

WEEKLY SURVEY OF AXIS EUROPEOIL PRODUCTIONNo. 18 - 8th NOVEMBER, 1944

Note: This Survey summarises the conclusion of the Working Committee (Oil Production) of the Combined Strategic Targets Committee upon the current status of Axis oil production. The assessments are based on ground intelligence and deductions from air cover; the forecast of future output takes into account the enemy's potential repair performance, but makes no allowance for additional damage in further attacks. The present report includes the known results of all attacks up to and including November 6th.

I. ATTACKS.

The following attacks were made since our last report:-

<u>Date</u>	<u>Location</u>	<u>Company</u>
30.10	WESSELING	Rheinische Braunkohlen
31.10	BOTTROP-WELHEIM	Ruhrroel
1.11	GELSENKIRCHEN- NORDSTERN	Gelsenberg Benzin
	GELSENKIRCHEN-BULL HOMBERG	Hydrierwerke Scholven Rheinpreussen
2.11	LEINA CASTROP RAUXEL STERKRADE HOLTEN HOMBERG	I.G. Farben Klockner-Wintershall Ruhrbenzin Rheinpreussen
4.11	BOTTROP-WELHEIM HARBURG HARBURG GELSENKIRCHEN- NORDSTERN MISBURG NEUNKIRCHEN BENZOL LINZ BENZOL	Ruhrroel Rhenania Eban Gelsenberg Benzin Deutsche Erdol Neunkirchener Eisenwerke Hermann Goering
5.11	LUDWIGSLAFEN VIENNA-FLORIDS- DORF	I.G. Farben Shell
6.11	STERKRADE-HOLTEN BOTTROP-WELHEIM HARBURG HARBURG DUISBURG- MEIDERICH TAR	Ruhrbenzin Ruhrroel Rhenania Eban Teerverwertung

Most of these attacks have been blind and in no case has post-raid cover been obtained. In consequence, the number of plants, the status of which is not known, amount to ten synthetic plants, two refineries and three benzol plants.

II. OVERALL EFFECTS ON PRODUCTION.

Estimates of the present state of the oil and benzol plants are given in the tables attached. The figures given make no allowance for the possible effects of further attacks or for the effects of past attacks the results of which are not yet known.

	<u>metric tons per month</u>	
Pre-raid normal output of finished products	1,344,000	(100%)
Estimated production in August	526,000	(39%)
September	314,000	(23.5%)
October	438,000	(32%)
November	601,000	(46.1%)

Revised estimates of the output of the principal refined products in October and November are given in Table II and are summarised below:-

	<u>% of pre-raid normal output</u>	
	<u>October</u>	<u>November</u>
Gasoline	31.5	50
Kerosine	18	25
Gas/Diesel Oils	38.5	60
Fuel Oils	38	41.5
Lube Oils	24	32
TOTAL	32.5%	46%

III. SITUATION IN THE PRODUCING AREAS.

Current production status of the principal plants is summarised in Table III.

a) Bergius Hydrogenation Plants.

Five plants which may well have all been active (LEUNA, NORDSTERN SCHOLVEN, WESSELING, BOTTROP-WEIHEIM) were attacked in the course of the week but in no case are the results yet known. The status of BRUX, BOHLEN and MAGDEBURG is also uncertain in the absence of information on the results of earlier attacks; unless damage in these attacks was heavy, these plants are now likely to be in operation.

ZEITZ had restarted operations when covered early in October and has probably by now reached more than 50% of capacity. POLITZ, BLECHHAMMER SOUTH and the Bergius section of LUTZKENDORF have probably now resumed operations, though this has not yet been confirmed by cover. BLECHHAMMER NORTH may also be resuming shortly.

LUDWIGSHAFEN and OSWIECIM are believed to be inoperable at present.

b) Fischer Tropsoh Plants.

Attacks were carried out in the course of the week on three plants (HOMBERG, STERKRADE HOLTEN and CASTROP RAUXEL). Although post-raid cover is not yet available, the last attack on HOMBERG seems likely to have inflicted heavy damage. The results of two attacks on STERKRADE HOLTEN, at which resumption of operations was considered imminent at the time of the attacks, are not yet known. CASTROP RAUXEL, which was in a similar situation, does not appear to have received much further damage but was still inactive when covered within the last few days.

Of the remaining plants only RUHLAND is positively known to be in operation (at more than 50% of capacity) but the LUTZKENDORF Fischer plant which appeared capable of partial operation when covered early in October, may now have resumed. DESCHOWITZ has almost certainly resumed production by now. WANNIE BICKEL may be coming back into operation in the course of the next week but DORTMUND may not resume production for another ten days yet and KAMEN is unlikely to get back into production before the end of the month.

c) German Refineries.

The HARBURG refineries, which were still active or operable on October 29, have been attacked again on October 30, November 4 and November 6 with results which are, as yet, unknown.

MISBURG, which was also seen to be operating at the end of October was attacked on November 4 but appears to have received no fresh damage and the post-raid cover shows the plant still active.

New cover of HEIDE shows that this refinery has resumed partial operation.

