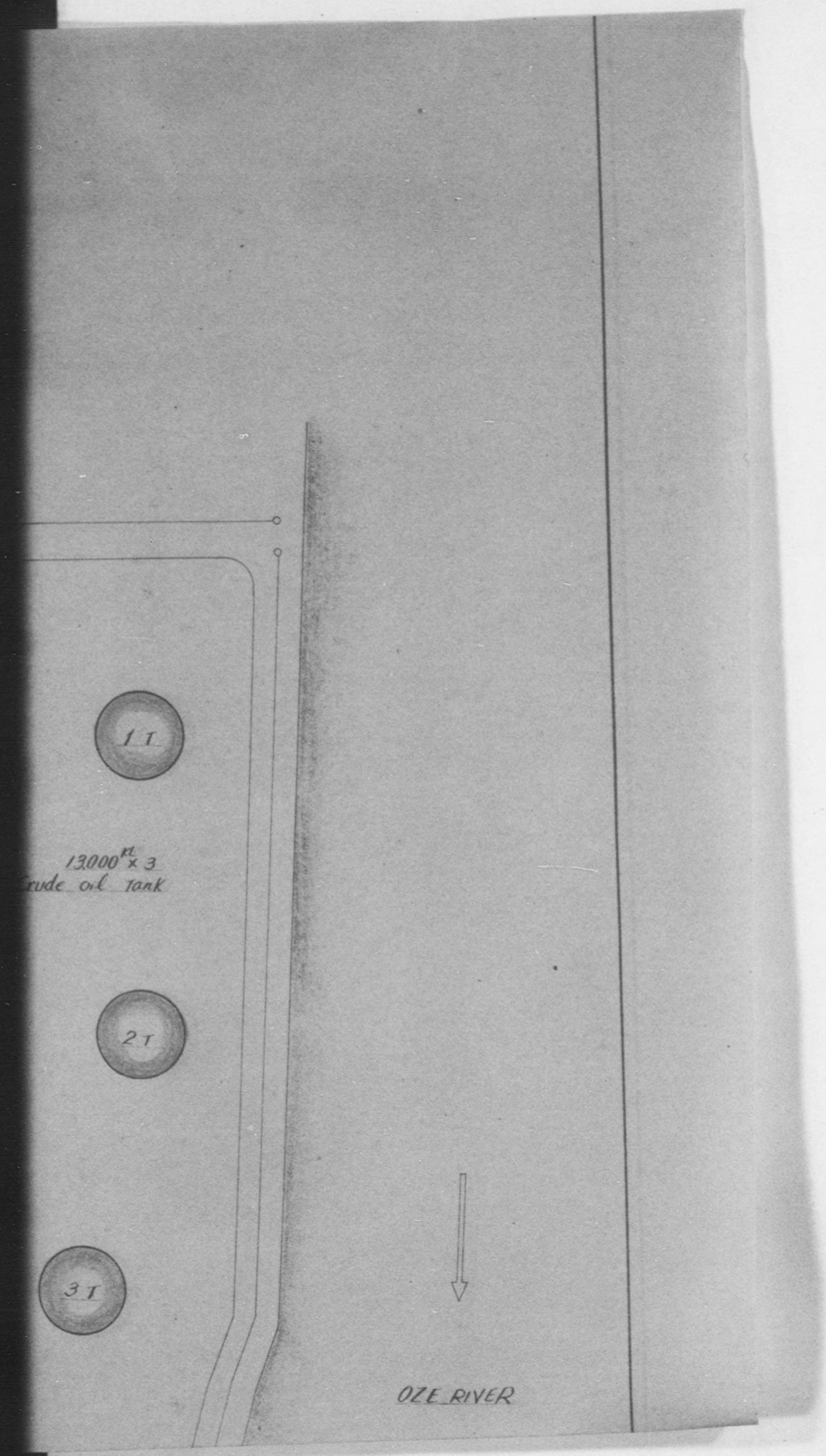
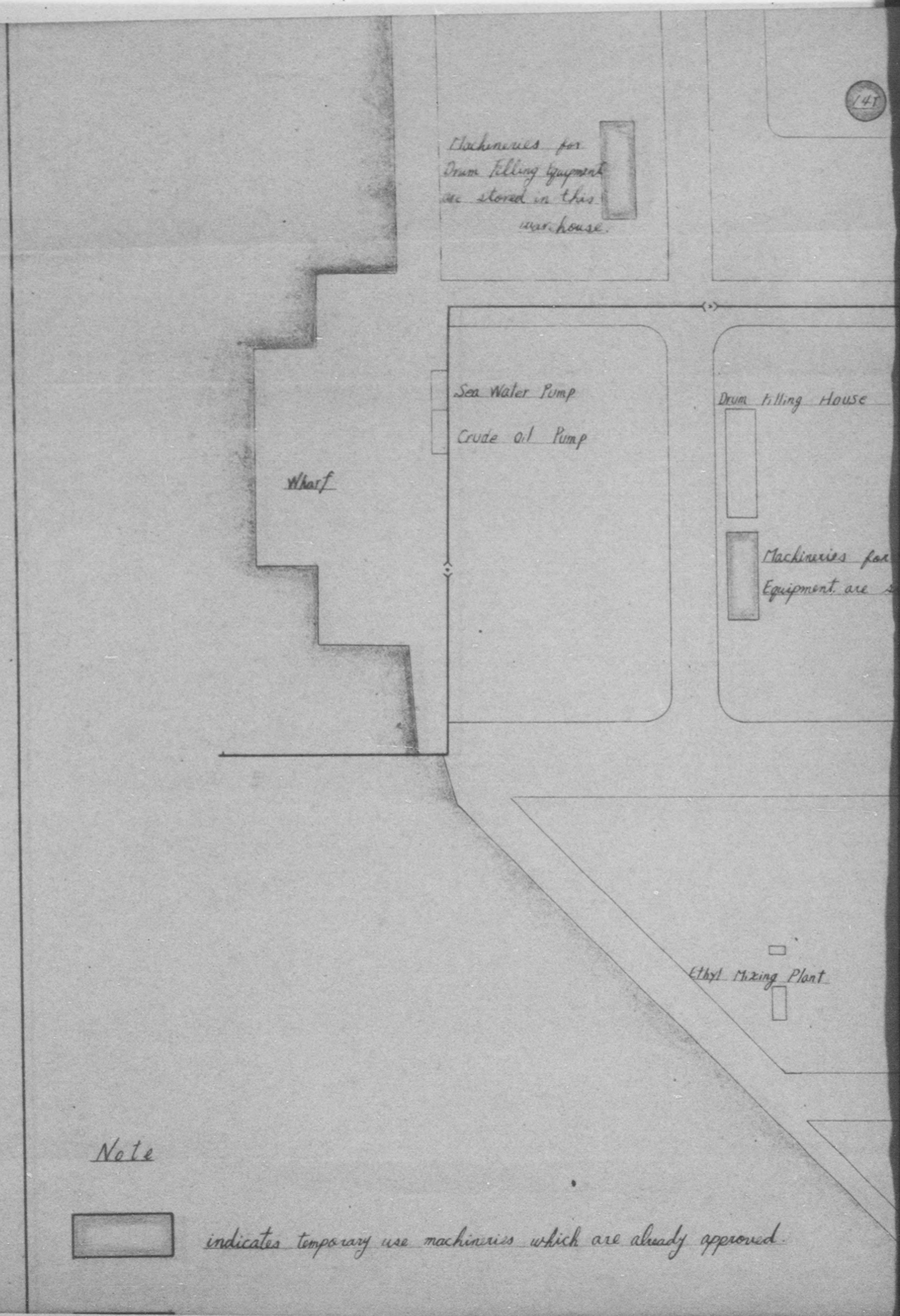
