

世界精油工場

建設現況

会社・所在地	プロジェクト	精製能力 (b/d)	備考・完工時期
UNITED STATES			
Arco Inc.— Seadrift, Tex.	Coke complex	2,209	CE Lummus. \$119 MM. Late 1983.
Meranda Hess—Purvis, Miss.	FCC	50,000	Expan. Fluor. 1983.
Port Reading, Pa.	Modern	....	Dismantle alky. Fluor. 1983.
Toco Oil— Texas City, Tex.	Hydrotreat	55,000	Cat feed. Eng. Braun. Const: Brown & Root 1983.
	Hydrotreat	60,000	Resid. Eng: Lummus-Braun. Const: Brown & Root. 1984.
Arizona Fuels— Fredonia, Ariz.	Coke	50 t/d	Planned.
American Oil US Inc.— Commerce City, Colo.	FCC Poly	8,000 1,600	12,500 total cap. May 1984. 2,400 total cap. May 1984.
Midland Petroleum— Cattlettsburg, Ky.	RCC Pitch	40,000 385	Procon. Spring 1983. 2,000 total cap. \$1.5 MM. 1983.
Atlantic Richfield— Carson, Calif.	Coking	45,000	2,000 t/d coke output. Fluor. 1982.
Phillips 66— Oil—Marcus Hook, Pa. ...	FCC	50,000	Total cap. Eng: Kellogg. 1983.
Phillips 66 Refining & Distrib.— Jacking—Savannah, Ga.	New ref	30,000	Davis & Floyd Eng. Early 1983.
Georgetown, S.C.	New ref	30,000	Environmental litigation.
Amplint Petroleum— Corpus Christi, Tex.	Modernize	....	\$200 MM. Yeargin Const. 1983.
Wilmington, Calif.	FCC Hf alky Arom	30,000 9,000 3,000	Fluor on all units. \$100 MM. 1982.
Exxon USA—Pascagoula, Miss.	Crude Delay coking Coke-t/d Vac Alky Hydroref Hydroref Hydrogen MMcfd Hydrotreat	15,000 59,000 2,900 81,000 7,600 96,000 37,000 95.0 96,000	295,000 total cap. Eng: Foster Wheeler. Con: Brown & Root over all. 1983. 229,000 total cap. 16,800 total cap. Resid desulf. Gas oil desulf. 204.0 total cap.
Richmond, Calif.	Lube plant	11,000	Expan. Parsons. 1983. \$500 MM. Bechtel. Aug. 1984.

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Cities Service—Lake Charles, La.	Hydrocrack Delay coke Coke	30,000 33,000 2,000 t/d	Eng: C-E Lummus. \$100 MM. Early 1984 61,000 total cap. Foster Wheeler. Late 1983. 3,000 t/d total cap. Foster Wheeler. Late 1983.
Coastal Petroleum Refiners— Bakersfield, Calif.	Crude Vac Asphalt	5,000 5,000 3,000	15,000 total cap. Eng. stage.
Conoco Inc.—Lake Charles, La.	Vac Delay coking Delay coking Coke-t/d Coke-t/d Hydroref Hydrotreat Cat poly	14,500 2,000 33,500 170 1,960 27,000 16,000	53,500 total cap. Braun on the following units. Late 1983 completion. 10,500 total cap. Mar. 1983. 44,000 total cap. 750 total cap. Mar. 1983. 2,710 total cap. Feed pretreat. Distillates. Eng. stage. SIP. Feb. 1983.
CRA Inc.—Coffeyville, Kans.	Cat HDT Isom, C ₄ Isom, C ₅ -C ₆	4,200 4,500 5,000	24,000 total cap. Feed pretreat. June 1983. June 1983. June 1983.
Derby Refining— Wichita, Kans.	FCC Cat poly	6,500 1,000	17,000 total cap. Hobbs-Hood. \$55 MM total expan. Eng: Jacobs. 1983.
Exxon Co. USA— Baton Rouge, La.	Delay coking Coke-t/d	20,000 890	88,000 total cap. Foster Wheeler. on both units. Late 1982. 4,190 total cap.
Fletcher Oil & Ref— Carson, Calif.	Cat reform Visbreak	800 8,500	5,000 total cap. Planning. Planning.
Gary Refining—Fruita, Colo.	Hydrocrack Platform Hydrogen MMcfd	6,000 1,000 6.5	Eng: Parsons. Con: Vontech. 1983 on all units. 3,400 total cap. Eng: Jacobs. Steam meth reform. Kinetics Tech.

