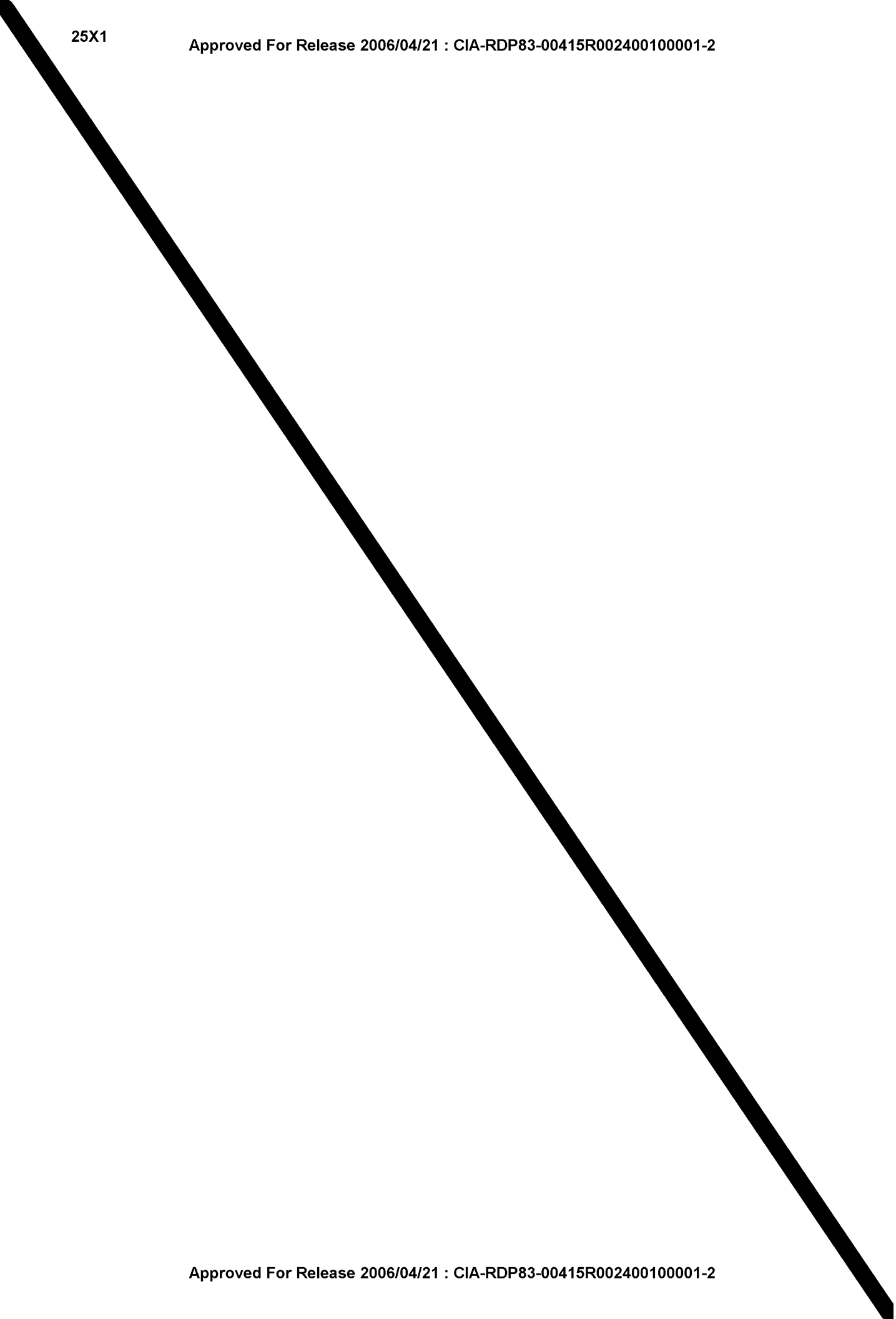

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II. INTRODUCTION

1. Greater Roumania before the war was primarily an agricultural country. With its fertile soil, reserves of mineral resources and considerable water-power, Roumania could have been one of the richest countries in Europe. However, only a small part of her resources was exploited.

2. Even after the acquisition of Transylvania Bukovina and Bessarabia, about three-fifths of the area was arable land and four-fifths of the population were employed in agriculture, forestry and fishing. Industry, employing only one-twentieth of the population, was responsible for half of the production expressed in value. Approximately two-thirds of all income from exports was derived from industrial products - chiefly oil, of which Roumania was the foremost European exporter.

3. At the end of 1938, there were 3,767 industrial establishments in Roumania. These had an aggregate capital of Lei 50,100 million, and employed about 289,000 workers. Production in 1938 was valued at Lei 69,200 million. Production, capital and numbers employed in the various industries were as follows:-

Industrial Statistics as at December 31st, 1938

25X1

Industry	No. of Concerns	Capital Million Lei	No. employed	Raw materials consumed Million Lei	Value of output Million Lei
Chemicals	397	12,325	28,298	7,619	14,155
Food	974	10,773	38,376	8,416	15,577
Textiles	640	8,230	74,077	9,088	14,692
Metals	366	8,466	51,321	5,531	11,363
Timber	713	2,274	43,326	1,960	3,584
Leather	158	1,025	13,366	2,340	3,438
Paper	157	3,577	15,222	1,249	3,089
Building	258	2,093	15,104	252	1,860
Electricity Supply	31	200	2,684	329	675
Glass	39	561	5,691	133	527
Ceramics	34	143	1,651	27	149
TOTAL	3,767	50,067	289,117	36,944	69,209

4. During the war Roumania lost 800,000 able-bodied men out of a population of 15 to 16 million. The oil industry suffered comparatively little permanent damage.

5. After the war, Transylvania, containing rich mineral resources, was returned to Roumania. It had been ceded to Hungary in 1941 by the so-called "Vienna Diktat". Bessarabia and the Northern part of Bukovina were, however, lost to the U.S.S.R. and Russia imposed heavy reparation payments upon Roumania. Large quantities of grain, livestock and industrial equipment were removed such as approximately 50,000 tons of oilfield equipment, 87 per cent of which belonged to British and allied companies, two-thirds of the rolling stock and almost the entire merchant fleet.

6. The U.S.S.R. has firmly established itself as the major factor in the economic life of Roumania and has assimilated every major branch of Roumania's economy by means of Soviet-Roumanian companies in which Russia holds 50 per cent of the shares. The machinery of State is used to give every advantage to the Sovroms and to squeeze out the companies not concerned in them.

7. Sovroms constituted to date, control Roumanian shipping, air traffic, wood and timber production, banking, insurance and originally all the oil production not belonging to Allied interests.

8. In one of the Protocols attached to the Treaty of Friendship, Collaboration and Mutual Assistance between Russia and Roumania signed in Moscow on February 4th 1948, it was laid down that in case Roumania were threatened by invasion or air attack from the west, all Industries considered of importance to the war effort would be transferred to the U.S.S.R. in accordance with a plan to be drawn up by a mixed commission.

9. According to a further protocol attached to the same Treaty a mixed Roumanian Soviet Company is to be formed for the exploitation of the molybdenum mines in the BIHOR region of the BANAT. Similar Companies are to be formed for the exploitation and industrialisation of all mineral deposits in Roumania. The Roumanian "apport" will be constituted by the provision of the mineral deposits and necessary labour, whereas the Russians will supply the equipment and specialist technicians. In exchange for this the Russians will obtain 80% of the total production in either raw materials or finished products. The agreement is binding for 20 years. A further article stipulates that similar Companies are to be formed for the exploitation of coal, oil and metal deposits. Russia's part in these cases will vary between 20% and 70% of the profit, payable in kind. These examples are quoted to illustrate how completely Roumanian Industrial Development has been made subservient to Soviet requirements.

10. Industrial production in 1946 is given in the following table:-

INDUSTRIAL STATISTICS 1946

Industry	No. of Concerns	%	Capital Million Lei	%	Value of Output Million Lei	%
Chemicals	44	24.6	2,804,000	22.4	575.957	20.5
Food	12	6.7	556,000	4.4	121,700	4.3
Textiles	35	19.6	2,985,000	23.9	660,400	23.4
Metals	17	9.5	1,485,000	11.9	325,400	11.6
Timber	16	8.9	1,335,000	10.7	283,200	10.1
Building	33	18.4	2,015,000	16.1	557,900	19.8
Electricity Supply	3	1.7	480,000	3.8	44,000	1.6
Glass & Ceramics	3	1.7	90,000	0.7	27,008	1.0
Graphic Arts & Publishing	3	1.7	106,000	0.8	27,500	1.0
Mining	3	1.7	113,000	0.9	35,600	1.3
Transport	6	3.4	269,400	2.2	86,500	3.1
Others	4	2.2	280,000	2.1	70,305	2.5
TOTAL	179	100.0	12,498,400	100.0	2,815,470	100.0

A five year plan for the expansion and modernisation of the Metallurgical Industries (comprising RESITA, TITAN NADRAG and the various pre-war State-owned Metallurgical Works, was completed by a Committee of Roumanian experts in December, 1947 and submitted to the then Minister of Industry and Commerce. (Full details are available, if required). In July 1948 a credit of 7,527 Million Lei was voted for the expansion of the Metallurgical & Chemical Industries (how this sum is sub-divided between the two industries is as yet not known). It would therefore appear that the five year plan is being implemented.

III. NATIONALISATION OF INDUSTRY

The Official Gazette (MONITORUL OFICIAL) No.133 bis of 12th June 1948 publishes the Nationalisation law according to which all subsoil - not yet in possession of the State at the date of the foundation of the Roumanian People's Republic - becomes the property of the Republic.

707 private and limited liability companies, apart from 32 Petroleum companies are nationalised, but all Soviet Roumanian joint companies (SOVROMS) are explicitly excluded.

The nationalised concerns are grouped as follows:-

20 Metallurgical enterprises

115 Factories producing metal products, precision instruments, electrical equipment, garages and motor repair shops, shipyards.

25 Coal mines and stone quarries

56 firms producing building material

9 glass factories

20 building concerns

76 saw mills and wood working enterprises

9 paper mills and similar concerns

64 Textile mills and knitted goods factories (cotton)

34 Textile mills and knitted goods factories (wool)

36 Textile mills and knitted goods factories (silk)

17 Textile mills (hemp and jute)

12 dyeing concerns

12 tanneries and furriers

14 basic chemical concerns, including carbon black factory

53 manufacturing chemists, scent and cosmetic factories and pharmaceutical laboratories

18 breweries and alcohol distilleries

9 factories manufacturing glucose, dextrine, starch and compressed yeast.

33 edible oil mills

8 fruit drying establishments

10 concerns belonging to private railway companies

5 railway oil tank waggon hire firms

4 shipping companies

15 insurance companies.

Apart from the above, the following 31 Petroleum companies suffered the same fate. In the nine first named, British, American, French or Belgian capital was interested:-

1. Astra Romana (a Shell subsidiary)
2. Romano-Americana (Subsidiary of the Standard Oil of New Jersey)
3. Concordia (French and Belgian)
4. Steaua Romana (British, French and Roumanian)
5. Unirea (Subsidiary of Phoonix Oil & Transport Co. Ltd. of London)
6. Columbia (French capital)
7. Vacuum Oil Company S.A. din Romania
8. Romano-Belgiana (Belgian capital)
9. Dacia Romana Petroleum Syndicate (British capital)
10. Creditul Minier S.A.R.
11. Prahova S.A.R.
12. Industria Romana de Petrol (I.R.D.P.)
13. Foraj Lemoine, Ploesti
14. Moldomaphta S.A.R.
15. Sospiro
16. Neopetrol Soc. Anon. Miniera Romana
17. Petrol Block S.A.R.
18. EPS (?)
19. Astramina S.A.R.
20. Dezbenzinarea S.A.R.
21. Distributia S.A.R.
22. Aragaz S.A.
23. Nafta-Romana
24. Rodoventa
25. Bondrum
26. Starnaphta
27. Soc. Doicesti
28. Soc. Xenia
29. Soc. Noris
30. Soc. Petrolina
31. Schlumberger

The National Methane Gas Company was also nationalised.

Compensation is to be paid in Bonds which are to be redeemed out of the future profits of the nationalised enterprises. The amounts due to former owners are to be established by Commissions operating in conjunction with the Courts. No appeal against these decisions is permissible. No compensation is to be paid to owners who have left the country. Whether, and how, compensation will be paid to foreign owners has not yet been established.

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IV. Division of Industries into 33 Centres

In July 1948 Roumania's nationalised Industry was re-organised and sub-divided into the following 33 "Industrial Centres":-

1. The Industrial Centre of Processing Metallurgy
2. The Electrotechnical Industrial Centre
3. The Industrial Centre for the Iron & Steel Industry
4. " " " " Essential Chemical Industries
5. " " " " Chemical Processing
6. " " " " Plastic "
7. " " " " Sugar
8. " " " " Vegetable Oils
9. " " " " Canned Food
10. " " " " Mills and Macaroni
11. " " " " Alcohol and Fermented Products
12. " " " " Milk and by-products
13. " " " " Timber
14. " " " " Furniture and Manufactured Wood products
15. " " " " Printing and Engraving
16. " " " " Paper
17. " " " " Wool
18. " " " " Cotton
19. " " " " Silk
20. " " " " Hemp & Flax
21. " " " " Leather
22. " " " " Glass and Pottery
23. " " " " Hosiery and readymade Clothing
24. " " " " Ceramics and Building Material
25. " " " " Power and energy
26 " " " " Coal
27. " " " " Methane Gas
28. " " " " Silver, Gold and Non-Ferrous metals
29. " " " " Quarries
30. " " " " MUNTENIA (Wallachia)) For oil
31. " " " " MOLDOVA) exploitation
32. Centre for Roads and Special Constructions (C.L.R.S.)
33. " of Undertakings for Industrial and Civilian Construction Work (C.I.C.)

Each "Centre" has the authority to plan production, acquire and distribute raw material to the member works. It is empowered to centralise the buying of semi-finished and finished goods, control production, decide on future investments, carry out standardisation, finance the works, fix prices and control sales in the domestic market and carry out exports. Briefly they are to lead, develop and control the activity of all State undertakings.

The "Centres" are to take over the premises and personnel of the Industrial Boards.

SECRET

V. COAL

Reserves

Known and probable reserves of all types of coal found in Roumania are estimated as between 2.5 and 3 Milliard tons.

Production

In 1943 production reached 3,361,000 tons.

Detailed figures are available only up to 1940 when production did not exceed 2,640,000 tons.

From the following table, the relative importance of the 30 known Coal producers can be gauged. The figures are those for 1936:-

Name of Company	Location District	Surface of Mining Concession in hectares	Production in tons
PETROSANI	Hunedoara	6,198	1,011,730
"	Bacau	120	34,731
"	Dambovita	425	
"	Dambovita	327	3,743
UZINELE DE FIER SI DOM. RESITA	Caras	946	
" " " " "	Caras	609	207,310
CREDITUL CARBONIFER	Bacau)	3,989	898
" "	Bacau)		
" "	Caras	376	9,794
MINELE SORECANI	Cluj	1,583	90,805
LONEA	Hunedoara	2,208	90,101
LIGNITUL	Muscel	1,221	72,447
CONCORDIA	Brasov	397	57,197
MICA	Hunedoara	194	36,180
MINELE DE CARBUNI SURDUC	Salaj	688	29,429
K.GEORGESCU & M.BENDIC	Dambovita	201	27,233
VALEA AGRISULUI	Salaj	562	26,566

COAL (contd)

Name of Company	Location District	Surface of Mining Concession in hectares	Production in tons
CARBUNELE	Muscel	273	20,987
BATAIA	Muscel	141	20,144
INDUSTRIILE MIN.DIN BANAT	Caras	829	14,560
MINA SOTANGA	Dambovita	340	12,655
L.ZARRA & M.BENDIC	Dambovita	340	9,406
CAL.TRUC	Hunedoara	234	8,433
COMBUSTIBILUL	Muscel	125	4,747
MINA SCHELA	Gorj	600	3,707
DRAGAN	Muscel	286	2,520
DEJNA-TATARUS	Bihor	549	-
C.IONESCU	Prahova	7	698
G.M.CORBESCU	Dambovita	200	685
MINIERA	Buzau	125	506
LOTENI	Muscel	579	408
PRIMA SOC.MIN DIN CHIURGHIU	Muros	58	211
DR.GEZA SZALAY	Muros	-	145
CALDEA	Prahova	5	80
MINA LACHE-PRATILA	Prahova	7	61
CAVAIL CAMPENI	Cluj	108	58
TOTAL		24,829	1,964,394

Coke Production

The quantities of coke produced in gas works (at Bucarest, Galatz, Brasov and Temisoara) and by the Resita Steel Company (the only producer of metallurgical coke) are given in the following table:-

COAL (contd)

Year	Production in tons
1931	38,000
1932	23,780
1933	27,715
1934	52,168
1935	66,462
1936	63,214
1937	78,214
1938	80,030

A project exists to build a coking plant at LUPENI. After lengthy experiments it was established that Lupeni coal is cokeable, if suitably mixed with other coal. Some of the equipment had already arrived from Germany in 1944, but it is doubtful whether the scheme can now be completed.