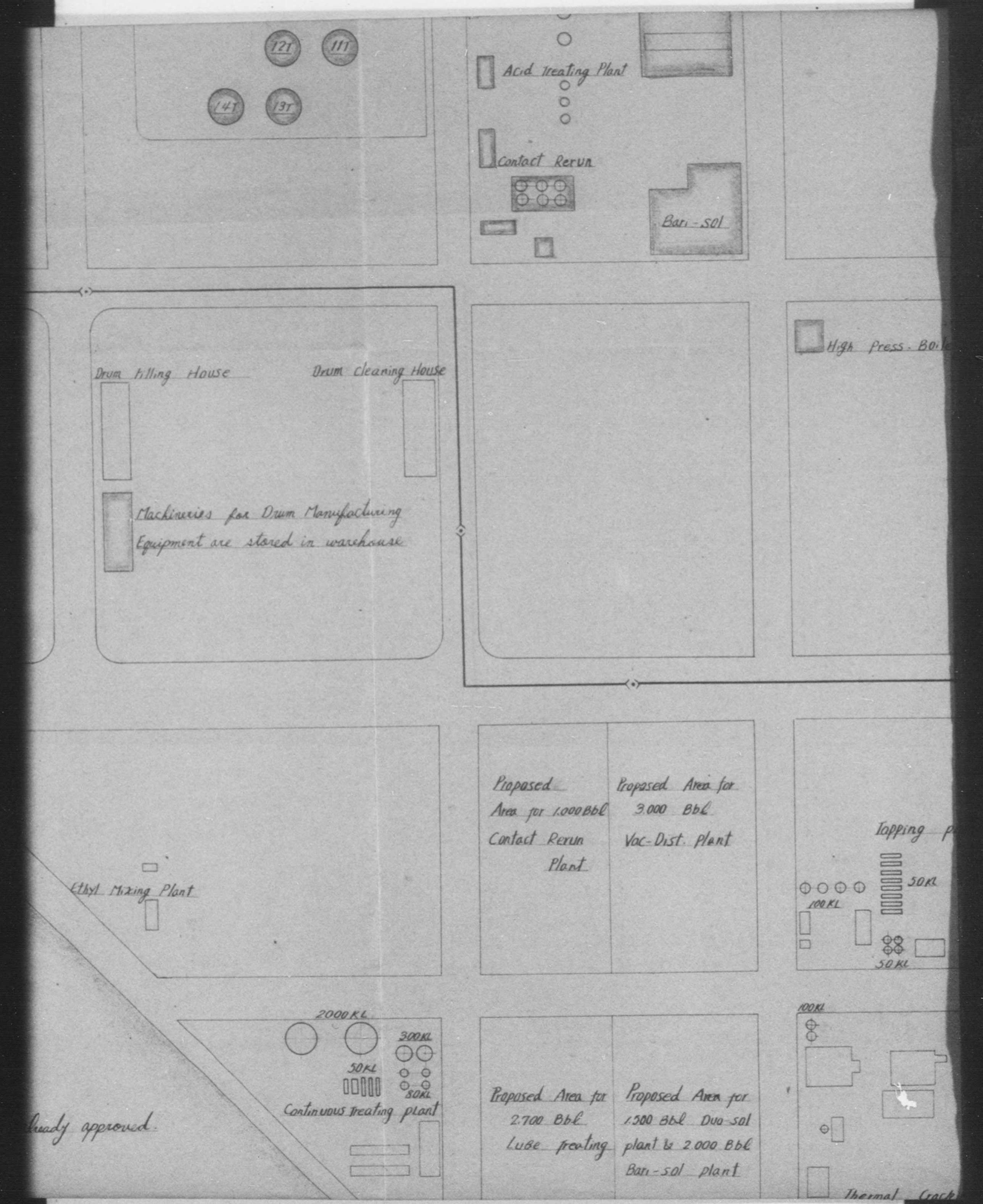
DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