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Getty R&M— Delaware City, Del.	Reform	25,000	Contin cat regen. C-E Lummus. \$160 MM improvements. Mid 1983.
	Hydrogen MMcfd	40.0	Old unit will be shut down when new reformer starts in mid 1983.
GHR Energy Corp.— Good Hope, La.	Delay coke FCC	100,000 80,000	Lummus-TCP. 1983. 220,000 total cap. UOP-TCP. Nov. 1983.
	Cat reform	40,000	Contin bimcat. UOP-TCP. Dec. 1982.
	Cat HDT	40,000	46,000 total cap. Feed pre-treat. UOP-TCP. Dec. 1982.
	Isom	50,000	C ₅ -C ₆ feed. 1984.
Gulf Oil—Port Arthur, Tex.	Crude	174,500	Procon-Gulf. Late 1982.
	Gulfiner	38,000	Procon. Early 1983.
	VGO Gulfin.	40,000	Davy McKee. Early 1983.
	Lube vac	39,000	Dravo. Early 1983.
	Dewax	8,000	Jacobs. Mid 1983.
	Coke	270 t/d	Dravo. Early 1983.
	Hydrotreat	75,000	140,000 total cap. SR dist. Late 1982.
Hill Petroleum— Krotz Springs, La.	FCC	22,500	Blount. \$40 MM. Nov. 1982.
	Independent Refining—		
Winnie, Tex.	FCC	25,000	Eng. stage. Begin const: Mar. 1983. Completion: June 1984 on both units.
	Hf alky	6,500	
*Koch Refining— Rosemount, Minn.	Delay coke	20,000	Eng: Kellogg. Const: Litwin. Late 1983.
Lake Charles Refining— Lake Charles, La.	Vac	13,500	Fall 1982.
	Delay coke	21,000	1983.
	Cat HDT	17,000	Dist. 1983.
	Cat poly	700	1983.
	Coke	1,000 t/d	1983.
Mallard Resources Inc.— Lake Arthur, La.	Crude	6,000	12,000 total cap. Mid 1983
Marlex Oil & Refining— Long Beach, Calif.	Refinery Assoc.—		
	Cat reform	3,000	Eng: UOP. Const: Hobbs-Bannerman. Oct. 1983.
Mobil Oil Corp.— Paulsboro, N.J.	Hydrodewax	15,000	14,200 replace—800 new lube cap. Braun. 1984.
	Cat HDT	8,000	41,000 total cap. Lube HDF conversion to CHD. Braun. 1984.
	Hydrogen MMcfd	11.0	Steam meth refor. Braun and KTI. 1984.
Murphy Oil Corp.— Meraux, La.	Deasphalt		
	Crude	16,000	70,000 total cap. \$80 MM total expan. Ford, Bacon, Davis on all units. 1984.
National Cooperative Refinery Assoc.— McPherson, Kans.	Hydrotreat	13,000	Distillates. 1984.
	Delay coke	7,000	22,000 total cap. Oct. 1983.
	Coke	200 t/d	650 t/d total cap. Late 1983.
Oklahoma Refining— Cyril, Okla.	Crude	4,800	20,800 total cap. Sept. 1983.
	Vac	4,000	10,000 total cap. Sept. 1983.
Pennzoil-Atlas Processing— Shreveport, La.	Crude	40,000	76,500 total cap. Eng: Sun-

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Phillips Petroleum— Borger, Tex.	Vac	14,200	tech. Const: Catalytic. 1982.
	Dewax	5,000	1982.
	Wax Hydro-finish	1,000	1982.
	NMP extract	6,400	1982.
	Hydrogen MMcfd	6.1	Howe Baker. 1983.
Sweeny, Tex.	Lube oil HT	5,000	Eng: Suntech. Const: Payne & Keller. 1983.
	Arom	2,850	5,575 total cap. Procon. Dec. 1982.
Placid Refining— Port Allen, La.	Rose	5,000	
Provident Energy Co.— Phoenix, Ariz.	New ref	50,000	Con: Foster Wheeler. \$550 MM. Nov. 1984.
	Vac	28,000	
Quaker State Oil & Ref.— Newell, W. Va.	Delay coking	11,000	
	Cat reform	31,000	Cyclic bimcat.
	Hydrocrack	25,350	Resid upgrade.
	Hydrotreat	9,700	Naph desulf.
	SR asphalt	10,500	
	Hydrogen MMcfd	51.2	Steam meth reforming.
	Coke	535 t/d	
	Vac fraction.	3,200	Eng-manage: Pona. Nov. 1982.
	Saber Refining—Corpus Christi, Tex.		
	FCC	41,500	Heavy oil cracker. Eng: Kellogg. Const: Zachry. \$532 MM. July 1983 on all units.
hf Alky	7,700		
Shell Oil—Martinez, Calif. ...	Hydroref	46,100	Resid desulf.
	Hydrogen MMcfd	40.0	Steam meth reforming.
	Flexicoker	22,000	Fluor on all units. 2nd half 1982.
	Polymeriz	3,200	
	Coke	20 t/d	
Norco, La.	Hydrogen MMcfd	31.0	96.0 total cap. Steam methane reform
	Dimersol	9,000	
Sound Refining— Tacoma, Wash.	Tenneco—Chalmette, La.		
	Crude	20,000	31,500 total cap. Dec. 1983
Texaco—Convent, La.	Modernize	36,000	\$400 MM. Fluor over all.
	FCC	27,000	Early 1984 on all units.
	HDT	29,000	Gaso.
	HF alky	....
	Jet, diesel	....
Port Arthur, Tex.	Hydrocrack	35,000	Vac resid. Fluor. 1985.
	Hydrogen MMcfd	62.5	Partial oxidation. 1984.
*Texas City Refining— Texas City, Tex.	Cat reform	40,000	Fluor. Mid 1983.
Tosco—Duncan, Okla.	Hydrotreat	15,000	Expan. Butadiene. Eng: Jacobs. 1983.
	Hydroref	45,000	SR dist.
Total Petroleum—Alma, Mich.	Hydrocrack	4,000	Feed pretreat. Parsons. 1983.
	Hydrocrack	7,000	Eng. stage. 1983.
*Union Oil of California— Lemont, Ill.	Hydrocrack	7,000	Eng. stage. 1983.
	Delay coker	2,611	Foster Wheeler. Early 1985.

ABU DHABI

Abu Dhabi National Oil— Ruwais	Vac	46,000	Snamprogetti over all.
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	Hydrogen MMcfd	59.0	1984 on all units.
	Hycrack	27,000	Dist upgrade.
	Coke	3,213	\$200 MM. Planned.
Umm El Nar	Crude expan	60,000	75,000 b/d total cap. \$270
	Dist HDT	23,000	MM. Kellogg over all. Aug.
	Cat reform	11,000	1983.

ARGENTINA

aura SA et al—			
San Lorenzo	New ref	120,700	Planned.
	Vac dist	70,700	
	FCC	26,500	
	Kerosine	2,300	
	Hydrotreat	15,900	
	LPG	2,300	
	Coking	33,300	
aura SA—			
Bahía Blanca	Crude	12,000	24,000 total cap. Eng. Kellogg. 1982 on all units.
	Vacuum	11,300	New. Kellogg.
	Visbreak	3,800	New. Kellogg.
	FCC	6,300	New. Kellogg.
	Asphalt	1,900	New.
PF—Ensenada	Vac	31,450	107,307 total cap. Eng. Foster Wheeler Iberia. 1986.
	Coke	826 mt/d	1,472 mt/d total cap. 1986.
	FCC	28,305	72,335 total cap. 1986.
	Cat HDT	9,435	New. 1986.
Lujan de Cuyo	FCC	20,757	40,256 total cap. Eng. Foster Wheeler Iberia. 1986.
	Cat HDT	12,580	New. 1986.
	Coke	769 mt/d	1,819 mt/d total cap. 1986.