Briquette Production

Name of Company	1935	1936	1937	1938
PETROSANI	108,515	98,973	124,749	87,874
CREDIT CARBONIFER	49,781	48,230	51,857	58,160
RESITA	47,326	37,371	43,866	53,786
CONCORDIA	10,185	19,095	23,090	22,624
LONEA	14,201	17,792	18,768	22,712
TOTAL	230,008	221,461	262,330	245,156

Categories of coal consumers of the PETROSANI Company in 1938, which is typical for the whole country:-

State Railways	74,68%
Gas & Electrical Power Stations	4.18%
Various Industries	13.45%
Brick Yards	3.65%
Domestic consumption	3.03%
Furnaces	0.99%
Export	0.02%

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COAL (contd)

The following table shows normal and maximum gross production figures of the important coal companies and the number of miners employed.

Name of Company	Daily normal capacity with equipment available in 1945		Maximum Daily capacity with equipment available in 1945	
	Tons	Number of miners	Tons	Number of Miners
JIU VALLEY region	6,640	7,657	7,460	7,800
PETROSANI	6,000	6,800	6,700	6,900
LONEA	600	770	700	770
SALATRUC	40	87	60	130
BANAT Region	825	1,341	1,035	1,641
RESITA	790	1,130	1,000	1,430
CREDITUL CARBONIFER	35	211	35	211
BRASOV Region	220	407	340	630
CONCORDIA	220	407	340	630
TROTUS VALLEY Region	850	1,737	970	1,927
CREDIT CARBONIFER	700	1,437	800	1,587
PETROSANI	150	300	170	340
MUNTENIA Region	980	1,123	1,250	1,438
LIGNITUL	540	593	540	593
BATAIA Co-operative	150	167	200	222
CARBUNELE "	75	83	100	111
DRAGAN "	30	75	40	100
COMBUSTIBIL "	30	33	50	56
SOTANGA	50	56	70	78
GEORGESCU & BENDIC	75	83	270	245
EXPL. VALEA MEULUI	30	33	80	33
SOMES VALLEY REGION	620	1,580	790	1,960
BORECANI Mines	310	640	370	700
SOC. VALEA AGRISULUI	160	340	220	660
SURDUC Mines	150	600	200	600
TOTAL	10,135	13,845	11,845	15,396

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COAL (contd)

The following coal mining concerns were expropriated in June 1948:-

Name of Concern	Location
PETROSANI S.A.R.	Valea Jiului Doicesti (Distr.Dambovita)
CREDITUL CARBONIFER S.A.	Comanesti, Cozla
LONEA S.A.R.	Valea Jiului
CONCORDIA	Schitu/Colcesti;
	Brasov-Codlea
	Vulcan
DERNA-TATARUS	Derna-Tatarus
SORECANI	Cluj (Aghires region)
MINELE de LIGNIT din SALAT	Sarmasag

VI. MINERALS

Mineral Production (other than iron ore)

(tons)

	1936	1939
Manganese ore	33,856	41,546
Pyrites (copper and iron)	9,999	5,869
Copper ore	1,582	25,108
Lead ore	47,470*	46,589
Bismuth and Molybdenum	27	9,164
Bauxite	10,829	10,460
Silver (fine ozs)	594,757	819,876 **
Gold (fine ozs)	160,014	211,496

* 1937
** 1938

(a) GOLD & SILVER

Gold and silver ores are mined in Transylvania and in the BAIA MARE district.

(b) MANGANESE

Reserves of manganese amount to 9 million tons of high quality ore. These are mainly in the BANAT and BUKOVINA.

(c) COPPER

Copper pyrites, found in Dobrudja was only in the early stages of exploitation in 1939. Output was in the hands of the "Creditul Minier" petroleum company.

(d) LEAD & ZINC

Lead and zinc ores are mined in conjunction with the lead-silver ores in Transylvania.

Zinc production in 1938 was 5,900 tons - all exported. Lead ores were all smelted in the country. Production of lead metal in 1938 was 5,673 tons and was sufficient for domestic requirements. In 1946 it was only 1,274 tons. Lead smelters and refineries are at Satu Mare and Lucaci (near Slatna)

(e) BAUXITE

Bauxite reserves in 1939 were estimated at from 20 to 30 million tons. The most important deposits are in the Bihor mountains in Transylvania and contain 50

to 57 per cent aluminium oxide and 10 to 30 per cent of iron oxide. Production has, however, been very small and the founding of an aluminium industry has been continually postponed.

(f) CHROME

The development of chromite deposits in the Severin mountains near the Danube was contemplated in 1939. Production began in 1942 when 500 tons were mined. The ore contains 30 to 50 per cent chromium oxide and 15 to 30 per cent iron oxide. Rich strata in the Banat are estimated to contain reserves of 10 million tons of chrome ore. The Temesvar mine was exploited by the Germans in World War I and yielded 40,000 tons in 1917. The DABROVA deposits are considered to be the richest, with a 50% chromium oxide content. Their exploitation had not commenced in 1940.

(g) MOLYBDENUM

Molybdenum is found in the Bihor district. Production on any scale did not begin till the late 1930s. Production is known to have expanded considerably during the war, but detailed figures are not available.

Principal producers of Gold, Silver, Lead, Bauxite and Molybdenum

GOLD	Company	Location	Remarks
MICA, S.A.R.		Mines at: RUDA (12 Apostles) BARZA BRADISOR CARACIU LUSARIU VALEA MORII ROSIA	Comprising 2333 ha of mining concessions. Production in 1942: Fine gold 2,084 Kgr. (Total Roum. Gold produced 2607 kgs) The Company furthermore owns Mica mines at VOINEASA. Annual prod. about 90 tons. Coal mines at TEBEA. Prod. in 1942: 34,790 tons used exclusively in Comp's own thermo electric power station at CURA-BARZA. Two power lines: (a) to CERTEJ-DEVA (25,000 v) and (b) to ZLATNA-ABRUD (60,000 v). Output in 1942: 20,463,687 Kwh. Total number of workmen in Company's employ: 4,500.
AUR S.A.R. Min.		Gold Mines at: BUCIUM (4,000 ha concession) Gold Flotation and Cyanide installation at BUCIUM Mercury Plant at ZLATNA	The Company also owns Mercury mines at VALEA DOSULUI (700 ha concession). Capacity 80 Kg. mercury per day. Lead mines at ALMASUL MIC de MUNTE (400 ha) Bauxite concession (6,000 ha) at SOHODOL, PONOREL and SCARISOARA.

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MINERALS (contd)

Company	Location	Remarks
GOLD (contd)		
MINAUR (State-owned) formerly RIMMA	BAIA MARE	Produces: Gold, Silver, Pyrites, Copper sulphate, sulphuric acid, etc. No details available as to quantities.
INDUSTRIA AURULUI S.A.	ABRUD	Gold mines at BUCIUM
MINES D'OR de STANIJA S.A.	STANIJA	French capital: Gold mining concessions at STANIJA, ALMASUL MARE and TECHEREU (ALBA district) Prod. in 1941 39 Kg. Gold; 18 Kg. Silver.
MINELE de AUR "BREAZA ZLATNA" S.A.R.	ZLATNA	Prod. 1941: Gold 167 Kg. Silver 183 Kg.
BAUXITE		
ALUMINIA S.A. Min.	BRATCA	No details
BAUXITA S.A.R.		" "
IND. ROM. de ALUMINIU	ZLATNA PADUREA CRAIULUI in BIHOR District	" "
NITROGEN	TARNAVENI	Aluminium plant erected in 1942. No details available.
MOLYBDENUM		
MOLYBDEN S.A.	Mines at BAITA and district of BIHOR	Molybdenum. Flotation plant capacity 50 tons ore per day.

LEAD MINES

		Lead in ore output 1939 (tons)
State Mines BAIA MARE formerly R.I.M.M.A.	(1) Baia Sprie	1,320
	(2) Baiut	300
	(3) Capnic	1,154
	(4) Dealul Crucei	25
		2,799
Smelter and Refinery	FIRIZA de JOS (SATU MARE)	Capacity 5,000 tons refined lead per annum.

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MINERALS (contd)

Company	Location	Remarks
LEAD MINES (contd)		
"PHENIX" FABRICA DE ACID SULFURIC SI PRODUSE CHIMICE		Output:- 2,864 tons of ore in 1939.
Smelter and Refinery	BAIA MARE (LUCACI)	6,000 tons crude lead p.a. 3,300 tons refined lead p.a. 2 furnaces 4 reverberatories.

(h) SALT

Salt mining has been a State Monopoly since 1863. During the period 1937 - 1945, annual production has fluctuated between 276,600 and 380,000 tons.

The average internal per capita consumption is 10 Kgr. (including salt fed to domestic animals). Internal consumption is thus covered by 130,000 tons, plus 100,000 tons for industrial purposes.

The principal mines are situated at

TIRGU OCNA
SLANIC
OCNELE MARI
OCNA MURESULUI

Production in 1945 was 280,000 tons. Convict labour is used.

(i) CHALK

Company	Location	Remarks
S.A.A UZINELAR SOLVAY DIN ROMANIA.	Sandulesti	Chalk quarries, producing 300,000 tons of chalk per annum.

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VII. PETROLEUM INDUSTRY

Roumania is the sixth among the petroleum producing countries of the world. The main producing fields extend from the Iron Gates of the Danube eastwards. The Campina and Ploesti region are the centre and here also are the biggest refineries of which there were 35 in the country. Some have recently been closed down. Estimated known reserves in 1945 were 57 million tons. Peak production appears to have been passed. Output in 1936 was nearly 9.3 million tons but by 1939 it was only 6.24 million tons.

"Astra Romana" was the largest single company producing oil. This company was a subsidiary of the Royal Dutch Shell group [redacted] 25X

Owing to the deterioration in equipment, Roumanian output fell steadily during and after the war. In 1946 only 4.193 million tons were produced. In March 1947 British companies reported that their equipment was no longer serviceable for economic operation and only 135,000 metres were drilled in 1946 as compared with an average of 340,000 metres per annum during the War. Only 3 per cent of the output in 1946 was available for sale in the export market. 57 per cent went in reparations to the U.S.S.R. and 40 per cent was reserved for home use.

The policy apparently was to make the continued operation of the oil companies in which Allied capital was invested, impossible and in 1947 only 3,929 million tons of oil were produced. Deterioration of refineries, wells and drilling machinery was held to be so great that the industry was considered beyond repair. In March 1947 it was calculated that £50 million would be required to modernise the refineries alone.

In March 1948, Astra Romana S.A. declared itself forcibly dissolved. The Roumanian Government has thus been able to squeeze out foreign interests without the legal obligation to pay for damage wilfully done.

The chief Roumanian oil producing companies are as follows:-

( ) Principal Oil Producing Companies

Company	Output (000 tons)		
	1938	1939	1946
ASTRA ROMANA S.A. (Royal Dutch-Shell Subsidiary)	1,461	1,363	1,383
"CONCORDIA" S.A.R. PENTRU INDUSTRIA PETROLULUI	864	824	502

PETROLEUM INDUSTRY (contd)

Company	Output (000 tons)		
	1938	1939	1946
ROMANO AMERICANA S.A.	899	778	490
STEAUA ROMANA (Half Roumanian, one quarter British, one quarter French)	740	714	434
"COLUMBIA" (French)	377	625	290
"UNIREA" S.A.R. DE PETROL (British)	671	522	283
CREDITUL MINIER	381	305	236
PRAHOVA	335	309	200
INDUSTRIA ROMANA DE PETROL (I.R.D.P.)	167	147	79
FORAKY ROMANESCA	53	47	
TRUPUL DE PETROL ROMANESC	110	95	
DACIA ROMANA PETROLEUM SYNDICATE (British)	58	54	294
REDEVENTA	28	30	
FORAGE LEMOINE	56	48	

Refineries

Aggregate output per day from the 35 refineries was 26,600 tons before the war. Allied bombing during the war (particularly of the Astra Romana and Creditul Minier plants) reduced their capacity temporarily but by the end of 1946 the plants were capable of producing 19,700 tons daily. Principal refineries are as follows:-

Principal Petroleum Refineries

Company	Location	Pre-war Capacity (000 tons p.a.)	Remarks
ASTRA ROMANA S.A.	Ploesti	1,800	Production includes high grade oils and lubricants
STEAUA ROMANA	Campina	1,575	
CONCORDIA & VEGA	Ploesti-Nord	1,350	
UNIREA S.A.R. de PETROL	Ploesti	1,035	

SECRET

PETROLEUM INDUSTRY (contd)

Company	Location	Pre-war Capacity (000 tons p.a.)	Remarks
ROMANO AMERICANA	Teleajen	900	
PETROL BLOCK (Standard)	Ploesti	540	
Others		2,800	
TOTAL		10,000	

Among the "others" are:-

CREDITUL MINIER	Brazi, near Ploesti	Aviation spirit, high grade oil and lubricants
COLOMBIA	Ploesti	
PHOTOGEN RAFINARIA DE PETROL S.A.	Brasov	
TITAN S.A.R. de PETROL	Bucharest	15

Nationalisation

The whole Roumanian oil industry (with the exception of the "SOVROM PETROL" was nationalised on June 11th, 1948.

On July 12th and 27th, 1948, Ministerial Decisions were published in the Official Gazette creating two Petroleum Centres, viz. "MUNTENIA" comprising all oil enterprises and State Pipe Lines in WALLACHIA and "MOLDOVA" comprising those in MOLDAVIA.

Pipe Lines and Pumping Stations

The pipelines and pumping stations are run by a special Department of the Roumanian State Railways.

(a) Pipelines

Pipeline No.1

From BAICOI through PLOESTI, TELEAJEN (3 miles North East of outskirts of PLOESTI), BUAZU, FETESTI, CONSTANTA. Distance 296 km.

From BAICOI to MONTEORU, 9" inside diameter. From MONTEORU to CONSTANTA 10" inside diameter.

Carries white products only.

Pumping is effected at TELEAJEN and re-pumping at BUZAU.

SECRET

PETROLEUM INDUSTRY (contd)

Throughput 2,000 tons per 24 hours.

Reservoirs for receiving the products from the various companies are situated at BAICOI and TELEAJEN. Capacity of reservoirs at TELEAJEN is 22,000 cu.m.

The course of the pipeline is parallel with the railway as far as FETESTI, after which it falls away from the line.

Pipelines Nos.2 and 3.

From BAICOI through PLOESTI-WEST, CHITILA, BUCHAREST circular railway line, thence along highway from BUCHAREST to GIURGIU.

Inside diameter 5"

Throughput 450 tons per 24 hours for each pipeline.

Carries motor petrol, oil distillates, octanic petrol and motorine.

Reservoirs for receiving the products at BAICOI and PLOESTI-WEST.

Distance from BAICOI to GIURGIU, 145 km. each line.

Pipeline No.4

From BAICOI through PLOESTI-WEST to BUCHAREST.

Inside diameter 5"

Follows the railway line throughout the whole distance of 76 km.

Carries crude oil for the PETROL-BUCURESTI refinery owned by the PRAHOVA Company.

Throughput 600 tons per 24 hours.

Reservoirs for receiving the crude oil at BAICOI.

Pipeline No.5

From TELEAJEN to BUCHAREST, alongside the PLOESTI-BUCHAREST highway.

Outside diameter 10"

Throughput 1,650 tons per 24 hours.

Carries special fuel to Bucharest.

Distance 56 km.

Reservoirs at TELEAJEN.

PETROLEUM INDUSTRY (contd)

Pipeline No.6

This branches off from pipeline No.1 (see above) at FAUREI, and thence passes through BRAILA and GALATZ to the Russian bulk station at RENI.

Erected from material dismantled from the former 10" line from TELEAJEN to GIURGIU.

Outside diameter 10" with exception of PLOESTI-MONTEORU section which is 9".

Distances: PLOESTI-MONTEORU (16 Km. N. of BUZAU) 60 Klm.

MONTEORU-FAUREI 50 Klm.

FAUREI - RENI 110 Klm.

Carries motor petrol

Throughput TELEAJEN to RENI 2,000 tons per 24 hours.

Operates simultaneously with pipeline No.1 (to CONSTANTA) or separately.

Reservoirs at TELEAJEN.

Pipeline No.7

CAMPINA - BAICOI - two lines. Diameter not available.

Pipeline No.8

COMESTI (FRATOVA) - BUCAREST - 1 line. Oil well gas only. Length 54 Klm. Work on this line was started in August 1948 apparently for the purpose of making uniform the pipe diameter over its whole length, which will permit of an additional 400,000 cu.m. of gas to be delivered to Bucarest, chiefly for Industrial Plants, commencing December, 1948.

(b) Pumping Stations

BAICOI

Serves pipelines Nos.1,2,3 and 4.

Has two reserve pumps.

Products are carried to PLOESTI-VEST and TELEAJEN, the principal pumping stations, by the natural fall of the pipeline.

Reservoirs at BAICOI: 11 reservoirs each of 1,000 cu.m. capacity for the various products.

PETROLEUM INDUSTRY (contd)

Pumping Stations (contd)

PLOESTI-VEST

Serves pipelines Nos.1, 2 and 4. Sole pumping station for pipelines 2, 3 and 4.

Situation on Western outskirts of the town of Ploesti.

Reservoirs: 8, of varying capacities. Total capacity 6,000 cu.m.

The station comprises 4 pumps worked by steam engines.