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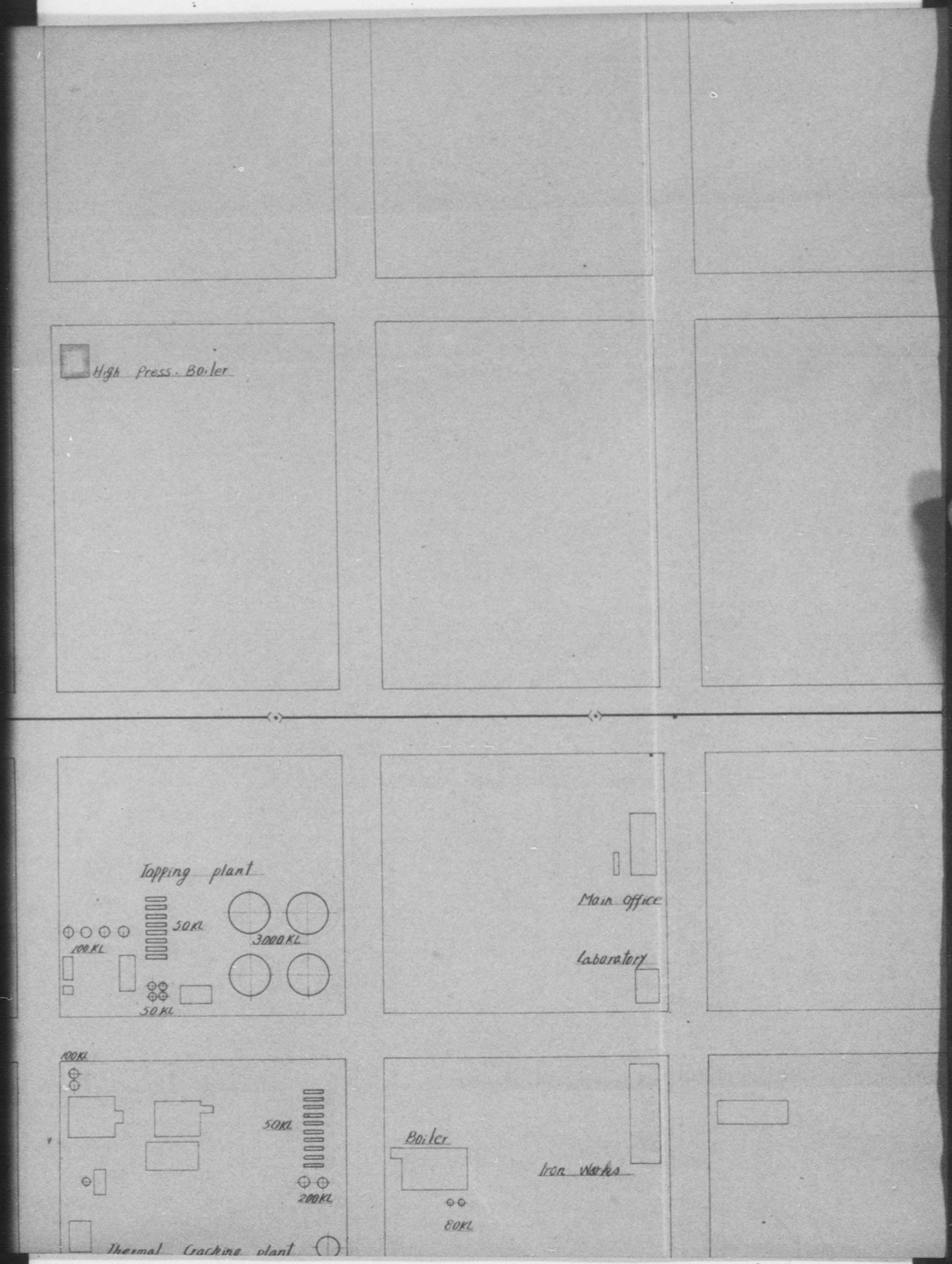