AUSTRALIA

ital Refineries Australia—			
Matraville	Crude	18,000	28,000 total cap. 1986. on all units
	Vac	5,000	11,000 total cap.
	FCC	10,000	New.
	Cat reform	8,000	New. Semi bimcat.
	Hydrocrack	2,000	New. Dist upgrade.
	Hytreat	25,000	New. Naph desulf and sr dist.

AUSTRIA

MV AG—Schwechat	Isom	8,000	C ₅ - ₆ feed. Planned. 1984.
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BELGIUM

patros—Antwerp	FCC	27,000	Lic. UOP. Eng. Lurgi. 1982 on all units.
	Visbreak	25,000	Lic. Lummus.
	HF alky	6,000	Lic. Phillips. Eng. Kellogg.

BORNEO

unei Shell Petroleum—Seria	New ref	10,000	Design-eng: Fluor. 1983
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BRAZIL

TROBRAS—			
Setim, MG	Crude	60,300	132,700 total cap. JGC Corp. over all. 1982 all units.
	Vac.	33,100	63,300 total cap.
	FCC	17,100	30,700 total cap.
	HDS-Nar	10,200	New. 1982
	HDS-Di	25,000	New. 1982.
	Hydrogen MMcfd	5.0	Strn naph reforming. New.

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Canoas, RGDS	Crude	90,500	162,900 total cap. JGC. 1984 on all units.
	Vac	54,300	89,300 total cap.
	FCC	24,100	37,200 total cap.
	Delay coking	21,100	New.
Cubatao, SP	Alky, hf	3,700	New. Phillips proc. 1984.
Paulinia, SP	FCC	37,200	77,000 total cap. Kellogg. 1984.

BURMA

Petrochemical Industries Corp.—Syriam	Delay coke	5,200	Eng stage. Con: Mitsubishi HI. Apr. 1985.
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CANADA

*Carmont Group—			
Montreal	Heavy oil upgrader	\$1.2 billion. Phase 2. Eng. Fluor.
Chevron Canada Ltd.—			
Burnaby, B. C.	Crude	10,000	45,000 total cap. Mid 1983.
Gulf Canada Ltd.—			
Edmonton	Syncrude	45,000	\$153 MM expansion to handle tar sands primarily. Bechtel over all. 1983.
	Hydrotreat	25,000	
	Hydrocrack	25,000	
	Hydrogen MMcfd	30.0	
Imperial Oil Ltd.—			
Edmonton, Alta.	Ref expan	45,000	200,000 total cap in 2 stages. \$290 MM. 1984.
Sarnia, Ont.	Expan	....	\$24 MM. Hydrocrack and hydrogen units. June 1983.
Shell Canada Ltd.—			
Burnaby, B.C.	Crude	10,000	35,000 total cap. Lummus. 1984.
Shell Canada (60%), Husky Oil (40%)—			
Scottford, Alta.	New ref	60,000	Syncrude feedstock. \$980 MM. Con: PCL-Braun-Simons. Mid 1984
	Benzene	4,800	
*Suncor Inc.—Sarnia	Crude	16,000	Eng. stage. 1984 on all units.
	Hydrocrack	20,000	
	Hydrogen MMcfd	41.0	
Ft. McMurray	Syngas	5,700	Liquid recovery. Planning. 1986.
Ultramar Canada Inc.—			
St. Romuald, Quebec	Vac	15,000	35,000 total cap. Staff. 1983.
	FCC	30,000	Fluor Canada. 1983.
	Polymeriz	7,000	Fluor Canada. 1983.

CHILE

Empresa Nacional del Petroleo—Concon	Visbreak	10,500	Under study.
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CHINA

China National Tech. Import Corp.—Maoming ...	Hydrocrack	16,066	Two units. JGC Corp. 1982.
Nanking	Thermal crack	20,082	Chiyoda. 1983.
	Hycrack	24,100	Union process.
	Naph HDT	11,300	UOP process.
	Cat reform	22,400	UOP process.
	LPG	7,900	Lurgi.
	Hydrogen MMcfd	6.0	Lurgi.