TELEAJEN

Situated on Eastern outskirts of Ploesti. Serves pipelines Nos. 1, 5 and 6.

16 reservoirs of a total capacity of 41,000 cu.m. for the various products.

Centrifugal pumps operated by electric and Diesel motors.

(c) RE-PUMPING STATIONS

BUZAU

Situated on South-western outskirts of BUZAU. Serves pipeline No.1 and also, indirectly No.6.

Has 2 reservoirs for possible evacuation of products from the pipeline.

Centrifugal pumps operated by Diesel motors.

HAGIENI

Situated on the branch line from TANDAREI to FETESTI, 20 km. NNE of the latter. Serves pipeline No.1 only.

Pumping installation the same as BUZAU.

(d) BULK RECEIVING STATIONS

PALAS (CONSTANTA)

For Pipeline No.1

GIURGIU

For Pipelines Nos. 2 and 3.

VIII. METHANE GAS

Whereas the production of oil well and refinery gas in Roumania has steadily declined

from 3,766,000,000 cu.m. in 1935
1,550,197,218 " in 1939
1,304,400,000 " " 1945
to 1,000,000,000 " " 1947 (approx)

the production of Methane Gas in Transylvania has steadily increased from

133,180,545 cu.m. in 1935
358,482,682 " " 1939
537,565,500 " " 1945
to 681,416,812 " " 1947

Comparison with other countries shows that Methane gas deposits in Transylvania, estimated at over 300,000 million cubic metres are high in relation to Roumania's size and population. The use now being made of these deposits is hardly adequate, (0.3% per annum of the total as compared to 2.5% in the United States and 1% in the U.S.S.R.) Even a moderate exploitation of Transylvanian Methane Gas fields could yield, without excessive effort, a production of approximately 3,000 million cubic metres a year.

In order to prove how great fuel requirements are in the present stage of development of the Roumanian industry, the following figures may be of interest, showing the total fuel consumption of various kinds in 1939.

Fuel Consumption in Roumania and its equivalent in Methane Gas

Fuel	Fuel Consumption 1.39	Equivalent in methane gas 8125 Cal/m³(15°-C 760 torr	%
Coal	2,303,094 tons	1,7[illegible]0,728,000 cu.m.	23.5
Firewood	[illegible],000,000 "	3,000,000,000 "	41.4
Liquid fuel	1,491,877 "	1,758,822,000 "	24.3
Oil well & refinery Gas	399,036 thous. cu.m.	430,933,000 "	6.0
Methane Gas	348,655 "	348,655,000 "	4.8
TOTAL		7,239,148,000 "	100.0

METHANE GAS (contd)

The increased Methane gas production in the last few years replaced industrial liquid fuels first in the area of Brasov, and later in the upper valley of the Prahova and in the petroleum area by approximately 600 million cubic metres of methane gas.

The construction of the pipeline BOTORCA-BUCURESTI which was completed in December, 1947 is designed appreciably to reduce the internal industrial liquid fuel consumption in the Bucarest region. The oil well gases piped from MANESTI to BUCHAREST proved to be insufficient for that purpose.

Apart from the production of carbon black, which was begun by the "SOMETAN" Company in 1935, Methane gas is used on a small scale as raw material by the "NITROGEN" and "NITRAMONIA" Companies for the production of synthetic ammonia, as also by "SOMETAN" beginning from 1941, for the production of formaldehyde, oxalic acid and formic acid. It is stated that large plants for the production of synthetic ammonia and nitric acid from methane gas are under construction Details are required.

Methane gas is used by industries of all classes as is shown by the following table:

Branch of Industry	Concerns using Methane gas	Concerns using other fuel
(a) Building material industry		
(i) Cement	64.8%	35.2%
(ii) Lime	22.5%	77.5%
(iii) Bricks and tiles	7.7%	92.3%
(iv) Glass	64.5%	35.5%
(b) Chemicals		
(i) Salts, acids and alkalis	30.0%	70.0%
(ii) Chemicals in general	5.8%	94.2%
(c) Metallurgical Industry		
(i) Cables, sheet steel	15.4%	84.6%
(ii) Iron works	17.3%	82.7%
(iii) Vehicles	19.4%	80.6%
(iv) Metallurgical industry in general	15.3%	84.7%
(d) Timber industry		
(i) Paper and cellulose	67.7%	32.3%
(ii) Timber industry in general	11.6%	88.4%
(e) Textile industry		
(i) General textile industry (wool, cotton, silk)	9.5%	90.5%
(f) Leather industry		
(i) Leather, shoe leather	12.1%	87.9%

METHANE GAS (contd)

Branch of Industry	Concerns using methane gas	Concerns using other fuel
(g) Food industry		
(i) Sugar	4.4%	95.6%
(ii) Mills	21.0%	79.0%
(iii) General food industry	4.1%	95.9%
(h) Electric power industry	27.0%	73.0%

The above list shows that no industrial branch uses Methane Gas exclusively.

Methane Gas consumption in 1939, 1945, 1946 and 1947.

	1939		1945		1946		1947	
	Cu.metres	%	Cu.metres	%	Cu.metres	%	Cu.metres	%
Household and Lighting	39,718,622	11.4	155,186,016	29.3	175,984,071	28.3	210,580,750	22.3
Industry:								
Power Stations	104,675,305	30.0	178,979,923	33.9	200,007,686	32.3	417,400,822	44.3
Industrial furnaces and boilers	135,549,434	38.9	125,061,434	23.5	173,150,545	28.0	224,047,493	23.8
Carbonblack	68,710,978	19.7	69,685,059	13.3	69,783,024	11.4	90,270,224	9.6
TOTAL	348,654,539	100.0	528,912,432	100.0	618,925,326	100.0	942,299,289	100.0

IX. CARBON BLACK PRODUCTION

1. Production of Carbon Black is in the hands of one concern, the SOCIETATEA NATIONALA DE GAZ METAN, which runs two factories situated at COPSA MICA and MEDIAS. The capacity of the COPSA-MICA plant is 1,400 tons. The MEDIAS DISSOCIATION PLANT came into production in 1941 with a capacity of 200 tons per annum.

2. In 1939 actual production was 908 tons, by 1947 it had risen (both plants) to 1,100 tons. At the same time the percentage of gas consumed for carbon black as compared to gas output fell from 19.7% to 9.6%.

3. The production of thermal dissociation carbon black is to be further developed so as to reach a total output of 1,800 tons. A credit of 17.5 million Lei was accorded by the Government in July 1948 for this purpose.

X. STEEL WORKS AND ENGINEERING CONCERNS.

The most important concern is the

(1) "ACIERIES & DOMAINES DE RESITA"
(UZINELE DE FIER SI DOMENIILE DIN RESITA)

now name: FABRICA VIITORUL.

The Company's main works are situated at RESITA, in the CARAS district of the BANAT (S.W. corner of Roumania) and its Domains extend between LUGOS and the DANUBE, parallel with the Yugoslav frontier for about 60 miles. The estate comprises about 90,000 hectares, covered partly by forests (chiefly beech), and 50 hectares of vineyards. Nearly 1,000 klm. of roads and 175 klm. of normal and narrow gauge railways owned by the Company ensure internal communications.

(a) Coal Mines

The Company owns three coal mines, situated on its estate at

(i) ANINA (4 shafts) with coal screening and washing installation.
(ii) DOMAN (1 shaft) with coal screening installation.
(iii) SECUL (1 shaft) with pneumatic coal screening installation.

the total annual capacity of which is about 200,000 tons of coal. Actual production in 1943 was 163,469 tons. The company also produces about 50,000 tons of briquettes in its factory at DOMAN. The coal from (i) and (iii) is suitable for coking.

(b) Coking Plant

The modern coking plant built in 1934 is situated at RESITA and is composed of 24 ovens, producing 80,000 tons of coke per annum. As this is insufficient for their own requirements, the Company has to import considerable quantities of coke from abroad, chiefly from Poland. When working to capacity, RESITA requires 130,000 tons of coke per annum.

(c) Pig Iron Production

The two blast furnaces at RESITA have an annual capacity of 120,600 tons and produced in 1943 a total of about 105,000 tons of pig iron. The Company owns iron ore mines at DOGNECEA (iron content 50-60%, having visible reserves of 400,000 tons and probable reserves of 600,000 tons, and other mines situated at OCNA de FIER, FENES, DELINESTI, SIMERSIC and ARMENIS.

When working to capacity RESITA requires 208,000 tons iron and manganese ores per annum. In 1943 they imported 145,000 tons, the balance of 57,400 being obtained from their own mines. As a result of the recently concluded Trade Agreement with Yugoslavia, RESITA is to receive 200,000 tons of iron ore from Yugoslavia.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(d) Steel Works

There are seven Siemens Martin furnaces, capacities. 5 of 45; 2 of 50; 1 of 60 and 1 of 100 tons. One of these furnaces is oil fired. Annual capacity 245,000 tons of open hearth steel. In 1943, the production was 222,355 tons. There also exists a special 4 ton oil-fired furnace for special steel castings.

(e) The two HEROULT Electric Furnaces of 6 and 3 tons respectively have an annual capacity of 15,000 tons and produced 11,000 tons of special steels in 1937.

(f) Foundry

The iron foundry has a capacity of 15,000 tons but produced only 7,900 tons in 1943 and also 200 tons of bronze castings. It is equipped with up-to-date moulding machines.

(g) Rolling Mills

The rolling mills (total capacity 220,000 tons per annum, consist of:-

(i) Rails and sections mill, capacity 130 tons per 8 hour shift. In 1943, production reached 80,962 tons.

(ii) Plate and sheet mills on which thick, medium and thin material can be rolled. Capacity 60-70 tons per 8 hour shift. In 1943 production was 26,233 tons.

(iii) The "medium" rolling mill, composed of a preliminary and a finishing mill, producing small sections such as Decauville rails, etc.; capacity approximately 80 tons per 8 hour shift. In 1943 production reached 53,025 tons.

(iv) The light rolling mill, producing reinforcing rods, strip, etc. Capacity about 80 tons per 8 hour shift. In 1940 production was 61,329 tons.

(h) Tyre Shop

This modern installation was built by German exports in 1934 and has a 2,000 ton hydraulic press; heat treatment is entirely electric. The capacity of this shop (25,000 tons per annum) is sufficient to cover the entire peacetime steel railway tyre requirements of all the Balkan States. In 1942 the production of tyres reached 11,160 tons and in 1946 - 12,368 tons.

(i) Refractory Brick Factory

The company manufactures the greater part of its requirements of lower grade refractory fire brick ("Chamotte in its own factory situated just outside the town of RESITA.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Its annual capacity is about 15,000 tons. The output of ordinary building bricks is about 3 million per annum. High grade Magnesite and silica bricks are, however, imported from abroad (Czechoslovakia).

(j) Cement Factory

In 1944 the Company installed a Cement Factory which produces "slag cement". Its annual capacity is 5,000 tons.

(k) Locomotive Shop

This shop was built in 1924 and is equipped with modern machinery. Its capacity is 10,000 tons, equivalent to 150 new locos per annum. In 1939 over 4,000 tons were produced; in 1941 only 1,000 tons plus heavy repairs of 49 old locomotives. An order for 24 new locomotives for Russia, on reparations account, is to be carried out during the 5th "Armistice Year", Sept.1943/August 1944.

(l) Forge

The equipment is old, consisting of 15 steam hammers of 5 tons and above; 17 presses of 2 tons and 31 heating furnaces.

(m) Machine Shops

Most of the machines utilised in the manufacture of guns and shells were transferred from RESITA in 1936 to the ASTRA Works at BRASOV (q.v.). In 1939 the shops were modernised and in 1945 disposed of 862 up-to-date machine tools capable of carrying out high grade machining. In spite of the transfer of the armament side to BRASOV, RESITA resumed production of gun parts and ammunition during the war. In 1942 this production reached 7,680 tons. Apart from this these workshops turned out over 10,000 tons of various machines and tools for the Petroleum Industry.

(n) Tool Room

An absolutely up-to-date tool room with 146 high grade precision machine tools was installed in 1935 in which, apart from all normal tools, the most complicated cutters, reamers and gun rifling appliances can be manufactured.

(o) Bridge building yard

This is one of the largest of its kind in South East Europe. The yard has built important bridges all over the country, many of which are entirely welded. It also specialises in metal aircraft hangars, oil reservoirs and other steel constructions. Its output in 1938 was 12,700 tons; in 1943 only 8,900 tons.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(p) Wheel set shop

This shop is equipped with 68 heavy machines for machining steel tyres and shrinking them on to loco and waggon wheels and also fixing the wheels on the axles.

(q) Shop for production of railway points and switches

Adjacent to the wheel set shop is the well laid out points and switches shop which in 1946 produced 1,700 complete points and switches for both normal and Russian broad gauge lines.

(r) Electrical machinery construction shop

In this shop, built in 1923, electrical equipment of all sorts (electric motors up to 2,000 H.P.) are built for the Company's own use, as well as for sale to other industries.

(s) Agricultural Machinery factory

Situated at BOCSA ROMANA, this section produces ploughs, harrows, drills (on the RESITA Domaine), threshing machines, etc. Its capacity is about 30,000 machines per annum. Apart from this the factory produces every type of tool used by the peasants in field work.

In 1936 a special plant for the automatic production of horse shoes was installed. Its capacity is 3 million horse shoes per annum, which covers the total requirements of the country including the army. Expressed in tons this factory's output reached 7,035 tons in 1943.

(t) Bolts, Nuts and Screws factory

The annual output of this section is about 3,000 tons and consists chiefly of railway material such as fish plates, spikes and bolts.

ELECTRIC POWER STATIONS

ANINA: 1 Metro Vickers Turbine of 7,500 Kw (Installed 192?

1 Brünn Turbine of 2,000 Kw. (Installed 1919)

Pulverised coal fuel is used in the boilers.

RESITA: 1 A.E.G. Turbo-alternator of 4,500 Kw. (Installed 1937)

4 gas motors "Eberhardt & Schmer" of 900 Kw each (in reserve)

GREBLA: 1 Turbo-alternator 8,000 Kw. Brown Boveri. Installed 1940. Fed by 2 modern VELOX high pressure boilers.

1 Hydro electric power station of 4,500 Kw. capacity (3 Pelton turbines).

STEEL WORKS AND ENGINEERING CONCERNS (contd)

There are also some smaller power stations on the Domain which serve local purposes only (e.g. one 200 Kw. Turbo-generator A.E.G. and one 200 Kw. Francis Turbine at GREBLA.

Total production of electric power amounts to over 100 million kwh per annum.

Timber Industry

The company possesses four timber mills as follows:-

ANINA
4 frame saws
3 circular saws
2 "Pendulum" saws
1 Installation for steaming beech wood.

Installed power 150 H.P.

VASIOVA
3 frame saws
4 circular saws
1 Installation for steaming beech wood

Installed power 220 H.P.

VALIUG
2 frame saws
1 circular saw

Installed power 75 H.P.

ZAVOI
2 frame saws
1 circular saw

Installed power 50 H.P.

Annual production:

ANINA
30,000 cu.m. logs
15,000 cu.m. sawn timber

VASIOVA
7,000 cu.m. logs
4,000 cu.m. sawn timber

VALIUG
4,000 cu.m. logs
2,000 cu.m. sawn timber

ZAVOI
4,000 cu.m. logs
2,500 cu.m. sawn timber

The company furthermore produces: 1,000 cu.m. of firewood
1,000 cu.m. of pit props
1,000 cu.m. of constructional wood

200,000 cu.m. are treated in the wood distillation factories at RESITA and VALEA MINISULUI, where charcoal, methyl alcohol and acetone are produced.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Quarries

The Company quarries 70,000 tons of limestone, 1,000 cubic metres of granite, 200 cubic metres of marble and 12,000 tons of sand for metallurgical purposes.

Assembly and filling of Ammunition

Together with the ASTRA Company, RESITA installed, prior to the war, a large ammunition assembly and filling station at ORASTIE. It is reported that this has now been transformed for the manufacture of pharmaceutical (See also under "Astra", Brasov).

Wine Production

The annual production of the Company's 50 ha. of vineyards amounts to approximately 1,000 hl. of wine of good quality.

Reported actual production in 1946

24 new locomotives
4,901 railway waggon wheel sets
7,900 tons of bridging material
1,700 complete points and switches
25,000 drill pipes (for oil wells)
460 drilling bits
150 electric motors
10 steam engines
10,000 tons of rolled material

Number of workmen and employees in 1946

25,000 (approx).

The Technical Director is a Russian: F.SERGHIENKO.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(2) THE MALAXA GROUP

Head Office: Bulevardul Bratianu No.35a, Bucarest.

The MALAXA Group of factories is composed of the following three companies:-

N.MALAXA S.A.R. FABRICA DE LOCOMOTIVE SI MASINI

(Now called "UZINA 23 AUGUST")

with works situated SOSEAUA VERGULUI, HALTA TITAN near Bucarest, comprising the Locomotive and Machine Factory.

N.MALAXA UZINELE DE TUBURI SI OTELARII S.A.R. (Tube and Steel Works)

(Now called "UZINA REPUBLICA")

having their works also at HALTA TITAN which is situated on the Eastern outskirts of Bucharest about 4 Klm. from the "BARIERA VERGULUI".