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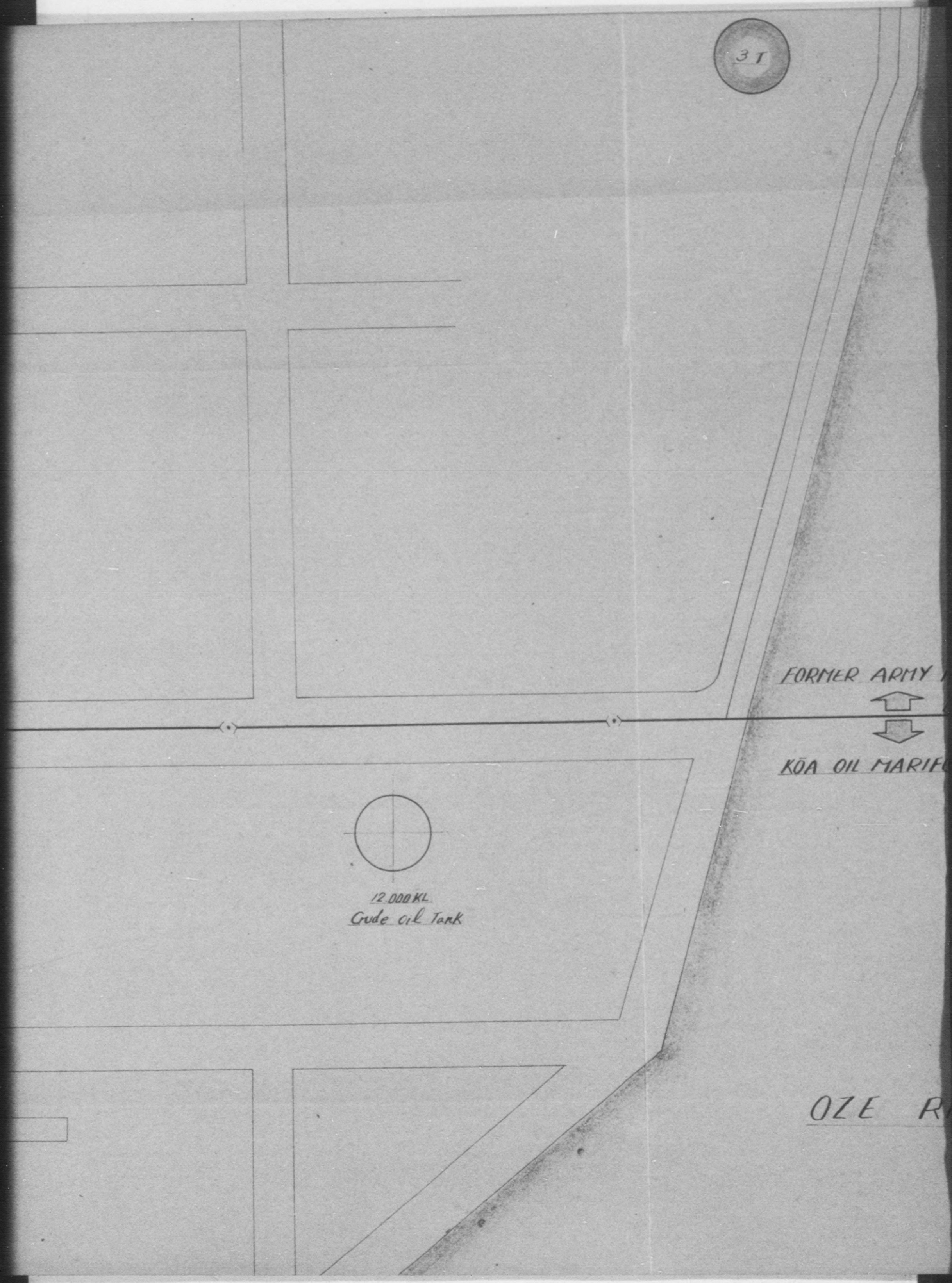

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