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CHINA, TAIWAN			
Chinese Petroleum Corp.— Kaohsiung	FCC	22,600	Mid 1983.
	Hydrotreat	54,250	Resid desulf. 1985-86.
	Hydrotreat	22,600	Cat crack feed pretreat. Mid 1983.
	hf Alky	3,200	Eng. CTCL and Foster Wheeler. Mid 1984.
	Arom, BTX	5,694	21,024 total cap. Mid 1983.
Lin Yuan	Resid HDT	....	Planned.
	Hydrogen	10.7	Eng. stage. \$3.5 MM. Petrocarbon Dev. 1982.
	MMcfd	....	Planned.
Ta Lin Pu	Resid HDT	....	Planned.
Tao-yuan	Crude	27,100	117,510 total cap. Eng. CTCL. Mid 1983.
	Vac	32,600	New. Mid 1984.
	Cat reform	6,780	20,340 total cap. Semi bimcat. Mid 1983.
	HDS	18,080	Vac gas oil. IFP process. Tech- nip & CTCL. Mid 1984.
	HDT	6,780	20,340 total cap. Feed pretreat. Mid 1983. Eng. CTCL. 1984
	Hydrogen	10.0	....
	MMcfd	....	....
Changwa	New ref	300,000	Eng. Lummus. \$305 MM.
COLOMBIA			
Empresa Colombiana de Petroleos— Cartagena	Visbreak	20,000	New. Technipetrol on all units. March 1983.
	FCC	14,000	29,000 total cap. Feb. 1983.
	Cat Poly	2,200	5,800 total cap. Oct. 1983.
CONGO			
Hydrocongo— Pointe Noire	New ref	21,500	Sybeta-Voest. Under const: Humphreys & Glasgow
CUBA			
Refineria Nico Lopez	Cat unit	18,300	Expan. Eng. stage. IMP. 1983.
ECUADOR			
CEPE—Esmeraldas	Crude	13,006	63,288 total cap. UOP.
	Vac	2,434	28,215 total cap.
	Visbreak	2,172	13,561 total cap.
Peninsula Sta. Elena	New ref	75,000	\$1.4 billion. UOP.
	Vac	33,500	....
	FCC	14,800	....
	Visbreak	18,600	....
EGYPT			
Alexandria Petroleum— (El-Mex) Alexandria	Crude	42,500	159,500 total cap. Planning. 1988.
EGPC—Asyut	Crude	106,000	Planning-2 stages. 1986.
El Nasr—(El Ameria)	Crude	11,000	75,000 total cap. Late 1982.
Alexandria	Crude	42,500	117,500 total cap. Planning. 1988.
	Reform	10,000	Semi bimcat. Lic. UOP. 1984.
	Hydrotreat	10,500	Feed pretreat. UOP. 1984.
	Hf alky	842	Snamprogetti. 1984.
	Arom	379	BTX. UOP. 1984.
	Lubes	316	Expan. 1984.
Suez	Crude	21,000	78,500 total cap. Begin const. 1983
	Crude	125,000	Planning complex. 1986 on all units.
	Vac	....	SR dist.
	Hydrotreat	....	Dist upgrade.
	Hydrotreat	....	....
	Hydrogen	Nat gas reform.
Suez Oil Processing— Mostorod	Crude	21,000	114,500 total cap. Mid 1983.

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Suez	Crude	42,500	Planning. 1988.
	Crude	61,500	Flash reconstruct. 1984 on all units
	Delay coke	20,000	Reconstruct.
	Hydrotreat	12,000	Mid dist. Reconstruct.
	Hydrofinish	231	....
	Hydrotreat	19,000	Feed pretreat. Under const. Technipetrol.
	Reform	14,000	Semi bimcat. Under const. Technipetrol.
	Hydrotreat	9,000	Reconstruct.
	Arom	526	BTX. Lic. UOP.
	Lubes	526	Expan.
	Coke	1,200	....
	Hydrogen	7.0	Reconstruct.
	MMcfd	....	....
Tanta	Crude	17,000	42,500 total cap. Planning. 1988.
FRANCE			
Asvahl (CFR, Elf France, IFP)—Solaize (next to Feyzin ref.)	Heavy oil- resid upgrade	20,000	Experimental complex: includes visbreak, hydrovis- break, cat HDT, other units. Eng. services: Technip. Early 1983
CFR—Mardyck	Poly	7,000	New. Foster Wheeler. Late 1982.
SFBP—Lavera	FCC	22,000	FW Francaise. Early 1985.
GERMANY, EAST			
Schwedt	Visbreak	12,200	Toyo and Mitsui. 1982.
	Alkylate	3,200	....
	Benzene	5,000	....
	Xylene	1,162	....
Veb-Leuna— Leuna	Crude	36,000	(Romanshino crude).
	Visbreak	26,000	Under const. Voest-Alpine and Lurgi.
GERMANY, WEST			
Deutsche BP—Hamburg	Visbreak	16,100	Snamprogetti on both units. Fall 1982.
	Hydrofine	4,500	....
Deutsche Shell AG— Godorf	FCC	12,000	\$289 MM. Lummus. 1984.
	Naph HDT	22,000	Edeleanu. 1983.
	Platformer	22,000	Edeleanu. 1983.
	Heavy dist.	21,000	Edeleanu. 1983.
	High vac	46,720	Conversion. Eng. Comprimo. 1983.
Hamburg	Lube	....	1983.
Deutsche Texaco— Heide	Hydrotreat	9,000	Naph desulf. Edeleanu. Nov. 1982.
Elf Mineraloel— Speyer	Desulf	....	\$588 MM. New units.
	Vac dist	....	....
	FCC	....	....
	Alky	....	....
	Vac deasphalt	....	....
Erdöl-Raffinerie— Mannheim	Hydrorefine	5,400	Eng. Krupp-Koppers over all. 1983.
	Fraction-gaso	5,400	Reformat.
	Fraction	7,200	....
*Erdölwerke Frisia— Emden	Hydrotreat	3,000	Staff forces. Dec. 1982.
*Esso AG—Karlsruhe	Delay coke	13,700	Foster Wheeler. Early 1984.
OMW—Karlsruhe	Atm. resid	58,400	Modify. Eng. Linde. Under const.
URBK—Wesseling	Vac dist	50,000	Eng stage. Uhde on both units. 1983.
	Cat reform	10,000

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eba Oel— Gelsenkirchen	Crude Hydrocrack Vac dist Hydrogen MMscf	10,000 27,800 36,300 2.8	Eng: Krupp-Koppers. 1982. Lurgi. 1983. 46,900 total cap. Fluor. 1983. KTI/Huls 1982.
intershall—Mannheim	Cat reform HDT Arom. benzene	4,600 4,600 5,300	18,400 total cap. Semi bim- cat. Lurgi. 1982. 18,400 total cap. Feed pretreat. 1982. Krupp-Koppers. 1982.
Salzbergen	HDT	250	1,350 total cap. Lube oil pol- ish. Heckmann. 1982.