N.MALAXA S.A.R.FABRICA DIN TOMNUL VECHIU

(Now called "UZINA 6 MARTIE")

Shell and Fuze Factory and Filling Station, situated at TOMNUL VECHIU in Transylvania.

(Note: During the ATONESCU regime, the whole concern was known under the name of ROGIFER).

N.MALAXA, the owner, left ROUMANIA for the U.S.A. in 1946 as a member of a delegation sent out by the Roumano-American Chamber of Commerce in Bucarest and has not returned to Roumania since. The works were nationalised in June 1948.

A. HALTA TITAN WORKS

This group of works, which comprises the Locomotive and Machine Factory, the Tube Rolling Mill and the Steel Works, extends over an area of 63 hectares. Shops and offices, all of modern design, cover about 20 hectares. The works are equipped with numerous railway lines, turntables, cranes and an electrical transporter for moving locos and waggons during and after manufacture.

1. POWER SUPPLY

Installed power at MALAXA Works at TITAN: 22,000 H.P. Large storage tanks for liquid fuel (cap.about 8,500 tons) are directly connected with the PLOESTI-BUCAREST pipe-line. METHANE gas is to be piped to the works in the Autumn of 1948.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

2. PERSONNEL

Whereas the strength of the office staff was 810, the number of men employed at all the branches of the TITAN works in December, 1945 was 7,344. In March 1948 it it had declined to 6,148, plus 450 apprentices.

3. STEEL WORKS

The Steel Works supply both the Locomotive and Machine Factories and were originally intended to supply also the Tube Mill.

2 Siemens Martin open hearth furnaces installed in 1936.

Capacity: 30,000 tons per annum.
Production in 1942 - 22,000 tons
" " 1943 - 25,000 tons.

In the Autumn of 1947 a new 6 ton oil fired Siemens Martin furnace was installed, with a capacity of 6-8,000 tons per annum.

1 Electric furnace with a load capacity of 2 tons and annual output capacity of about 1,500 tons of tool steel.

4. STEEL FOUNDRY

	1939	1940	1941	1942	1943
Production of steel castings (tons)	2,984	2,468	2,690	4,136	4,570
Cast Steel wheels for railways(pcs)				20,000	22,500

The works have recently started the production of cast steel bogeys for large goods trucks of 50 tons capacity.

5. IRON FOUNDRY

	1939	1940	1941	1942	1943
Production of castings(tons)	914	1,497	1,608	2,400	2148
Components for automatic brakes (railways)(pcs)	2,344	108	112	129	26

6. NON-FERROUS METAL FOUNDRY

	1939	1940	1941	1942	1943
Production in tons	302	263	298	306	107

STEEL WORKS AND ENGINEERING CONCERNS (contd)

7. MOTOR VEHICLE REPAIR SHOP

Production figures:-	1939	1940	1941	1942	1943
Repairs executed	-	312	-	-	-

8. METALLIC CONSTRUCTION SHOP

Production figures including springs and steel traction bars (tons)	3,134	2,844	3,516	1,110	1,703

9. MUNITIONS FACTORY

This forms part of the Machine factory. During the war, however, part of the machinery was transferred to TOHANUL VECHIU. The bulk of the machinery is now stated to have been returned to the works at TIT[illegible].

	1939	1940	1941	1942	1943
Production of Shells (rounds)	516,000	835,000	883,000	1,635,000	1,05[illegible],000
" " Fuzes (pcs)	475,000	80,000	463,000	1,504,000	570,000
Production of Brandt mortar shells				1,500	336,000

Prior to and during the war the shells were sent to the filling establishment at TOHANUL VECHIU for completion.

No ammunition is being manufactured at present (August,1948), but in case an order were received, production could be restarted in 4 months.

10. LOCOMOTIVE FACTORY

In March, 1948, this factory was stated to be turning out locomotives, railcars and boilers. The MALAXA Works also manufacture "KNORR" brakes, which are being fitted by the Roumanian Oil Companies to their own rail tank cars. According to a recent report, all such tank cars have to be fitted with automatic brakes by 1st December, 1948.

In 1947, up to 90% of total output was destined for Russia; this has recently been reduced to about 70%. A Russian delegate is attached to the Factory.

Production figures for	1939	1940	1941	1942	1943
Production of new locos	79	41	8	-	-
" " " rail-cars	14	11	4	8	10
Repair of locos and railcars	295	214	226	136	42

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Output of Locomotive and Machine Works during first Quarter of 1948

	January		February		March	
	Planned	Accomplished	Planned	Accomplished	Planned	Accomplished.
(a) New locos for U.S.S.R. Price: Lei 29,700,000 ea.	2	3	3	3	3	3
(b) New railway trucks for U.S.S.R. Price Lei 3,721,000 ea.	45	60	50	40	50	15
(c) New Duplex Pumps for U.S.S.R. Price: Lei 4,100,000 ea.	-	1	-	1	2	2
(d) New SUCHOV Boilers for U.S.S.R. Price: Lei 1,600,000 ea.	6	6	6	-	6	6
(e) Repair of 2-axle railcars	1	2	1	4	1	(For 1(Rouma- (nian (State (Rlys)
(f) Repair of 4-axle Railcars	4	3	3	4	6	3
(g) Automatic brakes for Russian Rlys.	10	5	10	12	10	9
(h) Automatic brakes for Russian Rly Waggons	50	52	50	37	50	25

The corresponding actual production figures for the second quarter were as follows:-

	April	May	June
New locos for U.S.S.R. (108 tons each)	3	3	3
New locos for Roumanian Rlys 103 tons each. Lei 31,000,000 each	1	1	1

STEEL WORKS AND ENGINEERING CONCERNS (contd)

	April	May	June
New Railway trucks for U.S.S.R.	55	40	50
Duplex Pumps for U.S.S.R. 10 tons each	2	2	1
Suchov Boilers for U.S.S.R. 9 tons each	6	6	10
Bolinder Motors for U.S.S.R.	-	-	-

NOTE: MALAXA had on order - for reparations account - 25 Russian locomotives for manufacture during the 4th Armistice year (Sept.1947 to Aug.1948). The last one of this batch is due for delivery on August 10th, 1948. The monthly production capacity for the 5th Armistice year - dependent upon receipt in time of various rolled steel components from the RESITA Steel Works - has been reported to be :-

5 BOLINDER 25 H.P.Industrial Motors for U.S.S.R. Price Lei 780,000 each.
(All ball bearings to be supplied from Russia)
1 "DUPLEX" Pump,capacity 315 cu.m. per hour.

6 SUCHOV boilers of 35 m^2/3 atmos.

5 locomotive boilers of 100 m^2/25 atmos.

It would appear that during the 5th Armistice Year MALAXA are not to build locomotives. 25 of these have been allocated provisionally to RESITA.

In view thereof they are to manufacture 214 railway waggons for the Russian Railways.

11. MANNESMANN TUBE ROLLING MILL

Two mills of absolutely up-to-date design and of German manufacture were installed in 1937. A 1948 report states that total capacity of the two mills was approx. 100,000 tons.

The large mill, capable of turning out pipe upto 15 inch and having an alleged capacity of 75,000 tons, was dismantled in 1945 and sent to Russia on reparations account. It is stated to have been re-erected near NIKOPOL, probably at the large NIKOPOL-MARIUPOL pipe mills.

The small mill manufacturing tubes from $\frac{3}{4}$ to 6 inch (in 1947 increased by structural modifications to a maximum of 7 inch) with a capacity of 25,000 - 30,000 tons, was reported in April,1948 to be working full out. Raw material is supplied by the U.S.S.R. Only 10% of the output

STEEL WORKS AND ENGINEERING CONCERNS (contd)

is stated to be retained for Roumanian requirements.

	1939	1940	1941	1942	1943
Production of Tubes up to 6 in. in tons	8,285	14,177	13,987	8,081	8,135

PRODUCTION CAPACITY of the TITAN LOCOMOTIVE AND MACHINE FACTORIES AND ROLLING MILL

Although the total production capacity of the factories depends on the type of products required, which varies from year to year, generally speaking the annual production capacity under normal conditions of the Bucuresti-Titan group of factories may be said to be as follows:-

New locomotives	36-60 pieces (depending on type and size)
New Automotors (4-axle)	18-24 pieces
New Diesel Locos.	20 pieces
New goods waggons	500-550 pieces
Repaired locomotives	80-120 pieces
Repaired Automotors	60-80 pieces
Waggon Brake sets (Knorr system)	6,000 sets
Various Diesel motors	50 pieces
Bolinder motors	60 pieces
Simplex Pumps - 50 cu.m.	60 pieces
Duplex pumps, 315 cu.m.	24 pieces
Horizontal Boilers 35-180 sq.m.	72-80 pieces
Tramway trailers	60 pieces
Forgings	6,500 tons
Steel, iron and non-ferrous castings	18,000 tons
Mannesman Tubes ¾" to 7")	25-30,000 tons

A permanent stock of about 20,000 tons of raw and semi-manufactured material and another 20,000 tons of steel billets for the tube factory are required to ensure

STEEL WORKS AND ENGINEERING CONCERNS (contd)

an uninterrupted flow of production. These can be stored in the permanent warehouses, which cover an area of about 10,000 sq.m. and also in various subsidiary stores erected between the workshops covering a surface of about 40,000 sq.m.

B. MALAXA SHELL AND FUZE FACTORY AND FILLING PLANT AT TOMANUL VECHIU

This factory is situated about 1 Klm. N.W. towards the mountains from the above-named village (N.72, E.16 on sheet 3555 of GSGS 4417) on the road leading S.W. from BRASOV to ZARNESTI and is well concealed by wooded features.

The factory started originally as a loading station for the shells manufactured in the TITAN works. In 1944 the greater part of the machinery for the manufacture of shells and fuzes was transferred from the Bucarest factory to this new site. The whole establishment was conceived on a grandiose scale, extending over a surface of 220 hectares and comprising about 28,000 sq.m. of buildings, 7 Klm. of internal railway lines and 6 Klm. of asphalted roads. The factory is supplied with Methane gas.

Ammunition manufacture ceased in 1945 and a considerable part of the machinery has been moved back to the works at MALTA TITAN, near Bucharest. As far as shell filling is concerned the equipment is alleged to be in a complete state of disorganisation.

At present the factory is producing Axelson Oil well pumps with spares, and iron bedsteads for the U.S.S.R. rotary drill chains and tooljoints for the Roumanian Oil Industry and domestic utensils for the home market. Railway trucks are also being built and repaired. About 60% of the factory's total output is stated to be for Russia.

Number of workmen

During the war between 4,000 and 5,000 men were employed. In April, 1948 it was reliably reported that only 1,000 skilled, unskilled and clerical personnel were on the pay roll. Of these, skilled workers represented only a small part. The factory works an 8-hour shift.

Shell Shop

A small installation for the manufacture of shells is alleged still to exist - less a number of minor items which are missing, but could be procured if shell manufacture was to be restarted on a worth-while scale. The greatest difficulty would appear to be the recruiting of skilled personnel. The management have reported to the Roumanian War Office that it would take them 1-2 months from receipt of an order to restart manufacture.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Power Station

Until recently power was supplied by the ZARNESTI Cellulose Factory, but in December, 1947 an old Diesel electric generating plant of 600 H.P. was installed. A second - almost similar - plant was being erected in May 1948.

Raw Materials

The factory is dependent at present for the supply of its principal raw materials on the following concerns:-

RESITA - for constructional steel and railway waggon components.

MALAXA - BUCHAREST - for special steels, steel castings and tubes.

TITAN, NADRAG, CALAN - for sheet steel, steel bars (round, flat and square)

STEEL WORKS AND ENGINEERING CONCERNS (contd)

3. "TITAN, MADRAG, CALAN", S.A.R.

The second largest steel and engineering works in the country. The company was formed by the merger (in 1924) of 3 separate concerns, viz:-

(a) The former Hungarian owned "SOCIETE DES MINES ET UZINES DE CALAN (Roumanian Banat)

(b) The former Austrian owned Iron Company "MADRAG"

(c) The Metallurgical works "TITAN" of GALATZ.

In 1927, the GALATZ firm "Anglo Romana" was also absorbed.

MINES

This concern has its own iron ore mines at GHELAR and at TELIUC (18 klm from CALAN, connected by narrow gauge railway to the blast furnace) producing Limonite, Lidenite, Haematite, Magnetite and roasted Dolomite. Maximum production of 82,000 tons per annum was reached in 1943. Installed power 400 H.P.

TIMBER

The Company also owns extensive timber reserves and produced 375,000 cu.m. of firewood and 30,000 tons of charcoal in 1943, all of which was utilised in the blast furnaces.

A. CALAN PLANT (New name:"UZINA VICTORIA")

1 Blast furnace, 70 tons capacity per heat. Capacity 25,200 tons per annum if coke-fired; 22,000 tons if charcoal-fired. In 1943, actual production reached 24,100 tons. The furnace is in need of repair and will be overhauled in 1948 together with its Cowper blowers.

FOUNDRY

Capacity 10,000 tons per annum. Output in 1943 reached only 6,100 tons. Products: baths, radiators, boilers, mechanical presses, etc. Installed power: 400 H.P.

ENAMEL SHOP

Capacity 1,100 tons per annum. 1943 production reached 710 tons. Products, Sanitary ware.

POWER SUPPLY

600 H.P. Hydro-electric; 650 H.P. Thermo-electric.

B. FERDINAND PLANT (New name "UZINA OTELUL ROSU")

STEEL WORKS

4 Open hearth Siemens Martin furnaces, capacities 30; 20; 20; 25 tons per heat.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Production in 1943 - 60,000 tons
1944 - 34,000 "
1945 - 30,300 "
1946 - 28,300 "
1947 -(10 months)
29,248 tons

Small Foundry (Produces only for own factory use)

5 crucibles of 300 Kgr.each.

Cast iron roll foundry

Capacity 800 tons per annum. 1943 production was only 397 tons.

Rolling Mills

Two stand billet cogging mill. Capacity 60,000 tons. 1943 production 30,450 tons.

Thirteen stand rolling mill for sections, reinforcing rods, strip and wire rods. Annual capacity 50,000 tons. 1943 production - 23,024 tons

1 sheet rolling mill Maximum size of sheets 1,250 x 2,500 m/m and thickness 0.4 to 4.5 m/m

Annual capacity: 22,000 tons.
1943 production 15,850 tons.

1 cold rolling mill for flats

Annual capacity 6,500 tons, working 3 shifts
1943 production: 2,300 tons.

1 plant for producing galvanised sheets, corrugated sheets and terne plates. Annual capacity, 10,000 tons. 1943 production 3,711 tons.

Nail and Wire Shop Produces also barbed wire. Annual capacity (working 3 shifts) 1,000 tons. 1943 production 434 tons.

Refractory Brick Works Produces only for own requirements. Annual capacity 5,000 tons (working 3 shifts); 1943 production 1,780 tons.

Power Supply Installed power: 7,670 H.P.

C. NADRAG PLANT (New name: "UZINA CIOCANUL")

ROLLING MILLS

1 four stage fine sheet mill. Thickness from 0.2 to 1.0 m/m. Annual capacity 15,000 tons. 1943 production 9,562 tons.

1 galvanizing plant Annual capacity 10,000 tons. 1943 Production: 3,265 tons.

Workshops producing stoves, kitchen ranges, galvanized iron buckets, etc.etc. Annual capacity 3,600 tons. 1943 production 1,550 tons.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Complete installation for producing tin plates

This was moved from the Titan Works at CALATZ to MADRAS and started production in July 1944. Annual capacity 5,000 tons. 1943 production 1,136 tons.

Power Supply

The installed power at FERDINAND and MADRAS combined is:

Hydro-electric 5,298 Kw.
Thermo-electric 1,555 Kw.
Hydro-mechanic 530 H.P.

D. TITAN WORKS at CALATZ (New name: "UZINA CRISTEA NICULAE")

1 Sheet rolling mill

Annual capacity : 15,000 tons.

1935 production (highest reached) 8,124 tons

1943 Production 7,020 tons

1 Galvanizing Plant

Annual capacity 10,000 tons.

1935 production (highest reached) 8,124 tons

1943 production Nil

Power Supply 1,160 H.P. (another report dated 1948 quotes 1,340 H.P.)

No. of workmen in 1948 330.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(4) "ASTRA" Prima Fabrica Romana de Vagoane si Motoare S.A.

New name: UZINA STEAGUL ROSU.

This Company had its works originally at ARAD, Calea Aurel Vlaicu, and was occupied almost entirely with the manufacture of rolling stock (excl. locomotives). Due to its precarious strategical location (very near the Hungarian frontier) the Roumanian Government brought pressure to bear on the Company in the early thirties for the transfer of the plant into the interior of the country. BRASOV was selected. When the building of modern workshops there (Strada MONTRUS,5) was almost completed, it was decided that the Armaments Industry - located chiefly at RESITA in the BANAT - was also highly vulnerable. Preference was given to the removal of the RESITA Armament Section. The RESITA Company acquired from the ASTRA the new BRASOV buildings. In these, modern artillery, ammunition and gun plants were installed. The original works at ARAD were maintained for the manufacture and repair of rolling stock only.