There are no significant changes to report in the status of the smaller German refineries.

d) Austrian Refineries.

FLORIDSDORF, which was probably active at the time, received a heavy attack on November 5, the results of which are not yet known.

Of the remaining plants, KORNEUBERG and VOSENDORF are probably in partial operation; LAGAN was still inactive when last covered but may resume shortly and SCHNECFELT is still under repair. LOBAU, when covered at the beginning of the month, had apparently made little progress towards the resumption of operations.

Reconnaissance has revealed that in the course of repair work at Austrian refineries, excavations (often incorporating conveniently sited bomb craters) are being made, evidently with a view to sinking equipment into the ground and thereby providing it with added protection. This development may assist in reducing the vulnerability of particular items of equipment from blast and splinter damage; it also shows the difficulty of dispersing oil refining operations.

e) Czechoslovak Refineries.

BRATISLAVA is the only refinery positively known to be inactive. KRALUPY and MORAVSKA are presumed to be maintaining full output and NOVY BOHUMIN is assumed to be operating on a limited scale. KOLIN, DUBOVA and PARDUBICE may now have recovered sufficiently to assume output.

g) Polish Refineries.

Repairs were progressing at the TRZEBINIA refinery when covered in September. It must therefore be reckoned that by now this plant has sufficiently recovered from the damage inflicted on August 8 to be capable of operation at about 50% of capacity, on imported Austrian or Hungarian crude.

DZIEDITZ (CZESCHOWICE), attacked on August 20, was still inactive when covered early in October but repairs were seen to be in progress and refining operations may be resumed during November.

Major

(h) Major Benzol Plants.

Four of the major benzol plants are out of action, three are working at a reduced rate, and three more were attacked in the course of the week with unknown results. Eleven of the major plants are known to be fully active.

ECONOMIC ADVISORY BRANCH  
(F. C. and M. E. W.)  
8th November, 1944.

TABLE I

ESTIMATED OUTPUT OF AXIS OIL PLANTS FROM  
 INFORMATION AVAILABLE UP TO  
6TH NOVEMBER, 1944.

(All figures in thousands of metric tons per month)

	<u>Normal</u>		<u>Estimated Output of</u>				
	<u>Finished</u>	<u>Products</u>	<u>Finished Products</u>				
	<u>Output</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>		
<u>SYNTHETIC PLANTS:</u>							
1. Bergius Hydrogenation	368	46	42	119	213		
2. Fischer Tropsch	112.5	50	22	28	62		
Total from Synthetic Plants	480.5	96	64	147	275		
Percentage of pre-raid Total	100%	20%	13%	30.5%	57%		
<u>REFINERIES:</u>							
	<u>Capacity</u>						
	<u>Finished</u>						
	<u>Products</u>						
	<u>Output (B)</u>						
4. Germany	149	(From	29	42	76(A)	97(A)	
5. France	260	avail-	0	0	0	0	
6. Belgium	42	able	0	0	0	0	
7. Holland	52	crude	0	0	0	0	
8. Czechoslovakia	48	Note (C).)	29(A)	8(A)	13(A)	26	
9. Poland	78		13	0	4	8	
10. Austria	54		19	16	12	29	
11. Hungary	60		5	9	9	6	
12. Italy	80		0	0	0	0	
13. Yugoslavia	21		0	0	0	0	
14. Albania	2		0	0	0	0	
15. Rumania	740		143	0	0	0	
	1586		697.5	238	75	114	158
Percentage of pre-raid total	100%		31%	11%	15.5%	22.5%	
<u>GRAND TOTALS:</u>							
(i) Synthetic Plants	480.5	96	64	147	275		
(ii) Crude Oil	697.5	238	75	114	166		
(iii) Other Sources (D)	166	192	175	175	175		
TOTAL	1344	526	314	436	616		
Percentage of pre-raid total	100%	39%	23.5%	32.5%	46%		

NOTE: (A) Assumes imports of crude to extent of available capacity.

(B) Crude oil refinery capacity less 10% for refining loss.

(C) Figures for normal finished products output from available crude by individual countries not indicated. Total figure is used for comparative purposes.

(D) From sources comprising benzol, alcohol, tar oils, etc. and including unrefined oils used as liquid fuels.

TABLE II

ESTIMATED OUTPUT OF PRINCIPAL FINISHED OIL PRODUCTS  
(All figures in thousands of metric tons)

	<u>GASOLINE</u>	<u>KEROSINE</u>	<u>GAS/DIESEL OILS</u>	<u>FUEL OILS</u>	<u>LUBE OILS</u> <sup>xx</sup>	<u>TOTAL</u>
<u>Normal Pre-raid Monthly Output</u>	532	100	284	280	148	1344
<u>Estimated Output in October</u>						
From: Bergius Plants	80	-	36	-	3	119
Fischer Tropsch	19	2	5	1	1	28
Refining of Mineral Oils	18	16	43	20	17	114
Other Sources	50	-	25	65	15	175
Total Resources	167	18	109	106	36	436
Percentage of Pre-raid Total	31.5%	18%	38.5%	38%	24%	32.5%
<u>Estimated Output in November</u>						
From: Bergius Plants	143	-	64	-	6	213
Fischer Tropsch Plants	43	3	12	2	2	62
Refining of Mineral Oils	26	22	66	29	23	166
Other Sources	50	-	25	65	15	175
Total Resources	262	25	167	116	46	616
Percentage of Pre-raid Total	50%	25%	60%	41.5%	32%	46%

xx NOTE: The figures shown for lubricating oil output are largely theoretical.