GHANA

hanaian Italian Petroleum— Tema	Crude Cat reform	14,000 1,625	42,000 total cap. 1985. 8,125 total cap. Semi concat. 1984.
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GREECE

otor Oil Hellas— Corinth	Visbreak	3,000	Revamp. Eng: Technipetrol. May 1983.
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HUNGARY

unai KV—Százhalombatta	FCC expan Arom Alky	20,000 9,800 2,500	Under const. Procofrance. \$50 MM. Late 1983 BTX. Under const. Olajterv- OKGT. 1985. Engineering call for tenders. Late 1985.
omárom—Komárom	Vac dist Paraffin	14,000 2,400	Olajterv-OKGT. 1983. Olajterv-OKGT. 1986. Both units in preparation.

sza Petroleum— Leninváros	Visbreak	14,000	Engineering call for tenders. 1985
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la Petro. Ind.— Zalaegerszeg	Atm-vac distil	8000	Under const. Olajterv- OKGT. 1984.
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INDIA

harat Petroleum Corp.— Mahul, Bombay	Crude FCC Vac dist	20,000 12,000 12,000	140,000 total cap. Eng: EIL on all units. \$125 MM over all expan. 1984. 29,000 total cap. 29,000 total cap.
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chin Refineries Ltd.—Ambalamugal	Crude Vac dist FCC	24,000 30,000 20,000	90,000 total cap. Eng: EIL on all units. \$107 MM over all expan. 1984. 37,420 total cap. New.
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industan Petroleum— Visakhapatnam	Crude Vac dist FCC	60,000 26,000 12,000	88,850 total cap. Eng: EIL on all units. \$125 MM over all expan. 1984. 40,425 total cap. 19,700 total cap.
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dian Oil Corp.— Barauni	Delay coke	10,000	Eng: EIL. \$40 MM expan. 1984.
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adras Refineries Ltd.—Manali	Crude Vac dist FCC	56,000 26,000 12,000	112,000 total cap. Eng: EIL on all units. \$110 MM over all expan. 1984. 46,000 total cap. New.
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会社・所在地	프로젝트	精製能力 (b/d)	備考・完工時期
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INDONESIA

Pertamina—Balikpapan, East Kalimantan	Crude expan Vac dist LPG recover Platform Hydrocrack	200,000 81,000 6,600 20,000 55,000	275,000 total cap. \$1 billion. Bechtel over all. UOP design. Oct. 1983. 95,000 total cap. Oct. 1983. New. Oct. 1983. New. CCR. July 1983. New. Resid upgrade. July 1983.
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Cilacap, Java	Crude Vac Visbreak Platform Naph HDT Unibon HDT HDT	200,000 19,227 55,600 20,000 18,356 18,536 11,932	300,000 total cap. \$857 MM. Fluor over all. UOP design. Sept. 1983. Dec. 1983. 70,200 total cap. Dec. 1983. 32,200 total cap. Sept. 1983. Sept. 1983. Sept. 1983. Therm dist. Dec. 1983.
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Dumai, Sumatra	Kero HDT Lubes Deasphalt Vacuum	7,618 500 4,481 92,600	Dec. 1983. 1,800 total cap. Dec. 1983. \$950 MM. Technicas Reuni- das, Centurion.
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	Delay coke LPG recover Platform Unibon Dist HDT Hydrogen MMcfd Coke	35,200 4,085 8,360 53,000 12,065 74.5 7,759	Sept. 1983. Aug. 1983. Sept. 1983. Aug. 1983. Oct. 1983. Sept. 1983 Oct. 1983.
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IRAQ

Seorgi-State Establishment for Oil & Gas Baiji	New ref Vac dist Cat reform Cat reform	200,000 65,000 22,000 16,500	Chiyoda (over all) with Snamprogetti. Dec. 1983 on all units. Eng: Technipetrol. Con: Technoexport. June 1984.
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	HDS-gas oil Unibon 11°C Kero HDS Naph HDS Hydrogen MMcfd	31,000 38,000 28,000 41,000 64.0	KTI
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*Basrah	Vac Lube complex	17,650 2,008	Snamprogetti. 1983. Snamprogetti. 1983.
Qayarah	Asphalt-2 Asphalt-3	2,500 2,400	Eng stage. Ingeco. 1983.

ISRAEL

*Oil Refineries Ltd.— Haifa	FCC Lube expan.	3,500 400	18,500 total cap. Apr. 1983. 1,000 total cap. Apr. 1984.
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ITALY

Anic—Gela	Hydrotreat	2,300	9,300 total cap. 1982.
Saras—Sarroch	Vac Cat reform	17,500 30,000	107,500 total cap. Snampro- getti. Apr. 1983. CCR bimetallic. Replaces two units. Snamprogetti. Nov. 1983.