Just prior to the War, ASTRA-BRASOV built 75 mm. Vickers Armstrong A.A. guns under licence, as also Anti-tank machine guns of German design, chiefly the 37 m/m model, and manufactured artillery ammunition of all calibres up to 150 m/m (6 inch) in use in the Roumanian Army. The gun barrel forgings were supplied by RESITA.

The ASTRA Works at ARAD were badly damaged during the War. By 1946 they had been 80% repaired.

Since the capitulation of Germany, all activity in the Armament field, both at RESITA and also at the ASTRA works in BRASOV, has ceased. The ARAD shops are occupied exclusively with the conversion of normal gauge rolling stock to Russian gauge and the manufacture of an order for 4,000 trucks and tank waggons for Russia on reparations account, of which only 820 Tank waggons and 117 four axle Russian type coaches were completed in 1946. ASTRA ARAD also repaired 500 goods trucks for account of the Roumanian Railways.

The works also turned out pumps and other machinery for the Soviet petroleum industry, on reparations account. 1,200 men are stated to be employed on this latter type of product.

The ASTRA Company jointly with the RESITA Company also owns an extensive plant at ORASTIE which before and during the war was exclusively engaged on shell and fuze filling. It is now being transformed so as to turn out chemical and pharmaceutical products. (See also under RESITA).

During the war the share capital of ASTRA was increased, all new shares being allocated to the Government. The latter, in consequence now hold 60%, RESITA 35% whereas 5% are in the possession of numerous small shareholders.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Production figures

During the period 1.1.45. to 1.1.48, the Company delivered 98% of its total output to the U.S.S.R. as follows:-

731	four axle Railway Tank cars
486	" " " Goods trucks
400	Axelson type oil well pumps
5	tons spare parts for above
40	tons spare parts for locomotives
100	tons spare parts for railway trucks.

New orders

According to the Plan for the 5th "Armistice Year" (Sept.1948 - Aug.1949) the ASTRA is to manufacture - on reparations account - for the U.S.S.R. 550 Russian railway waggons (types not specified).

Resumption of Artillery Ammunition production

It is reliably reported that the BRASOV Works which still have intact their modern ammunition shop capable of producing shells up to 150 m/m (6 inch) would require six months for tooling up and restarting production.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(5) INDUSTRIA METALURGICA AL STATULUI (I.M.S.)

formerly known as:-

UZINELE DE FIER DIN HUNEDOARA (U.F.H.)

These important State-owned works are situated near HUNEDOARA in Transylvania.

Iron Ore Mines

The concern owns about 70% of Roumania's total iron ore reserves. The principal mine is situated at

GHELAR Visible reserves 2,500,000 tons. Principally siderite (38% Fe; 2.5% Mn; 1% S) Annual production about 110,000 tons.

There are two ore roasting installations of the "Gjers" type installed in 1933 at HUNEDOARA with a capacity of 9,000 tons per month.

Other Iron ore mines owned by the Company:-

VALEA DOBRII (Siderite as above) Reserves 1,000,000 tons.

ALUN (small reserve) Limonite (45% Fe; 2% Mn; 0.5% S)

VALEA FERULUI (probable reserves 1,000,000 tons) Magnetite (55% Fe; 0.24% Mn; 0.1% S)

POLNI (small) Haematite

SALCIU (small) Limonite

RIZETE (probable reserves 1,000,000 tons) Siderite

HERCULIAN (small) Limonite

RACOSUL DE JOS (small) Haematite

Iron Smelting Works - HUNEDOARA

3 Blast Furnaces. Cap.80 tons per 24 hours.

1 Blast Furnace " 150 " " " "

The brickwork of Furnace No.1 is dismantled (beginning 1948)

No.2 is to be stopped for overhaul in July 1948.

No.3 is to be restarted (no date given)

No.4 is to be restarted during 1948, but as it is of old design and the refractory material has been exposed to weather for many years, results are not expected to be very satisfactory.

No.5 is too old for smelting purposes and is to serve for ore roasting or as a lime kiln. Alternatively it will be demolished.

STEEL WORKS AND ENGINEERING CONCERNS (contd).

Total theoretical annual capacity is 140,000 tons, but actual output in 1943 amounted only to 42,562 tons.

Steel Works

4 Siemens Martin Furnaces installed by "Gute Hoffnungshütte" in 1941.

Capacity 25 tons per heat.

1 Mixer of 300 tons capacity.

Designed capacity 95,000 tons per annum (i.e.95 m^2 of hearth x 1,000 tons m^2 per year)

Production in 1943 amounted to 41,777 tons ingots; In 1946 it was down to 15,520 tons.

2 Electric Furnaces of which

1 of 1 ton charge and
1 of 5 ton charge supplied by Brown Boveri in 1944.
Production figures not available.

Steel Foundry

Foundry for special and alloy steel (electric) castings. Annual capacity 2,000 tons.

Oxygen Factory

1 Complete installation capable of producing 5,000 m^3 oxygen per month.

Rolling Mills

1 "Duo" reversible cogging mill 800 x 800 x 900 m/m supplied by SCHLOEMANN.

Designed capacity 100,000 tons per annum of square billets from 65 to 150 m/m and round billets from 60 to 140 m/m diam.

Production in 1942 was 24,423 tons and in 1946 had sunk to 11,512.

Forge

1x250 Kgr. steam hammer

2 x 500 Kgr. steam hammers (installed 1925)

1 x 400 Kgr. pneumatic hammer

1 x 650 ton forging press

1 Toggle press.

Output in 1943 amounted only to 266 tons.

Highest output (480 tons) was attained in 1942.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Machine Shop

No details as to equipment available other than that it contained 67 machine tools of various types installed in 1935.

Capacity 2,000 tons per annum. Output in 1943 amounted only to 793 tons.

The Works are also capable of manufacturing bridging material and oil reservoirs in their structural shop.

Cast Iron Pipe Shop

2 furnaces of 3 tons
2 " " 1.5 tons
1 " " 0.5 "

Mechanical installation for casting 50-1,000 m/m pipes. Designed capacity 2,400 tons. Actual production in 1943 - 1,090 tons.

Iron Foundry

Apart from pipes the foundry has also capacity for the production of 3,000 tons of iron castings. Production in 1943 was 2,570 tons.

Power Supply

2 Turbo-generators of 1,720 KVA supplied by LANG-GANZ.

1 Turbo-generator of 9,375 KVA supplied in 1941 by G.H.H. - A.E.G.

5 "TISCHBEIN" Boilers, 6 atm. - 150 m^2.

3 "Babcock & Wilcox" Boilers, 12 Atm. - 370 m^2

3 "Esslingen" Boilers 32 Atm. - 325 m^2

Another report states that total generating capacity was 25,000 H.P.

Agricultural Machinery Factory situated at GAVOJDIA

2 "Francis" Turbines 400 H.P.

3 Hydraulic hammers for agricultural implements

4 Electric hammers

1 100 ton press.

Annual capacity 1,800 tons (working 3 shifts); output in first six months of 1944 was 514 tons.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Forest Exploitations

The concern owns forests at the following places, which are being partly exploited:-

POENI, CAMPUL LUI NEAG	SEVERIN District
POIANA RECHITELE, RUNC, GRADISTEA	HUNEDOARA District
CAUNENI	VALCEA District.

Charcoal production:- Up to 1,200 tons per month.

Refractory Material Factory

Annual capacity for dolomite bricks stated to be 3,000 tons.

Tile Factory

Annual capacity 3 million tiles.

Quarries

Limestone and road stone.

Annual capacity 40,000 cu.m.

Personnel No figures available as to number of men employed.

STEEL WORKS AND ENGINEERING CONCERNS

(6) INTREPRINDERILE METALURGICE DUNARENE, S.A.R.

Location: BRAILA (I.M.D.)

Rolling Mill

2 Rolling mills for production of reinforcing rods, rounds, flats and wire.

Supplied in 1930 by DEMAG (Germany)

Maximum capacity 48,000 tons per annum.

Actual production in 1943 - 12,915 tons.

Wire, Nails, Screws and Chain Factory

136 machines for wire drawing and chain manufacture (manufactured in Roumania between 1924 and 1933)

19 heading machines (one automatic of German manufacture; 18 hand operated made by the establishment. Installed 1931)

106 machines for nail manufacture supplied in 1921 by Messrs. MALMEDIE, HAUSER, KAISER.

4 machines for manufacture of barbed wire. (1 supplied by KAISERLING, Germany, 3 manufactured in Roumania) Installed 1925/40.

85 machines for manufacture of rivets, supplied by WEINGARTER, KIRSCHER, HASECAVER. Installed 1930/35

62 machines for manufacture of chains, supplied by MALMEDIE and VAFIOS. Installed 1926/35.

1 installation for galvanising wire. Supplied by G. DENTZ & Co. of Vienna in 1930.

1 Press for lead pipe production Supplied by G. ECKHACK & Co. of Vienna in 1929.

Capacities and Production

Nails and wire:	Capacity 16,200 tons per annum Output in 1938 - 7,271 tons " " 1943 - 3,927 "
Barbed wire	Capacity 3,600 tons per annum. Output in 1940 - 665 tons " " 1943 - 55 tons
Rivets and screws	Capacity. 2,688 tons per annum. Output in 1943 - 758 tons
Chains	Capacity: 1920 tons per annum. Output in 1943 - 820 tons.

Power Supply

Rolling Mill - 1,560 H.P.

Wire nails, screws and chain factory - 1,120 H.P.
Number of workmen: 1,000.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Imports of Raw Material

Billets were imported from Germany.

Requirements for capacity production: 50,400 tons.

Imports in 1938	23,042	tons
1939	16,966	"
1940	8,340	"
1941	11,540	"
1942	14,232	"
1943	13,450	"
1944	5,427	"

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(7) INDUSTRIA FIERULUI S.A.R.

Works situated in Strada Sutasului No.24, Bucharest

Head office: Strada Academici No.35-37

1 Rolling Mill (one stage for roughing and seven for finishing).

Supplied in 1928 by Thyssen from Germany.

Produces reinforcing rods from 6.5 to 25 m/m diam.

Maximum capacity 15,000 tons per annum.

Actual production:

1938	7,327	tons
1939	9,918	"
1940	4,277	"
1941	2,364	"
1942	3,110	"
1943	5,743	"
1944	1,817	" (ten months)

Formerly Billets were imported (partly from Germany)

1 Sheet rolling mill (three stages, 1450 m/m x 700 m/m)

Supplied in 1928 by SCHLEIFENBAUM & STEINITZ, Germany

Rolls chiefly lead.

Maximum capacity, 4,000 tons.

Actual production in 1944 - 52 tons.

Power Supply

Steam engine (no details available)

The two rolling mills cannot run simultaneously as power is not sufficient.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(8) NOUA SOCIETATE A ATELIERELOR "VULCAN"

Fabrica de Masini Vagoane S.A.

Head Office: Strada Vulcan 40, Bucarest.

Works: DEALUL SPIREI (Suburb of Bucarest)

This concern owns:-

Mechanical workshops

Boiler makers shop

Small Iron and Steel Foundries.

Metallic drums and barrel shop

Mechanised wood working shop

Assembly shop

Rivet shop.

Production:

Maximum annual production capacities are stated to be:

Boilers (including repairs)	1,800	tons
Oil reservoirs (incl.repairs)	600	"
Transmission shafting	10	"
Flour Mill installations	200	"
Lifts and hoists	300	"
Steam rollers	900	"
Bridge and metal construction	7,000	"
Iron and steel castings	3,500	"
Columns for oil refineries	800	"
Central heating installations	100	"
Oil drums and barrels	10,000	"
Tanks for tank waggons	300	"
Oil burners and injectors "Vulcan" type		
Peasant carts	200	"
Rivets	100	"

Power Supply

Installed power: 2,180 H.P.

No.of Workmen 2,400; Office staff: 370

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(9) CONCORDIA S.A.R.

Metallurgical Works, PLOESTI.

Address: Strada Regina Maria 146, Ploesti

These works are a subsidiary of the CONCORDIA OIL Company in which Belgian Capital("PETROFINA") participated During the German occupation, the Belgians sold - under duress - their shareholding to the Germans. As a result of this the Russians, who considered these shares to be war booty, now hold 51% of the share capital. This matter is at present stated to be under litigation. Share capital in 1938 of the whole combine comprising:-

(a) Oil Department
(b) Electrical Department
(c) Metallurgical Works
(d) Mining Department

was just over 1 Milliard Lei.

Invested capital nearly 4.5 Milliard Lei.

The Metallurgical Works are subdivided into:-

Steel Plant
Iron Foundry
Bronze foundry
Brass foundry.

The Steel Plant has 2 Heroult Electric furnaces, one of 3,000 Kg. the other of 5,000 Kg. capacity. Monthly output 150 tons of steel castings or about 200 - 300 tons of billets.

The Iron Foundry specialising in high grade castings (cylinders, etc.) has a monthly capacity of 250 tons.

The Bronze Foundry has electric induction furnaces (number not known)

The Brass Foundry has electric induction furnace capable of producing 10 tons of brass per day and can utilise either scrap or copper and zinc.

A 2,000 ton press is used in transforming the billets into extrusions and tubes, the output being sufficient to satisfy local market requirements.

Forge

In 1938 a forge was in process of erection with an 800 ton press and 2½ ton steam hammer.

A section for the production of high speed tool steels was also contemplated.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Products

Oil well material of all sorts including Rotary outfits, steel constructions, e.g. hangars, bridges, pylons, reservoirs, steam rollers, 2 cylinder Diesel engines, railway material, YARROW boilers for Danube Monitors, pontoons for military bridges, industrial boilers up to 175 atm. pressure (Walther system).

Concordia has also capacity for the manufacture of non-ferrous metal products as follows:-

Extruded copper rods - 240 tons per annum.

Copper tubes and hollow extrusions - 300 tons per annum.

Brass rods - 600 tons per annum.

Brass tubes - 60 tons per annum.

No tubes under 20 m/m diam. can be produced.

ARMAMENTS

During the war 37 and 47 m/m A.Tank Guns were manufactured as well as shells and cartridge cases. The annual capacity for artillery cases is stated to be 200,000 of an average calibre of 75 m/m (3 inch) when working three 8-hour shifts.

It has been reliably reported that no armaments of any description were being manufactured at the beginning of 1948.

Labour

The Metallurgical and Engineering Works employed 4,000 hands in 1940. In 1946 this number had been reduced to 1,500 and 200 office staff.

Installed Power: 8,160 H.P.

Surface of Workshops: 50,000 sq.metres

Further information required.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(10) UZINELE METALURGICA "LEMAITRE"

(figures refer to 1938)

Address: SPLAIUL UNIRII 165-171, Bucarest V.

Capital: 65 million Lei

Invested capital: 113.5 Million Lei.

Chief products: Boilers, reservoirs, bridges and other structural steelwork, castings, tank cars, textile machinery.

Repair of locomotives and railway trucks.

Armament manufacture:

During the war, turned out shells of 75 and 105 m/m calibre. Quantity not known.

Capacity: 5,800 tons per annum.

Number of Workmen: 614. Office staff: 45.

Covered surface of workshops: 16,370 sq.m.

Installed power: 1,150 H.P.

Further details wanted on capacity of shell shops.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(11) E.WOLFF, S.A.R.

(Now name: "UZINA STEAUA ROSIE".)

(All figures refer to 1938)

Address: Strada Dr.ISTRATI, 7, Bucarest - Filaret.

Capital: 30 Million Lei

Invested Capital: 97 Million Lei

Chief products: Oil refinery equipment; cracking columns, structural steelwork, oil reservoirs, up to 10,000 tons capacity; boilers (high and low pressure) bridges, oil injectors, winches, transmission shafting.

Power Consumption: 600,000 Kwh.

Capacity: 3,385 tons per annum.

Number of workmen: 800;office staff, 45.

The firm has a subsidiary establishment in CONSTANTA at SOSEAUA MANGALIA 50. This was primarily concerned with building oil reservoirs; now inactive.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(12) FABRICA DE MASINI DUMITRU VOINEA

(New name: "UZINA VASILE ROATA")

Address: Calea Mosilor 25, Bucarest.

Subsidiary at BRASOV - Drumul Zizinului.

The factory at Bucarest produced BRANDT 60 and 81 m/m mortars.

Peacetime production comprised:-

In Bucarest: Complete flour mill equipment
Woodworking machines
Iron and bronze foundry
Metallic structures, bridges, etc.
Repairs of rolling stock including locos.

In Brasov: Nuts, bolts, screws, rivets.
Repair of rolling stock, incl. tank waggons.

Timber yard with 2 saw mills

Installed power: 2350 H.P.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(13) INTREPRINDEREA EMIL COSTINESCU S.A. SINAIA

(New Name: UZINELE I.C.FRIMU)

Founded in 1880 primarily as a saw mill and timber exploitation enterprise to which was added in 1889 a factory for the production of rivets, nails, screws, bolts and nuts. In 1898 lime kilns with a total output of 40 tons per day were started, the raw material being brought to the factory site by a 4 Km.long aerial ropeway.

In 1938 a shell shop was installed, which was equipped chiefly for the manufacture of 100 m/m Skoda shells.

Output Capacity of nuts, bolts, screws, etc. 15,200 tons.

Capacity of shells unknown.

Installed power: 920 H.P.

Number of Workmen employed in 1938 - 600; office staff 48

Share capital: In 1938 - 50 million Lei - all held by the COSTINESCU family.