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7th November 1944.

TABLE III : CURRENT PRODUCTION STATUS OF PRINCIPAL OIL PLANTS.  
 (Figures in brackets refer to normal monthly output of motor fuel in thousands of metric tons)

PRODUCTION STATUS	24 SYNTHETIC PLANTS	21 GERMAN REFINERIES	22 OTHER REFINERIES	21 BENEVOLE PLANTS
<u>Category 1</u> IN FULL PRODUCTION				HANSA (1.0) PROSYER (0.9) OSTENFELD (0.8) EWALD-FORTSETZUNG (0.6) ROBERT MUSER (0.6) CONSOLIDATION I/VI (0.6) GHEISLAU (0.5) MINISTER STEIN (0.5) SALZGITTER (0.8) VOLLINGEN (0.6) CASROP RAUHL P.M. (1.0)
<u>Category 2</u> IN PARTIAL PRODUCTION (confirmed by air cover)	ZEITZ RUELLAND	(12.5) MISBURG (8.5) HEIDE KONIGSM OSLEBSHAUSEN HAMBURG-ALSBROCK (Rhenania) HAMBURG-WILHELM BURG (Dach & Rhenania) REINIGLE DOLLBERGER KORTMUND	(10.0) KORNWALDING (0.8) VOSSENDORF (Nil) (Nil) (Nil) (Nil) (Nil) (Nil) (Nil) (Nil)	(0.1) NORDSTERN (0.1) KAISERSFUHL ALMA-PLUTO (0.5)
<u>Category 3</u> PROBABLY IN PARTIAL PRODUCTION (Confirmation by air cover lacking)	POLITZ BLECHLINDER LUTHELDORF (Bergius) LUTHELDORF (Fischer) DESCHOWITZ	(45.0) SALZBERGEN (31.5) HEINE (5.0) (8.0) (4.0)	(Nil) KOLIN (Nil) DUBOVA NOVY BOHUMIN KRALUPY MORAVSKA ALMASFUZITO SEONY TRZEBINIA DZIEDITZ	(0.3) (0.3) (1.6) (0.1) (1.2) (4.5) (2.3) (1.6) (1.6)

Category 4/

PRODUCTION STATUS	24 SYNTHETIC PLANTS	21 GERMAN REFINERIES	22 OTHER REFINERIES	21 BENZOL PLANTS		
Category 4. PRODUCTION TEMPORARILY SUSPENDED (damage to non-vital installations)	BLECHLIMMER NORTH	(9.0)		LOBAU (0.9)	BRUCKLAUSEN (1.0)	
	WAPNE EICKEL	(6.5)		SCHWELCHAT (0.3)	HEIDERICH (0.9)	
	DORTMUND	(4.0)			SCHOLVEN (0.7)	
	CASTROP RAUXEL	(4.5)			VICTOR (0.7)	
Category 5. PRODUCTION SUSPENDED (pending repair of vital installations)	KAMEN	(5.0)	ROSITZ	(NIL) KAGRAN (0.2)		
				PARDUBICE (0.5)		
Category 6. PRODUCTION SUSPENDED INDEFINITELY (inoperable; no repairs)	LUDWIGSHAFEN	(7.2)	HALBURG (Eurotank)	(13.0)	BRATISLAVA (4.0)	
	* OSWIECIM	(1.8)	OSTERMOOR	(0.7)	BUDAPEST-CSEPEL (5.6)	
			HAMBURG-WILHELM- BURG (Schliemann)	(NIL)	BUDAPEST-MAGYAR (2.2)	
			HALBURG-GRAEBROCK (Albrecht & Schliemann)	(NIL)	BUDAPEST-TINOC (1.3)	
			HALBURG-MURGE (Schindler)	(NIL)	PATFURDO (2.5)	
			HEIDERICH	(NIL)	BUDAPEST-MAZAI (1.3)	
			SCHLEIS	(NIL)		
			WRETTAL	(NIL)		
	Category 7. PRODUCTION STATUS UNKNOWN (post-raid cover awaited)	BRUX	(29.0)	HALBURG (Rhenania)	(14.0)	FLORIDSDORF (0.3)
		LEUNA	(25.0)	HALBURG (Ibano)	(2.0)	HEUNKIRCHEN (0.6)
NORDSTERN		(30.0)			LIEZ (0.6)	
SCHOLVEN		(26.0)			DUISBURG-	
BOHLEN		(12.5)			HEIDERICH TAR (1.0)	
MAGDEBURG		(10.5)				
WESSLING		(8.5)				
BOTTROP WILHELM		(7.2)				
HOMBURG		(9.5)				
STERKRADE HOLTEN		(5.0)				

\* Incomplete and inoperable.