Sarom—Ravenna	Visbreak Isom Hydrotreat	40,000 4,000 8,000	Snamprogetti. Late 1983 on all units C ₂ -C ₆ feed. Snamprogetti. 16,000 total cap. SR dist. In- geco.
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会社・所在地	프로젝트	精製能力 (b/d)	備考・完工時期
JAPAN			
General Seikyū—Sakai	FCC	30,000	New. Oct. 1984.
Kashima Oil—Ibaragi	Cat reform	5,000	Cyclic bimcat. JGC. Nov. 1983.
	Hydrotreat	6,500	14,500 total cap. Feed pre-treat. JGC. Nov. 1983.
Nippon Petroleum			
Refining—Kudamatsu	Crude	105,000	April 1983.
Muroran	Hydrotreat	25,000	Chevron process. Chiyoda on both units. Apr. 1983.
	Hydrogen	40.0	
	MMcfd		
Negishi	Visbreak	15,000	New. Chiyoda. Apr. 1983.
Seibu Sekiyū KK—			
Onoda	HDS	40,000	Planned.
JORDAN			
Jordan Petroleum Refining—			
Zarka	HDS	4,230	Naph. Procon.
	Vac	7,400	
	LPG	74,000	
	Hydrogen	7.9	KTI. New.
	MMcfd		
KOREA			
Yukong Ltd.—			
Ulsan	Cat reform	18,904	Contin-conven multimetallic. IFP. June 1985 on all units. 38,990 total cap. Pretreat cat reform feed. IFP.
	Hydrotreat	18,900	7,752 total cap. BTX. UOP.
	Arom	4,982	
	Hydrogen	6.0	
	MMcfd		
KUWAIT			
Kuwait Oil—			
Mina Al-Ahmadi	Crude	170,000	JGC contractor over all units. 1984.
	Crude	100,000	1985.
	Eocene crude	18,000	1984.
	Vacuum	77,000	1985.
	Kero desulf	15,800	Lic: IFP. 1984.
	Gas oil desulf	55,500	Lic: IFP. 1984.
	FCC	30,000	New. 1986.
	Hycrack	38,000	Lic: Chevron. 1985.
	Desulf	66,000	Atmos resid. 2 units. Lic: Union. 1984 and 1985.
	Desulf	66,000	
	Hydrogen	84.0	Two units. Lic: Foster Wheeler. Con: JGC. 1984.
	MMcfd		
	Hydrogen	84.0	Two units. Lic: Foster Wheeler. Con: JGC. 1985.
	MMcfd		
	Hydrogen	170.0	CF Braun. 1986.
	MMcfd		
	Hydrogen	89.4	Recovery. JGC. 1985
	MMcfd		
Mina Abdulla	Crude	300,000	\$2.3 billion. CF Braun contractor over all. 1986 on all units. New.
	Vacuum	123,190	
	Hydrotreat	67,160	Kerosine
	Hydrotreat	17,010	Diesel
	Hydrotreat	21,360	Naphtha.
	Hydrocrack	60,570	Vac gas oil.
	Desulf	111,110	Atmos resid.
	Delay coke	66,140	New.
LIBERIA			
Libera Petroleum			
Refining—Monrovia	Visbreak	8,000	Planned.
LIBYA			
Ras Lanuf Oil & Gas			
Processing Co.—			
Ras Lanuf	Crude	220,000	Snamprogetti. Mar. 1983.
	Vac	26,500	1985.
	Cat reform	19,500	1985.
	Cat HDS	27,000	Naphtha. 1985.
	Coke	450	1985.

会社・所在地	프로젝트	精製能力 (b/d)	備考・完工時期
MADAGASCAR			
Solitary Malagasy			
Raffinerie de Tamatave—			
Tamatave	Vac	1,200	Litwin over all. June 1982 on all units.
	Visbreak	6,900	
	Hydrotreat	3,700	Arom satur. SR dist. Visbreak.
MALAYSIA			
*Petronas—Malacca	New ref	120,000	Bids out. 1987.
Kerteh, Trengganu	Crude top	30,000	JGC and C. Itoh on both units. \$200 MM. 1983.
	LPG	1,400	
Shell Refining—Port			
Dickson	Platformer	9,000	Edeleanu. 1982.
MAURITANIA			
*Soc. Mauritanense des			
Industries du Raffinage—			
Nouadhibou	Refinery	23,000	Reactivate. MW Kellogg over all. Dec. 1982.
MEXICO			
Petroleos Mexicanos:			
Jalisco	New ref	....
	Cat reform	....	Design: IMP.
Azcapotzalco	Hi vac	25,000	Eng stage. 1984.
Cadereyta, Nuevo Leon	Visbreak	50,000	Dec. 1983.
Lazaro Cardenas, Mich.	Atm. dist.	150,000	Eng. stage. IMP over all.
	Vac	90,000	1983 on all units.
	HDS	36,000	Naphtha.
	HDS	25,000	Mid dist.
	Reform	30,000	Naphtha.
	Frac-treat	12,152	
Madero, Tamaulipas	Crude	150,000	335,000 total cap. Eng stage. IMP on both units. Dec. 1983.
	Vac	80,000	165,000 total cap. Eng stage. Dec. 1983.
Minatitlan, Veracruz	Visbreak	50,000	Eng stage. Dec. 1983.
	Vacuum	50,000	Dec. 1983.
Salina Cruz, Oaxaca	Crude	150,000	320,000 total cap. IMP over all. Dec. 1983 on all units.
	Vac	80,000	155,000 total cap.
	Visbreak	50,000	
Tula, Hidalgo	Crude	150,000	300,000 total cap. Under const. IMP over all. Dec. 1982 on all units.
	Vac	90,000	155,000 total cap.
	Hi vac	40,000	
MOROCCO			
Samir—Mohammedia	Industrial	2,000	Lube complex. \$150 MM. Technip & Tecnipetrol. Design: Hydrocarbon Eng. Proc: BP-CFR-Texaco. Mid 1984.
	Asphalts	2,000	
	Paraffins	400	
NETHERLANDS			
BP Raffinaderij Nederland—			
Europort	Hydrofiner	10,000	HDT to HDF conversion. John-Brown/C&R. Late 1982.
Chevron Pet. Maat.—			
Pernis	Therm crack	21,000	Lummus. 1982.
Eso Nederland—			
Botlek, Rotterdam	Flexicoker	59,000	New. \$2 billion. Fluor. Early 1985.
Shell Nederland—			
Pernis	Modernize	....	Badger. 1982.
	Hydrogenation	....
	High vacuum	....
	Alky	....
NEW ZEALAND			
New Zealand Refinery			
CL—Whangarei	Crude expan	80,000	Badger with Chiyoda. \$820 MM. Mid 1985 on all units. Chiyoda.
	Vac	38,116	