Further inf. on Shell shop wanted.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

(14) VARIOUS OTHER ENGINEERING FIRMS on which further details are required:-

Name of Firm	Location	Remarks
CABLUL ROMANESC S.A.R. (formerly ANGLIA	Ploesti	Founded by British subject. 12 wire rope machines 115 workmen 350 H.P. Cap. 6500 t.p.a.
FABRICILE de MASINI AND. RIEGER S.A. New name: "FABRICA INDEPENDENTA"	Sibiu	Principal products: agricultural and flour milling machinery. Cast iron tubes. Railway Rolling Stock repairs. 600 workmen 100 office staff.
FRATII SCHIEL S.A.R. New name: "UZINA STRUNGUL"	Works at BRASOV	General engineering works. Iron castings up to 15 tons. Steel castings up to 4 cons. Repairs of locos and railway waggons and trucks.
I.M.S. MARGINEANCA New name: "UZINA ILIE PINTILIE"	Vornicu-Margineanu 26 Klm from Ploesti on the TIRGOVISTE road	Produced ammunition (State owned). Could restart manufacture within 2 months from receipt of order.
INDUSTRIA OPTICA ROMANA	Bucarest	Optical instruments including gun sights, telemeters, searchlights.
INDUSTRIA ROMANA MECANICA SI CHIMICA S.A.	Bucarest	Produces tools, automobile spare parts and components of armament materials
INDUSTRIA SARMEI S.A. (See also page 68)	Factories at Campia-Turzii	Produces reinforcing rods steel wire, springs, welding, electrodes, insulated wire and cables.
	Braila	Reinforcing rods and wire.
M.CAZUL S.A.	Ploesti	Points, switches and other railway materials. Capacity: 4,000 t.p.a. 380 H.P. 300 workmen 60 different types of machines.
PIROTECHNIA ARMATEI	Cotroceni Suburb of Bucarest	Produced S.A.A. and fuzes also filled and assembled shells. Destroyed by bombardment; now reconditioned and said to be about to restart production.

STEEL WORKS AND ENGINEERING CONCERNS (contd)

Name of Firm	Location	Remarks
REGIA METALURGICA BRAILA S.A. (State Owned) amalgamated with SOCIETATEA FRANCO-ROMANA de MATERIAL de DRUM de FIER S.A. New name: "UZINA PROGRESUL"	Works at BRAILITZA	Originally a private concern founded in co-operation with French capital for the manufacture and repair of railway rolling stock. Subsequently concentrated on arms and tank manufacture.
SCHRAMM,HUTTL & SCHMIDT New name: "FABRICA MAGHERU"	Toplitza	Agricultural machines Looms for textile mills. Rolls for rolling mills. Hydro-electric power plantP 3 turbines, totalling 750 H.P. 650 workmen.
UZINELE METALURGICE din COPSA MICA si CUCIR	Works at Cugir	Brenn guns were being manufactured under technical supervision of ZBROJOVKA of BRNO, who were financially interested. Present products not known.

(15) AIRCRAFT FACTORIES on which further information is required:

I.A.R. (I.M.S.) New name: "TRACTORUL"	Works at BRASOV	Manufactured aircraft and motors to French and Polish licences. Now manufactures agricultural tractors. In August 1948 exhibited prototype of a motorcar which is to be manufactured in series at a future (unspecified) date.
ICAR	Bucarest	Manufactured light aircraft and parachutes. Now said to be producing household utensils.
INA (INDUSTRIA NATIONALA AERONAUTICA) formerly S.E.T.	Bucarest	Manufactured light aircraft under licence. Now said to be restarting manufacture of fuselages.

XI. SHIPBUILDING

(a) "SANTIERELE NAVALE GALAT" situated in Str. SALUPEI 23, GALATZ (Soc.pe actiuni de Navigatie SOVIETO-ROMANO).

Number of workmen employed (1948) 2,333

Installed power 1,380 H.P.

Total surface of yard, completely modernised in 1937. 337,500 m2

Building and repairing tugs and barges, chiefly for navigation on the Danube.

(b) "SANTIERUL NAVAL NEPTUN"

Strada Navelor 34, Galatz.

Number of workmen employed (1948) 120

Installed Power 168 H.P.

(c) "VIITORUL" Shipyard at BRAILA

(d) "ING.E.CERCHEZ" " " "

(e) "I.R.N. " " "

(f) "DANUBIUL" " " "

(g) "METINAV" " " "
(IZVANDA)

(h) "ROMANIA" " " "

(i) "DINAMICA" " " TURNU-SEVERIN

(j) "S.A.R.E.A.T." " " CITENITZA

(k) The "FRANCO-ROMANA Shipyard at BRAILA in July 1948 completed the construction of sloop MM 104, the fifth launched by this concern. It has an 85 H.P. engine.

No details available on Nos. (c) to (k).

XII. ELECTRICAL INDUSTRY

(1) UZINELE de FIER SI DOMENIILE DIN RESITA

See Page 31, para (r)

(2) [illegible], Bucarest

New name: FABRICA de MOTOARE "ROSA LUXEMBURG"

No details available.

(3) TUDOR [illegible] Bucarest — Manufactures all types of accumulators and batteries. Details required.

New name: FABRICA de ACUMULATORI "PROGRESUL"

(4) STANDARD Bucarest — Affiliated to the I.T.T. of New York. Manufactures all types of Telephone equipment.

New name: FABRICA de TELEFOANE "VESTITORUL"

XIII. NON-FERROUS METAL INDUSTRIES

(a) METROM PRIMA FABRICA METALURGICA ROMANA, BRASOV

The factory which was founded in the late 1920s with a 20% Czech participation, has modern equipment for the manufacture of all kinds of semi-manufactured goods of non-ferrous metals, specially copper, brass, zinc and aluminium. In 1946 a non-ferrous metal foundry was under construction.

The factory is equipped to turn out brass and aluminium sheet, strip, round, square and profile bars, extruded and drawn tubes of all shapes and wire from 2 to 6 m/m diam. Zinc sheet of 500 x 2,000 m/m in thicknesses from 1 to 5 m/m.

Personnel

The factory employs 1,000 workmen (of whom 200 are qualified and 800 unskilled labourers), plus 300 office personnel.

Raw Materials

Refined copper is supplied by "FAROLA". Other raw materials are partly imported from Russia and Czechoslovakia.

Capacity

Maximum designed capacity (all sections working simultaneously in three 8-hour shifts) is as follows:-

Copper strip	120	tons	per	annum
" rods	240	"	"	"
" tubes and hollow extrusions	240	"	"	"
Brass strip	300	"	"	"
" rods	1,800	"	"	"
" tubes	120	"	"	"
" cups for cartridge cases	2,500	"	"	"
Artillery cartridge cases of 75 m/m calibre	720,000	"	"	"

In January 1946 output was reported to amount to 110 tons which was stated to be 55% of present capacity. Of this, 80 tons were coin blanks and 30 tons aluminium pots and pans.

XIII. NON-FERROUS METAL INDUSTRIES (contd)

(b) LAROMET ROLLING AND DRAWING MILLS, BUCAREST

New name: "UZINELE LAMINORUL"

Maximum designed annual capacity when working three 8-hour shifts, fully staffed, is:-

Copper sheets and strip	240	tons
" rods	240	"
" tubes and hollow extrusions	360	"
Wire	500	"
Flat copper fire box plates	600	"
Formed Copper fire box plates	150	"
Brass sheet and strip	240	"
Brass rods	2,400	"
Brass tubes	180	"
Brass wire	60	"
Zinc sheet	720	"
Brass cups for S.A.ammo	600	"

NON-FERROUS METAL INDUSTRIES (contd)

(c) FAROLA Refining, rolling and drawing mills, BRASOV

Maximum designed annual capacity, working three 8-hour shifts fully staffed:-

Copper sheets and strip	300	tons
Copper rods	120	"
Copper wire	300	"
Flat copper fire box plates	500	"
Brass sheet and strip	120	"
Brass rods	500	"
Brass wire	60	"
Zinc sheets	120	"

NON-FERROUS METAL INDUSTRIES (contd)

(d) INDUSTRIA SARMEI (Wire Industry) CAMPIA TURZII, Transylvania.

This factory which manufactures non-ferrous material as a by-product only, is capable, when working three 8-hour shifts of producing annually the following:-

Copper rods	100 tons
Copper wire	500 tons
Brass wire	60 tons

The factory is equipped for the production of insulated wire.

(e) CONCORDIA, Ploesti

For details see Page 55.

(f) SOLEX, BUCAREST

Chief product, anti-friction metals

(g) INDUSTRIA PLUMBULUI, Bucarest

Lead pipe and other products. Roumania produces sufficient lead (chiefly at BAIA MARE) to satisfy all home requirements.

XIV. CEMENT INDUSTRY

The Rumanian Cement Industry comprises the following eight main plants: (the factories at PUTNA-LADAUTI and COZLA-VALEA, District of MEHEDINTI, ceased all activity several years ago).

(1) TURDA (Transylvania)

4 kilns supplied by F.L.Smidth of Copenhagen of which 2 are 2.7/3.7 m. diam. 42 m. long, production 150 tons per 24 hours.

2 of 2.7/3 m. diam. 32.5 m. long, production 100 tons per 24 hours.

Power Station

2 Turbo-generators by MOLNER-BRUN of 2,000 Kw each
1 Turbo-generator by BROWN-BOVERI of 5,000 Kw

Total : 9,000 Kw.

Fuel used

Natural methane gas from nearby methane gas field.

(2) "DALGHITA" at MEDIA

3 Kilns as follows:-

1 "POLYSIUS" of 2.3/2.8 m. diam, 96 m. long, prod.150 tons per 24 hours.

1 " of 2.3/3 m. diam, 68 m. long, prod.200 tons per 24 hours.

1 KRUPP 72 m. long; prod. 350 tons per 24 hours.

Power Station

1 Turbo-generator by Brown Boveri: 1,200 Kw.
1 Turbo-generator by Brown Boveri: 1,650 Kw.
1 Hydro-generator by VOITH 1,200 Kw.
TOTAL 4,050 Kw.

Fuel used

Oil well gases and fuel oil.

(3) BRASOV

2 Kilns "LEPOL" 48 m. long prod.250 tons per 24 hours
310 " " " "

Power derived from the BRASOV town power station which burns natural methane gas.

CEMENT INDUSTRY (contd)

(4) CERNAVODA

3 Kilns as follows:-

1 "H.G" 2.5 m. diam. 45 m. long. Prod.130 tons per 24 hours.

1 " 3.5 m. diam 45 m. long " 160 tons per 24 hours.

1 "UNIX" 3.7/2.4 m. (Sic) diam. 82 m. long." 240 tons per 24 hours.

Power Station

6 Diesel engines. Total 2,980 H.P.

Maker's name not known.

Fuel: Oil fuel.

(5) BRAILA

2 Kilns as follows:-

1 "LEPOL" 2.7/3.2 m. diam. 32 m. long.
Prod.260 tons per 24 hours.

1 "FELLNER & ZIEGLER" 2.5 m. diam. 60 m. long.
Prod.150 tons per 24 hours.

Power Station

5 Diesel engines (maker's name unknown) 3,750 H.P.

Fuel: Oil fuel.

(6) "TITAN", Bucharest

2 Kilns as follows:-

1 "POLYSIUS" 2/2.5 m. diam; 48 m. long.
Prod.100 tons per 24 hours.

1 "LEPOL" 3 m. diam. 30 m. long.
Prod.260 tons per 24 hours.

Power Stations

2 Diesel engines	1,500 H.P.
	80 H.P.
2 Steam engines	900 H.P.
	300 H.P.
TOTAL	2,780 H.P.

Fuel used: Diesel and fuel oils.

This factory was not working in 1945 owing to lack of raw material.

CEMENT INDUSTRY (contd)

(7) COMARNIC

2 "MIAG" kilns 2.3 m. diam. 55 m. long.
Prod.180 tons per 24 hours.

Power Station

2 Diesel engines (Maker's name not known)	1,050 H.P.
1 Steam engine	200 H.P.
TOTAL	1,250 H.P.

Fuel: Diesel and Fuel Oils

(8) AZUGA

1 "POLYSIUS" kiln 2/2.7 m. diam. 50 m. long.
Prod.100 tons per 24 hours.

Power Station

Power supplied by "ELECTRICA" Power Station in CAMPINA.

This factory stopped production in 1945 as it was not capable of earning a profit owing to the controlled price imposed by the Government.

CAPACITY OF INDUSTRY

Theoretical maximum annual capacity of the eight factories mentioned below is approx. 800,000 tons. The real capacity however is nearer 500,000 tons sub-divided as follows:-

	Tons	
	Theoretical	Actual
TURDA	130,000	90,000
"DAMBOVITA" Fieni	140,000	80,000
BRASOV	140,000	80,000
CERNAVODA	110,000	76,000
BRAILA	95,000	64,000
"TITAN" Bucarest	80,000	60,000
COMARNIC	45,000	30,000
AZUGA	30,000	20,000

CEMENT INDUSTRY (contd)

PRODUCTION

The 1943 target is 540,000 tons. In 1940 this is to be stepped up to 650,000 tons. Export trade is to be intensified. Shipments to the Argentine were expected to start in July 1940.

Types of Cement produced

(i) Normal Portland Cement

(ii) Quick setting cement

(iii) White Cement

(iv) Special Cement for oil wells "ULTRA A" and "ULTRA St."

Internal Consumption

This varied as follows:-

1935	- 362,240	tons	
1936	- 387,000	"	
1937	- 456,360	"	) Increase of consumption
1938	- 559,720	"	) caused by building of
1939	- 506,120	"	) fortifications and of
1940	- 425,000	"	) highroads.
1941	- 387,350	"	
1942	- 356,780	"	
1943	- 493,950	"	1,500 tons exported to Turkey
1944	- 333,080	"	Decrease caused by lack of railway waggons.

Normal internal consumption for Roumania's post-war reduced size is estimated to be roughly 300,000 to 350,000 tons. Should the road construction programme be resumed, this amount will be materially exceeded.

XV. GLASS INDUSTRY

The following are the most important factories producing sheet glass:-

(1) FABRICA DE STICLA CU GAZ UTAN (VITROTEX) MEDIAS

5 "FOURCAULD" machines. Annual production of sheet glass 2,000,000 sq. m.

Number of workmen: 600

Installed power: 730 H.P.

(2) FABRICA DE STICLA MODELE.. DICIOSANMARTIN

4 "FOURCAULD" machines. Annual production of sheet glass 2,000,000 sq. m. Production includes hollow-ware and glass wool: 6,000,000 kgs.

Number of workmen: 400

Installed power: 430 H.P.

(3) INDUSTRIA ROMANA DE GEAMURI. SCAENI

3 "FOURCAULD" machines

Annual production of sheet glass 1,000,000 sq.m.

(4) TURDA S.A. TURDA

Number of workmen: 1,200

Installed power: 526 H.P.

Produces also hollow-ware. Total output of sheet glass and hollow-ware: 10 Million Kgr.

The following nine factories of minor importance manufacture also bottles, besides window glass, but no precise data is available:

(a) PRIMA FABR. de STICLARIE, GEAMURI SI BECURI ELECTRICE Friedr. FISCHER. PUTNA

(b) FABRICA de STICLARIE at TURNESTI (Distr. SEVERIN)

(c) "CONDOR" Fabrica de STICLARIE at PLOESTI

(d) "GEAMUL ROMANESC" at PLOESTI

(e) "VITREA ROMANA" at RAMNICU (Distr. ROTOSANI)

(f) SOC. ROM. DE STICLARIE at AZUGA

(g) STEINBERG-LESNEZI-BAIA (Prima Fabrica de Sticlarie)

(h) "STICLARIA" at PENI

(i) FABRICA DE STICLARIE BUCURESTI S.A. in Bucarest

GLASS INDUSTRY (contd)

PRODUCTS

The products of the above factories comprise:-

Bottles of all types

Laboratory glass

Technical glass for accumulators, insulators, etc.

Lamp glass both blown and pressed.

Cut glass for ornamental purposes

Glass wool.

The sheet glass produced is from 2 to 7 m/m in thickness. The quality compares favourably with Czech or Belgian glass. No plate glass is being produced in Roumania.

RAW MATERIALS

The necessary sand for white bottles is obtained from VALENI de MUNTE; that for green bottles is generally found in the vicinity of the factories themselves.

Soda is supplied by the SOLVAY works at UIOARA.

Limestone comes from RACESUL de SUS.

FUEL

The factories mentioned under A.B. and D. use methane gas. Factory C. uses gas from the oil wells in the Prahova region.

CONSUMPTION

Internal consumption of sheet glass before the war was approximately 2,500,000 sq.m. per annum. There thus remain appreciable quantities available for export. In 1940 and 1941 about 1,200,000 sq.m. were exported annually to Turkey, Palestine, Syria and Lybia. Large quantities have recently gone to U.S.S.R. on reparations account.

XVI. TEXTILE INDUSTRY

There were 640 concerns employing 74,100 persons in the Roumanian textile industry in 1938. Production in 1938 was valued at Lei 14.7 milliard and the value of raw materials consumed was Lei 9.1 milliard. The cotton industry expanded considerably between 1938 and 1938. In the former year there were only 35,000 spindles and in the latter 340,000. In April 1948 there were approximately 800,000 spindles 22 spinning mills and 17,000 looms in operation. The number of wool spindles increased fourfold and 90% of Roumania's wool yarn requirements were covered by her own spinning mills. In 1937 there were 4,200 looms in the wool industry; in the silk and rayon industry 1,900 and in the cotton and linen industries 14,000.

(1) COTTON SPINNING MILLS

The following 18 spinning mills operating approx.290,000 spindles, are the most important:

	NAME OF CONCERN	LOCATION	THOUSANDS OF SPINDLES	ORIGIN OF CAPITAL
(a)	INDUSTRIA de BUMBAC S.A.	Bucarest	20	Roumanian
(b)	FILATURA ROMANEASCA de BUMBAC S.A.(FRB)	"	50	Italian
(c)	DACIA,S.A.	"	12	"
(d)	BUMBACARIA ROMANEASCA S.A.	Jilava	20	French
(e)	DAMBOVITA S.A.	Bucarest	20	Roumanian
(f)	NOUA FILATURA de BUMBAC S.A.	"	10	"
(g)	FILATURA Ing CASSASSOVICI (New name: FILATURA OLGA ANGELC)	"	20	"
(h)	CHILAJNA		3-5	"
(i)	ATLANTIC S.A. No.of Workmen 512 Installed Power 1,110 H.P.	Galatz	14	"
(j)	FUSUL S.A.(dismantled)	"	5-10	"
(k)	TEXTILA ROMANEASCA S.A.	Pitesti	10	"
(l)	VICTORIA S.A. (This mill was transferred from JASSY and has merged with No.(k)	"	3-5	
(m)	MEVA S.A.	Cisnadie	10	German
(n)	ROMITEX S.A.	Timisoara	15-20	Italian
(o)	ATLANTA S.A.	"	3-6	Roumanian and Italian
(p)	INDUSTRIA TEXTILA 1,600 workmen.	Arad	37	Roumanian

TEXTILE INDUSTRY (contd)

NAME OF CONCERN	LOCATION	THOUSANDS OF SPINDLES	ORIGIN OF CAPITAL
(q) TEA. S.A.	Arad	20	German
(r) INDUSTRIA ROM.de TESATURI IMPRIMATE (I.R.T.I.)	Medias	9	Swiss (also 400 looms)

Most of the above mills spin medium and coarse yarns (from 6-12 and 14-32); Fine yarns - from 50 upwards - can be produced only by the FILATURA ROMANEASCA (No.b. above). There are some other mills of minor importance, about which no data is available.

Raw material

Raw cotton growing was started in Roumania only comparatively recently (1930) and production in 1945 was estimated to vary between 2 and 3 million Kgr.(unginned). Great efforts are being made to stimulate cotton growing in spite of the climate which is not entirely suitable. Macedonian type cotton is the most successful. In 1948 about 47,000 hectares were under cotton cultivation.

At present Russia is the largest supplier of cotton to Roumania. Alternative sources are Turkey and Egypt. Before the war Roumania imported cotton in the following qualities:-

ZAGORA 70%

ABIAOUNI 20%

SAKELARIDIS 10%

Equipment

The majority of spinning machines are of German manufacture. A small number are of Italian origin. "ATLANTIC" of Galatz has swiss machines (Rüti)

Capacity

Taking into account approx.290,000 spindles, the capacity of the mills working 8 hour shifts would amount to about 10 million Kgr. This represents only about 50% of the yarn required to keep the cotton weaving mills fully employed on an 8 hour shift.

(2) COTTON WEAVING MILLS

In 1945 there were about 15,000 cotton looms in Roumania. Of these only about 8-9,000 are installed in the more important well-equipped mills, capable of intensive production.

The mean output of light material (weighing about 150 gr. per meter) is estimated to be about 30 m. per loom per 8 hour shift.

TEXTILE INDUSTRY (contd)

The principal weaving mills are:-

	Name of Concern	Location	No.of Looms
(1)	ANTON MURADIAN	Bucarest	122
(2)	"ATLANTICA"	Galatz	233
(3)	"FLANDRIA"	?	114
(4)	FRATII BRANESCU	?	169
(5)	"FUSUL"	Galatz	237
(6)	"IMPRIMTEXT"	Bucarest	100
(7)	INDUSTRIA DE BUMBAC S.A.	Bucarest	1,173 (See (a) Page 75)
(8)	IND.ROM.de TESATURI IMPRIMATE	?	266
(9)	INDUSTRIA TEXTILA	Lugoj	624 (600 workmen)
(10)	INDUSTRIA TEXTILA ARADANA	Arad	1,565 (See (p) Page 75)
(11)	A.IZVORANU	Bacau	126
(12)	"JANDERA"	Orsova	196
(13)	JEAN G.MARCU	Galatz	100
(14)	"LUPENI"	Bucarest	132
(15)	"MIOARA"	Bucarest	126
(16)	MOARA SI TESATORIA	Lugoj	150
(17)	PRIMA IND TEXTILA TIMISOREANA	Timisoara	104
(18)	"ROMITEX"	Timisoara	205
(19)	SOCIETATE PENTRU INDUSTRIA TEXTILA	Buhusi	423
(20)	"SOCIR"	Bucarest	144
(21)	STAN RIZESCU New name: TESATORIA IVANUS CONSTANTIN)	Branesti	800 (840 H.P. 2,000 workmen)
(22)	"TEBA"	Arad	428 (See (q) Page 76)
(23)	TESATORIA "DIMBOVITA"	Bucarest	425 (See (o) Page 75
(24)	TESATORIA ROMANA	Pitesti	517
(25)	TESATORIA ROMANEASCA	Jasi	744 (560 H.P. 840 workmen)

TEXTILE INDUSTRY (contd)

	Name of Concern	Location	No. of Looms
(26)	TESATORIA SI VOPSITORIA GALATEANA	Galatz	102
(27)	TESATORIA "TELEORMAN"	Rosiorii de Vede	161
(28)	TEXTILA "DELEA VECHE"	Bucarest	126
(29)	TEXTILA FRANCO-ROMANA	Bucarest	200 (Hemp)
(30)	TEXTILA ROMANEASCA	Bucarest	400 (500 Workmen) (See (k) Page 75)
(31)	"VICTORIA"	Jasi	116
(32)	WILHELM LOW	?	135

Apart from the above, there are another 118 mills with fewer than 100 looms each.

(3) SEWING THREAD MANUFACTURERS

	Name of Concern	Location	Remarks
(a)	BOSTONLIN SEWING THREAD FACTORY	Bucarest	
(b)	INDUSTRIA COCIRINI	Arad	Italian Capital (Fused with (d) in 1940
(c)	PROGRESS SWEING THREAD FACTORY	Timisoara	Doublers and manufacturers of multi-coloured yarns. Doubling spindles: 1,500 Yarns doubled sewing thread and dyed embroidery yarns. Output of Roumanian Industry:- 1947 - 111 tons sewing thread.
(d)	ROMNOFIR	Talmaciu	A subsidiary of Messrs.J.& P.COATES LTD. of Glasgow. 300 H.P. 300 workmen

(4) WOOL SPINNING AND WEAVING MILLS

The Roumanian Wool Industry has approximately 2,687 looms and approx. 140,096 spindles.
(Note: These figures, taken from a 1945 Roumanian document, differ materially from those contained in the 1943 edition of the M.E.W.Handbook)

TEXTILE INDUSTRY (contd)

The seven most important Wool Spinning and Weaving concerns are:-

	Name of Mill	Location	No.of Looms	No.of Spindles	Remarks
(a)	"DOROBANTUL"	Ploesti	150	3,640	Affiliated to No. (f)
(b)	GRUPA POSTAVARIILOR	Cisnadie	129	6,704	
(c)	INDUSTRIA LANEI	Timisoara	247	16,640	200 workmen
(d)	A.ISVORANU	Bacau	251	9,200	
(e)	NOUA FABRICA DE POSTAV	Azuga	150	4,400	Affiliated to No.(f)
(f)	SOC.PENTRU INDUSTRIA TEXTILA	Buhusi	976	20,851	7,980 H.P.of which 200 H.P. hydraulic 4,500 workmen
(g)	Wilhelm SCHERG & CO. New name: PARTIZANUL ROSU"	Brasov; Rasnova Darste	320	9,710	1,600 workmen

There are about 30 other mills of minor importance.

The following are the most important concerns which only spin wool:-

(a)	COMP.GEN.INDUSTRIA TEXTILA		10,100
(b)	COROM S.A.R.		6,400. 100 workers
(c)	FRATII I. & GH. PORNICHESCU		1,534
(d)	FRITZ HANN		800
(e)	TAUTE & CO.		2,000
(f)	TEXTILA PLOESTI	Ploesti	12,320

Raw Material

Roumania's wool production was as follows:-

1939	4,530,000 Kgr.
1940	3,142,000 "
1941	1,430,000 "
1942	5,842,000 "
1943	6,556,000 "
1944	3,738,000 "

TEXTILE INDUSTRY (contd)

(5) VIGOGNE (VICULA WOOL) SPINNERS

This article, which is important for the peasant population is produced from low-grade cotton and waste.

There are over 22,000 vigogne spindles in Roumania having a theoretical annual capacity of 2.5 to 3 Million Kgr.

The principal spinners are:-

	Name of firm	Location	No. of spindles
(a)	BACAUL	Bacau	2,100
(b)	A.CERKEZ	Bucarest	880
(c)	FILCAR	"	937
(d)	FILCOM	"	1,680
(e)	IND.TEXT.ARADANA	Arad	1,384 (See (p) Page 75)
(f)	IRTI	Medias	1,920 (See (r) Page 76)
(g)	MUNCA TEXTIL.	Bucarest	816
(h)	SOC.P.INDUSTRIA TEXTILA	"	2,000 (See(19) Page 77)
(i)	SOC.ROM.P.INDUSTRIA DE BUMBAC	"	1,900
(j)	I.STURM	Cisnadie	800
(k)	TEBA	Arad	7,338 (See No.(q) Page 76)
(l)	K.ZILL	Cisnadie	696
	TOTAL		22,721

(6) ARTIFICIAL FIBRES

Artificial silk fibre (Viscose yarn) is produced by only two enterprises:-

APRETURA at Popesti-Leordeni

VISCOSA ROMANEASCA at Lupeni

Capacity

APRETURA's annual capacity is 1,100 tons

LUPENI's " " " 960 " plus 180 tons of artificial cotton fibre.

TEXTILE INDUSTRY (contd)

Note: Another source gives the combined annual output of the two concerns in 1946 as 4,800 tons rayon and 2,100 tons of staple fibre)

Raw materials

All raw materials (with the exception of sulphur) are produced in the country. About 75,tons of sulphur are required annually.

Production

Production in 1945 is reported to be down to 25% of normal output.

(7) SILK WEAVING

There are 90 mills which inter alia also weave natural and artificial silk. Over 3,000 looms are in use for this purpose. Of these 218 produce ribbons only.

Artificial silk products predominate.

In 1941 over 7,000 workers were engaged in this trade.

XVII. PULP AND PAPER INDUSTRIES

The capacity of the Roumanian paper industry in 1940 was 105,150 tons. The paper cartel which then controlled nearly 92 per cent of the production, sold 58,090 tons valued at Lei 1,201 million for domestic consumption. Capacity of the paper board industry was 15,800 tons and capacity of the cellulose industry 51,000 tons. Domestic consumption of paper board was about 12,000 tons and of cellulose 37,000 tons.

(1) CELLULOSE PULP

The three principal pulp producers in Roumania are:-

(i) FABRICA DE CELULOZA ZARNESTI S.A. at ZARNESTI (near Brasov)

Annual production: 20,000 tons sulphite cellulose

Exceptionally in 1940 over 28,000 tons were produced.

Is free to sell its produce to any paper mills. Principal clients: Paper mills at PETRESTI, at TIMEAJEN and at ZARNESTI. 2,600 H.P. 850 workmen.

(ii) FABRICA DE CELULOZA din PIATRA-NEAMT (Moldavia)

Belongs to the BUSTENI Paper Mill. 3,762 H.P.

Produces pulp by the sulphite and sulphate process

Output 15 to 16,000 tons per annum. Supplies pulp to the BUSTENI and the PIATRA-NEAMT paper mills. Production was stopped in 1944 and part of the machines moved to BUSTENI owing to the Russian advance. It was intended to re-erect them in PIATRA-NEAMT after cessation of hostilities, but confirmation whether this has been done is so far lacking.

(iii) CELLULOSE SECTION OF THE LETEA PAPER MILL IN BACAU (Moldavia)

Produces wet pulp by the sulphite process only for the adjacent paper mill. Output 9 - 11,000 tons per annum.

Production: of Cellulose and cardboard (in tons):

1936	23,370
1937	24,447
1938	25,396
1939	27,658
1940	28,428
1941	9,339
1942	14,064
1943	13,068
1944	11,219

PULP AND PAPER INDUSTRIES (contd)

Export of Cellulose (tons)

	Bleached	Unbleached	Total
1936	6,539	2,574	9,163
1937	4,594	2,434	7,028
1938	5,290	1,229	6,529
1939	9,520	4,544	14,064
1940	3,113	2,800	5,913
1941	1,399	945	2,344
1942	212	-	212
1943	40	680	720

(2) PAPER MANUFACTURERS

Company	Location	Capacity and Production 1946
(a) ARDEAL S.A.	Nasaud	
(b) "BUSTENI" FABRICA DE HARTIE	Bustoni	6 machines:- 1 - 360 cm 2 - 280 cm 2 - 210 cm 1 - 130 cm 2 paper board machines. Hydro-electric 1,500 H.P. Steam turbines 12,000 H.P. In July 1948 it was reported that a new machine was being erected, the output of which it is claimed, will exceed the total output of all existing machines in Roumania.
(c) "CAMPULUNGUL" FABRICA DE HARTIE	Campulung	2 Fourdrinier machines 160 cm and 220 cm Cellulose mill
(d) CARTONUL ROMANESC S.A.R.	Campulung	Output 1,400 tons cardboard p.a.
(e) COPONY (Martin)	Tohanul-Vechi Tarlau, Zarnesti	5 machines:- 1 - 145 cm 1 - 148 cm 1 - 165 cm 2 - 173 cm
(f) FABRICA DE HARTIE PETRESTI S.A.	Petrosti jud Alba	2 machines. Capacity 8,000 tons 300 workmen.

PULP AND PAPER INDUSTRIES (contd)

	Company	Location	Capacity and Production, 1946.
(g)	LETEA FABRICA DE HARTIE S.A.	Zarnesti jud Brasov	3 machines:- 1 - 1.70 m. 1 - 2.10 m. 1 - 2.60 m. Output [illegible] tons p.a.
(h)	LETEA PRIMA S.A. PENTRU FABRICAREA DE HARTIE	Bacau	7 machines: 1 - 104 cm. 1 - 175 cm. 5,000 H.P. 1 - 204 cm. 1 - 100 cm. 2 - 200 cm. Also manufactures Bank note paper for National Bank.
(i)	"PIATRA-NEAMT" S.A.R. FABRICA DE HARTIE SI MUCAVA	Piatra-Neamt	4 machines:- 1 paper - 240 cms. 3 cardboard Output 8,500 tons p.a.
(j)	PRIMA FABRICA DE HARTIE	Susenii Barganului	2 machines. Output 5,000 tons paper p.a.
(k)	SOCIETATEA PENTRU FABRICATIA SI COMERTUL DE HARTIE	Scaeni jud Prahova	Output 1,320 tons cardboard 7 paperboard machines. 160 workmen.
(l)	WARGA	Cluj	2 board machines

SECRET

XVIII. TIMBER INDUSTRY

There were no less than 478 saw mills in Roumania in 1939, employing nearly 40,000 workers. A list giving the names and addresses of 454 of these is available.

The most important concerns are:-

	Company	Location	Remarks
(a)	ARDELEANU S.A. INDUSTRIA LEMNULUI	Bucarest	
(b)	CARPATINA	Slatina	Box factory, parquet factory
(c)	FORESTA ROMANA S.A.	Bucarest	
(d)	INDUSTRIA LEMNULUI BICSAD	Bicsad, jud. Satu Mare	
(e)	"MOLDOVA" INDUSTRIA LEMNULUI	Piatra-Neamt	
(f)	MUNDUS SI BORLOVA ARMENIS Industrie de Lemn	Caransebes	
(g)	RESITA S.A.R.	Anina, Vasiova, Valiug, Zavoi	See page 32.
(h)	ROMANIA FORESTIERA	Braila	8 saw mills. 160 workmen
(i)	S.A.FORESTIERA DIN BELTIUG	Satu Mare	

In August 1948 all former private timber companies were grouped in 28 State Timber enterprises, located in the largest wood exploitation centres in the country. They bear the name of the respective town or district.

The former State Timber Administration - CAPS (Casa Autonoma a Padurilor Statului) will continue to operate until its abolition and incorporation in the above State Timber Enterprise.

XIX. CHEMICAL INDUSTRY

In 1940 there were more than 300 chemical concerns employing 18,000 persons. Most of the firms were small and larger businesses were exceptional. The most important firms are those producing heavy chemicals and rubber goods.

Production of pharmaceutical products, cosmetics, paints and dyes, soap and candles, was small and in the hands of small concerns.