会社・所在地	プロジェクト	精製能力 (b/d)	備考・完工時期
	Hydrocrack	24,189	Chiyoda.
	Hydrodesulf	10,262	Chiyoda.
	Hydrogen MMcfd	47.2	Eng. stage. Uhde. 1983.
NIGERIA			
Nigerian National Petroleum—Kaduna	Crude	9,000	Planned.
Warri	Crude	20,000	120,000 total cap.
	Hf alkyl	3,000	New. Lummus. 1983.
	Cat poly	700	Planned.
*Rafinor A/S—Mongstad	Hydref	3,250	TIP unit. Kvaerner Eng. Mid 1983.
PAKISTAN			
National Refinery— Korangi	Crude	14,010	56,110 total cap. Apr. 1984.
	Vacuum	8,320	14,010 total cap. Apr. 1984.
	Vacuum	24,360	38,370 total cap. Sept. 1986.
	Lube oil	1,920	3,530 total cap. Apr. 1984.
	Asphalt	1,940	3,760 total cap.
	Cat reform	6,890	9,100 total cap. Semi concat. Sept. 1986.
	Hycrack	12,330	Dist upgrade. Sept. 1986.
	Hycrack	12,030	Resid upgrade. Sept. 1986.
	Hydrotreat	6,890	9,100 total cap. Feed pretreat. Sept. 1986.
Pakistan Refinery Ltd.—Karachi	Revamp	2,000	Vac dist, deasphalt. Eng. Lummus. 1984
	Lube	2,010	
PERU			
Petroleos del Peru— Bayovar, Piura	New ref	100,000	Proposed. 1986.
	Lubes	120 mt/y	
Iquitos, Loreto	Crude	10,500	11,700 total cap. Techplant-Ingest and Technip. \$23.5 MM. Early 1983.
La Pampilla	Vacuum	1,000	12,000 total cap. Staff. 1983.
	Vacuum	33,000	45,000 total cap. Planned. 1985.
	Visbreak	18,000	Planned. 1986.
	FCC	1,300	8,000 total cap. Staff. 1983.
	FCC	15,000	23,000 total cap. Planned. 1985.
Pucallpa	Crude	1,500	4,000 total cap. Planned. 1983.
Talara	Crude	10,000	75,000 total cap. Planned. 1983.
	Vacuum	6,000	27,500 total cap. Planned. 1983.
PORTUGAL			
Petrolgal—Oporto	Lube	.....	Expansion. Eng-con: Foster Wheeler. 1983.
QATAR			
Qatar General Petroleum— Umm Said	New ref	45,250	\$140 MM. Lic: Kellogg & UOP. Const: Technip. June 1983
	Cat reform	9,010	Semi bimcat.
	Hydrotreat	9,010	Feed pretreat
	Hydrotreat	3,525	Naphtha desulf
	Hydrotreat	7,685	SR distillate.
	Hydrotreat	10,850	Distillates.
SAUDI ARABIA			
Petromin-Ashland— Yanbu	Lube ref	5,000	1985.
Petromin and Petrola International-Athens (50-50)—Rabigh	New ref	325,000	\$3 billion. Eng: Lummus. Con: Petrola Int'l. Under const. 1983.
Petromin, Chevron, Texaco—Jubail	Lube ref	12,000	Design: Lummus. \$1 billion.

会社・所在地	プロジェクト	精製能力 (b/d)	備考・完工時期
			1984-86. (1986 on stream).
Petromin-Mobil— Yanbu	New ref	263,000	Chiyoda. Under const. 1984.
	Vac dist	107,000	
	Reform	32,000	
	Visbreak	40,000	
	HDT	83,000	
	FCC	66,000	
	Alky	12,500	
	FCC-gaso	40,500	
Petromin-Shell— Jubail	New ref	272,000	Chiyoda, Parsons, Technip. \$1.9 billion. 1985.
	HDS	63,000	Naph. Chiyoda. 1984
	Hydrogen MMcfd	111.5	Uhde. 1983.
Yanbu Domestic Refinery— Yanbu	Crude dist	170,000	Chiyoda over all. 1982.
	Cat reform	35,000	Cyclic bimcat.
	Hydrotreat	35,000	Feed pretreat.
	Hydrotreat	15,200	Kero.
SENEGAL			
Societe Africaine de Raffinage—M'Bao	Crude	7,400	Expan. Heurtey over all. 1983 on all units.
	Cat reform	600	Expan.
	HDS-gas oil	4,200	New.
SINGAPORE			
Singapore Refining— Pulau Merlimau	Cat reform	12,000	Cyclic concat. JGC Corp. Feb. 1983.
	Visbreak	29,000	JGC. \$45 MM. July 1983.
	Hydrotreat	12,000	Naphtha desulf. JGC. Feb. 1983.
	Hydrogen MMcfd	12.5	Cryogenic. JGC. Feb. 1983.
SPAIN			
Compania Española de Petroleos— San Roque, Cádiz	FCC	25,000	1985.
Compañia Iberica Refinadora de Petroleos— La Coruña	Vac	15,000	Initec. Early 1982 on all units.
	FCC	25,000	New. Foster Wheeler.
	Delay coking	15,000	New. Foster Wheeler.
	Coke	640 t/d	New. Foster Wheeler.
Enpetrol—Cartagena	Hydrocrack	20,000	\$200 MM.
Puertollano	Vac	49,000	61,000 total cap. \$250 MM. Late 1984 on both units.
	FCC	23,500	Exxon process. Technical: IHHI and Metal. Duro Felguera.
Tarragona	Visbreak	30,000	Lummus-Shell process. \$60 MM.
Petroleos del Mediterraneo— Castellon de la Plana	Vac dist	24,200	Lic: Eresco. Con: Foster Wheeler. Dec. 1983 on all units.
	FCC	14,000	
	Asphalt	5,020	
	Hydrotreat	5,200	35,200 total cap. sr dist.
Petronor—Somorrostro	Vac	82,600	IMP-FW Iberica-Initec. 1984 on all units.
	Visbreak	36,700	IMP-FW Iberica.
	FCC	36,700	MW Kellogg-FW Iberica.
	Hydref	32,100	Feed pretreat. UOP and Tecnicas Reunidas.
	Hydrogen MMcfd	11.0	Refin gas steam reform. Kellogg and Tec-Reun.
Union Explosivos Rio Tinto—La Rabida	Flexicrack	12,500	Exxon-Foster Wheeler. Mid 1984.