(1) Heavy Chemicals and Fertilisers

In 1938 there were more than 60 firms, of which two-thirds were small, producing acids and acetylene. Larger firms producing heavy chemicals and fertilisers were as follows:-

Company	Location	Capacity and Production
(a) AEROGEN S.A.	Ploesti	Acids
(b) AZOT, S.A.R.	Transylvania	Artificial fertilisers. No details available.
(c) MARASESTI S.A. ROMANA PENTRU INDUSTRIA CHIMICA	Brasov	Sulphuric acid; hydrochloric acid; iron sulphate. Employees - 100.
	Valea Calugareasca	Superphosphates; sulphuric acid; magnesium; copper and iron sulphate.
	Marasesti	Superphosphates; Bone meal. Capital of the company: Lei 100 million. Employees - 400.
(d) NITRAMONIA	Fagaras	See under Explosives. Page 88
(e) NITROGEN S.A. ROMANA PENTRU INGRASAMINTE SI PRODUSE CHIMICE	Diciosanmartin Tarnaveni and Tarnava Mica	Calcium carbide factory. Capacity 100 tons per day. Calcium nitrate factory: capacity 120 tons per day. Alkali electrolysis plant; chlorine products; ammonia. 2050 workmen
(f) PHOENIX FABRICA DE ACID SULFURIC SI PRODUSE CHIMICE S.A. New name: FABRICA JOSZA BELA	Baia Mare	Sulphuric acid; hydrochloric acid; copper sulphate; aluminium sulphate; zinc white. Employees - 1,000.
	Firiza (Satu Mare)	Superphosphates Employees - 70.

CHEMICAL INDUSTRY (contd)

Company	Location	Capacity and Production
(g) S.A.a.USINELOR SOLVAY DIN ROMANIA	Ocna Murosului	Ammonia soda; crystal soda, waterglass, caustic soda, calcium carbonate
New name: FABRICA UIOARA	Turda	Calcium chloride; chlorine; sulphuric acid bicarbonate of soda. Capacity of both factories p.a.: Ammonia soda 45,000 tons; Crystal soda 20,000 "; Waterglass 4,300 "; Calcium chlorine 1,300 "; Sulphuric acid 2,500 "; Employees 1,100
(h) STEAUA ROMANA	Ploesti	Sulphuric acid plant as annexe to Petroleum Refinery
(i) TIMIS, INDUSTRIA CHIMICA S.A.	Timisoara	Sulphuric acid; copper sulphate; minor pigments

(2) WOOD DISTILLATION

(a) DARMANESTI DISTILLARIA DE LEMN	Darmanesti (Bacau District)	Charcoal; methanol; calcium acetate. Capital - Lei 6.5 million employees - 70.
(b) MARGINA-RESITA DISTILLAREA DE LEMN UNITE S.A.ROMANA	Margina	60,000 tons charcoal; methanol. 1,000 tons acetone.
	Resita	Methylacetate; calcium acetate
	Valea Minisului	300 tons formaldehyde Timber consumption 200,000 cubic metres p.a. Employees - 450.

(3) PAINTS AND DYES

Production in 1940 was in the hands of 60 firms mostly small with a capital ranging from Lei 1 to Lei 3 million.

Company	Location	Capacity and Production
(a) COLORM FABRICA DE PRODUSE CHIMICE S.A.	Codlea (Nr. Brasov) Bucarest	Aniline dyes and kindred products for textile, leather and paper industries. Capital Lei 14 million. Employees

CHEMICAL INDUSTRY (contd)

	Company	Location	Capacity and Production
(b)	CORONA FABRICA DE LACURI VOPSELE SE PRODUSE CHIMICE	Bucarest	All types of dyes and paints. 80 workers
(c)	FABRICA UNITA DE LACURE SI VOPSELE S.A.	Timisoara	Paints, dyes and vegetable oils. Capital Lei 8 million.
(d)	POLYCHROM, FABRICA DE VOPSELE LACURI SI PRODUSE CHIMICE S.A.	Arad	Paints, dyes, disinfectants. Capital Lei 6 million. Employees 70.
(e)	SCHMOLLPASTA S.A.	Brasov	Leather dressings and boot polish. Capital Lei 14 million. Employees 70.

(4) EXPLOSIVES

Explosive production was almost exclusively in the hands of 2 large concerns:-

PRIMA SOCIETATE ROMANA DE EXPLOSIVI	Fagaras	Dynamite and all types of explosives; sulphuric acid Output 1937:- Explosives - 982 tons Capital Lei 110 million Employees: 270.
NITRAMONIA S.A. ROMANA	Fagaras	Nitric acid; ammonium nitrate; sodium nitrate and other raw materials for explosives. Capital Lei 70 million.

These two companies (now nationalised) are to be amalgamated in September 1948 under the title: "NITRAMONIA EXPLOSIVI UZINENE CHIMICE UNITE din FAGARAS"

STATE OWNED POWDER FACTORY	Dudesti near Bucarest	Nitro-cellulose powders for military use.

(5) SOAP AND CANDLES

There were about 40 firms producing soap and candles in 1940 but only a few employed more than 20 workers. By far the biggest was Fabrica Stella S.A.

FABRICA STELLA S.A.	Bucarest	Washing and medicinal soaps. Eau de Cologne and other perfumes. Glycerine. Capital Lei 25 million Employees 150

UNILEVERS have a financial interest in this firm.

CHEMICAL INDUSTRY (contd)

Company	Location	Capacity and Production
(6) PHARMACEUTICAL PRODUCTS		
(a) LABORATORUL FARMACEUTIC "LUTETIA" S.A.R.	Bucarest	1937 capital Lei 12 million
(b) MARGINA RESITA S.A.R.	Timisoara	
(c) ODOL, S.A.R.	Bucarest	
(d) PRODUSELE "DOTOT" S.A.R.	"	1937 capital Lei 2 million
(e) Dr. Wander S.A.	"	Diatetic and pharmaceutical products. Capital 1933 - Lei 4 million.

SECRET

XX. LEATHER INDUSTRY

There were 158 concerns in the Leather industry in 1938, employing 13,366 workers.

Leather production was as follows:-

Tanned Leather	1939	10,500 tons
	1940	9,200 "
Raw Hides	1940	19,868 tons

The most important factories are:-

	Name of Concern	Location	Remarks
a)	GRIGORE ALEXANDRESCU (GRALEX)	Bucarest	560 workmen 750 H.P. Capacity: 220,000 pairs military and 250,000 pairs civilian boots p.a.
b)	KARRES, S.A.	Medias	800 workmen 680 H.P. All types of leather
c)	MOCIORNITA S.A.R.	Bucarest	1,000 workmen 1,000 H.P. All types of leather. Boots and shoes for civilian and military use.
d)	PRIMA FABRICA de INCALTAMINTE din BANAT comprising "TURUL" Comp. and "DERMATA"	Temisoara Cluj	No details
e)	TALPA S.A.R.	Bucarest and Tulcea	1000 workmen Capacity 12,500 tons p.a.

SECRET

XXI. RUBBER INDUSTRY

The Rubber industry started only in 1921. The most important factories are:-

(a) BANLOC, S.A.R.

Situated at FLORESTI (Distr. PRAHOVA)
Workshops surface 7,000 m^2.
Capacity: 200 tyres per day. Number of inner tubes not known. The GOODRICH Company of AKRON, Ohio originally had an interest in this Company, but in 1942 the Company signed an agreement with the CONTINENTAL Co. of HANNOVER for technical assistance.

(b) FABRICA DE CAUCIUC BRASOV, S.A.

Strada Mihai VITEAZUL 144, Brasov.

Capacity: About 20 tyres per day. Main product rubber hoses and technical material. 300 workmen.

(c) CAUCIUCUL QUADRAT S.A. Bucharest.

Manufactures rubber shoes, galoshes.

Capacity: 200,000 pairs per annum. Produces new bicycle tyres.

Number of workmen: 350.

(d) UZINELE CHIMICE ROMANE S.A. Bucharest

Manufactures rubber shoes.
Number of workmen: 1,200.

Medium sized factories

(a) INDUSTRIA CAUCIUCULUI S.A. Bucharest
(b) MIRA S.A.
(c) SUPERTURA S.A.
(d) UZINELE TEONIT S.A.
(e) VULCAN S.A.

Small factories

(a) ARDA
(b) AMERICANGUM
(c) I.NICOLAU
(d) OPINCA de CAUCIUC (Manufactures peasant rubber footwear)
(e) ORECA
(f) RANGUM

Note: Details are required on the factories listed under paras 2 and 3.

Capacity of Industry

This was calculated before the war to be about 4,500 tons. In September 1948 the Roumanian Government affirmed that whereas before the war 50% of Roumania's rubber consumption was covered by home production, the 1948 programme provided for this to be stepped up to 75%.

Raw materials

Crude and synthetic rubber has to be imported.

XXII. MATCHES

"CHIBRITURILE" SOC.ROM.

This State Match Monopoly was leased in 1929 to the SVENSKA TANDSTICKS AKTIEBOLAGET (Swedish Match Company).

The two principal factories are situated at

BUCAREST (Filaret suburb)	200 workmen 500 H.P.
TIMISOARA (Banat)	260 H.P.

both were bombed during the war and rebuilt.

Capacity: 400 million boxes per annum.

Internal consumption: about 300 million boxes.

Raw Materials Of the 33 components required in the match industry, Roumania has to import 10. Normally the factories have stocks of raw materials sufficient for 10 months' output. The FILARET works require daily 50 tons of wood, TIMISOARA, 30 tons.

Annual requirements: 150 tons Potassium chlorate

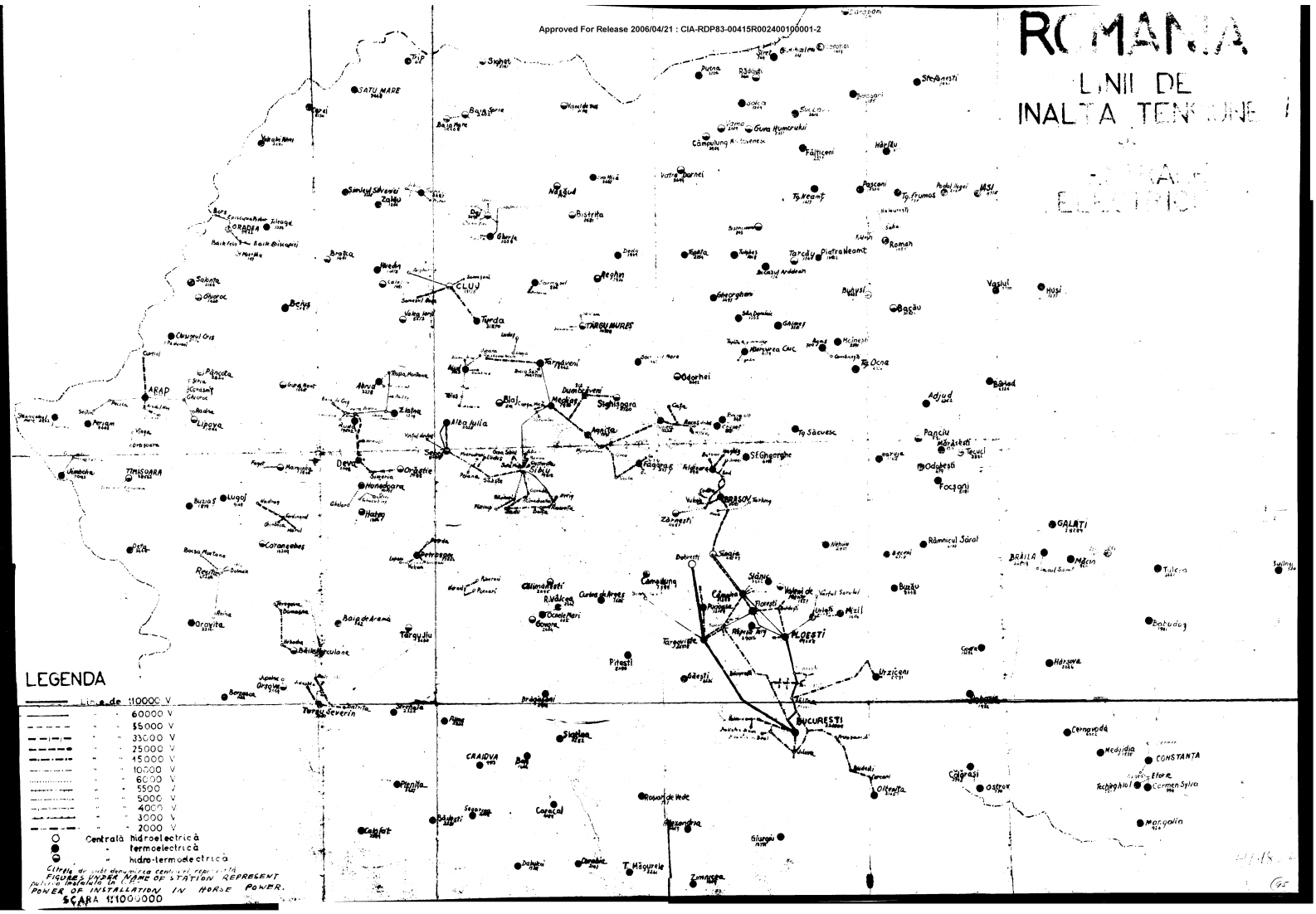
12 tons red phosphorus

10 tons Antimony sulphide

also pulverised sulphur, zinc oxide, potassium bichromate, red iron oxide, manganese dioxide, gum arabic, gum tragacanth (quantities not known).

ROMANIA

LINII DE INALTA TENSIUNE



XXIII. SUGAR INDUSTRY

Before the war Roumania had 15 sugar factories. Five of these were lost due to territorial changes. Of the remaining ten, one at Tg.MURES was badly damaged during the war; two (ITCANI and RIPICENI) were dismantled and sent to Russia on reparations account. The remaining seven are situated at:-

	Capacity in 1945 in tons of beet per 24 hours	Installed Power
ARAD (Transylvania)	700	1,856 H.P.
BOD (near BRASOV)	2,200	1,866 H.P.
CHITILA (near Bucarest)	700	1,440 H.P.
GIURGIU (on the Danube)	1,650	6,877 H.P.
ROMAN (Moldavia)	2,200	6,200 H.P.
SASCUT (Moldavia)	800	1,003 H.P.
TIMISOARA (Banat)	2,700	350 H.P.

An eighth factory is under construction at LIVEZI. The buildings were completed in 1945, but it is not known whether the machinery ordered from SKODA has been delivered. It is designed to handle 2,500 tons of beet per 24 hours.

When the Tg.MURES factory is rebuilt it will be capable of handling 1,400 tons of beet per 24 hours.

The average working period being 100 days per annum, it follows that the capacity of these factories is about 900,000 tons of beet or 125,000 tons of sugar.

XXIV. ELECTRICITY

Electrification progressed slowly in Roumania in the interwar period, rising from an installed capacity of 307,000 kW in 1930 to 591,000 kW in 1942. Plans have recently been announced for the construction of new power plants. One of these projects consists of a 16,000 kW hydro-electric plant to be erected on the JALOMITZA River near Bucarest.

Roumania and Bulgaria have signed an agreement for the supply of electricity to border areas in Bulgaria. For this purpose a special power line from Bucarest via GIURGIU to RUSSE is under construction. The cable to be laid across the Danube has been ordered in England.

Nine State Electricity Companies are to be formed (one for Bucarest and eight in various provincial centres). These companies are to take over the 83 power stations which became the property of the State when they were nationalised in June 1948. An Industrial Centre of Electric Energy has also been created.

The following table shows the total installed capacity of Roumanian plants in 1942.

Electricity: Installed Capacity, 1942.

(000 kW)

Total Installed Capacity	Capacity of Plants for general use	Capacity of Industrial Plants	Percentage of population served with electricity.
591	291	300	25.1

Attached is a map showing total installed power in all public and private electric generating plants throughout the country.

Detailed breakdown figures are required giving the list of individual power stations in each locality.

NEW NAMES GIVEN TO FACTORIES AFTER NATIONALISATION (contd)

New name	Old Name
Non-ferrous Metals Industry	
[illegible] LAMINOR	LAMONET, Bucarest (Page 66)
Electrical Industry	
FABRICA de ACUMULATORI PROGRESUL	TUDOR S.A.R. Bucarest (Page 64)
FABRICA DE MOTOARE "ROSA LUXEMBURG"	BRITANIA, Bucarest (" 64)
FABRICA DE TELEFOANE "TELEFONUL"	STANDARD, Bucarest (" 64)
Chemical Industry	
FABRICA UIOARA	SOLVAY at Ocna Muresului (Page 87)
FABRICA JOSZA BELA	PHOENIX, Baia Mare (" [illegible]
Textile Industry	
FILATURA "OLGA BANCIU"	ING. CASSASOVICI, Bucarest (Page 75)
TESATORIA "IVANUS CONSTANTIN"	STAN RIZESCU, Branesti " 77)
FABRICA de IN SI CANEPA TRAINICA	FRATII RIZESCU, Branesti
FABRICA de IN SI CANEPA BUZEUL	FRATII RIZESCU, Buzau
FABRICA "PARTIZANUL ROSU"	WILHELM SCHERG, Brasov (Page 79)