会社・所在地	プロジェクト	精製能力 (b/d)	備考・完工時期
	Hydrogen MMcfd	6.0	Union Carbide. 1983.
SRI LANKA			
Ceylon Petroleum Corp.— Sapugaskanda	Dist hycrack	13,000	UOP process. Proposed. \$80 MM. 1982.
ST. LUCIA			
Amerada Hess— St. Lucia	New ref	150,000	
SWEDEN			
Skandinaviska Raffinaderi— Lysekil	FCC	20,000	Foster Wheeler. \$110 MM. 1984.
	Visbreak	41,000	New. Foster Wheeler U.K. Nov. 1982.
SWITZERLAND			
Raffinerie de Cressier— Cressier	Modernize	.....	Fluor has design study.
TANZANIA			
Tanzanian & Italian Petro- leum Refining— Dar Es Salaam	Vac	2,800	New. Late 1983.
THAILAND			
Esso Standard Thailand—Sriracha	Crude	27,000	73,000 total cap. \$42 MM. 1984.
*Thai Oil Refinery— Sriracha	Hydrocrack	60,000	120,000 total cap ref expan. \$820 MM. Foster Wheeler over all. Technip, Procofrance, Davy McKee. Late 1984.
TRINIDAD			
Trinidad & Tobago Oil CL—Point Fortin	Vac	45,000	1986 on all units.
	Visbreak	13,000	
	Hydrocrack	11,000	Dist upgrade.
	Hydrotreat	8,000	SR dist.
	Hydrogen MMcfd	38.0	Steam meth reform.
TUNISIA			
Government—Gabes	New ref	150,000	
STIR—Bizerte	Crude	110,000	144,000 total cap.
	Vac	40,000	
	Visbreak	19,000	Lummus. Early 1983.
	Cat HDC	17,000	
	Asphalt	210	
	Hydrogen Nc/d	23.7	
TURKEY			
Istanbul Petrol Rafinerisi AS— Izmit	FCC	20,000	45,000 total cap. Planned. 1985.
Turkish Petroleum—Aliaga ..	Crude	100,000	Neftechimporexport. Late 1984
UNITED KINGDOM			
Esso Petroleum— Fawley	Vacuum	71,000	Proc. Erec & Bechtel. Con: Bechtel. 1982.
Lindsey Oil Refinery Ltd.— Killingholme, Lincolnshire ..	Visbreak	26,000	\$60 MM. Lummus Neder-land over all. 1983.
	Poly. gaso	1,900	
Mobil Oil CL— Coryton, Essex	Vac dist	30,450	73,450 total cap. Kelllogg. 1982 on all units
	FCC	25,500	35,000 total cap.
	HF alkyl	13,500	New.
	Isom	8,500	New.

会社・所在地	プロジェクト	精製能力 (b/d)	備考・完工時期
*Shell UK Ltd.— Cheshire	Hydrotreat	22,210	\$60 MM. Procon GB over all. 1984 on both units.
	Platformer	21,990	UOP concat regen.
Texaco Inc.— Milford Haven	Visbreak	25,000	Foster Wheeler. \$22.3 MM. Early 1984.
U.S.S.R.			
Chimkent	New ref	.....
Chardzhou	New ref	.....
Omsk	Gas feed fraction	51,107	Technip over all.
	HDS	21,925	Eng: Litwin.
Ufa	Gas feed fraction	51,107	Technip over all.
	HDA	21,925	Eng: Litwin.
VIRGIN ISLANDS			
*Amerada Hess—St. Croix ..	FCC	150,000	Two. \$500 MM. Late 1984 and 1986.
VENEZUELA			
Lagoven—East Venezuela ...	Distill and Delay coker	125,000	Eng stage. C-E Lummus. \$8 billion. 1988.
Amuay Bay	Lube	720	2 420 total cap. Fluor on all units. 1984.
	Flexicrack	47,300	99.2 total cap. Steam meth reform. 1984
	Hydrogen	5.7	
Maraven—Cardon	Vac	96,000	234,000 total cap. Chiyoda over all units. 1987.
	Hycrack	41,000	New. Resid upgrade. 1987.
	Hydref	13,000	45,000 total cap. Hvy. gas oil desulf. 1986.
	Hydrogen MMcfd	158	Partial oxid. 1987.
	C ₄ Isom	12,000	Davy McKee. 1983.
	hf Alky	18,300	22,600 total cap. Davy McKee. 1983.
Meneven—Puerto la Cruz	Crude	25,000	210,000 total cap. CF Braun. 1987.
	Vac	94,200	New. 1987 on all units.
	Visbreak	46,500	New.
	FCC	48,300	60,300 total cap.
	Hf alky	12,300	14,300 total cap.
YUGOSLAVIA			
Energoinvest—Bosanski Brod	Crude	67,800	Petrolinvest. 1982 on all units.
	Vacuum	23,200	Petrolinvest.
	Cat reform	13,500	Cyclic bimcat. Technip.
	Hydrotreat	20,200	Cat reform feed pretreat. Technip.
	Hydrotreat	2,390	Naph olefin. Petrolinvest.
	Hydrotreat	10,710	SR dist. Technip.
	Asphalt	8,200	Petrolinvest.
Industrija Nafta Zagreb— Lendava	Crude	44,000	57,500 total cap. CTIP and Polimex Cekop over all. 1984 on all units.
	Cat reform	9,500	Continuous CCR. Lic: UOP.
	Unibon	12,600	Lic: UOP.
INA—Rijeka	Wax hyfinish	476	Snamprogetti. 1983.
Zagreb	Cat HDT	2,300	Lube. 1984.
Novi Sad	Gas HDT	15,000	Technipetrol over all. Under const. 1982 on all units.
	Cat reform	11,000	
	Vac gas oil desulf	5,000	
Rafinerija Nafta— Pancevo	Platformer	.....	Lic: UOP. Eng-con: Foster Wheeler on all units. 1983.
	Naph HDT	.....
	Visbreak	20,000	Petrolinvest & Technip.
	Cat reform	.....	Contin. regen.