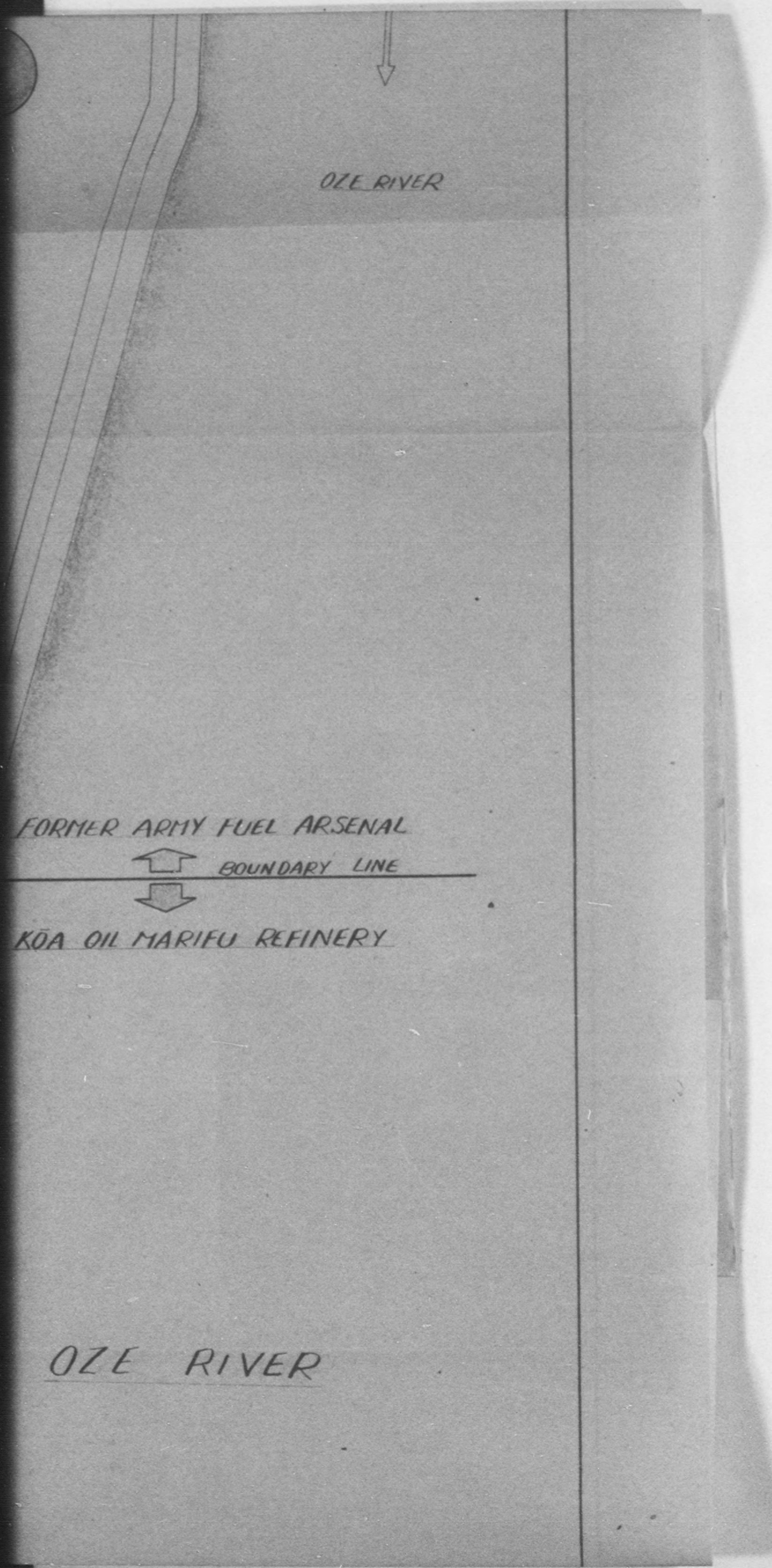

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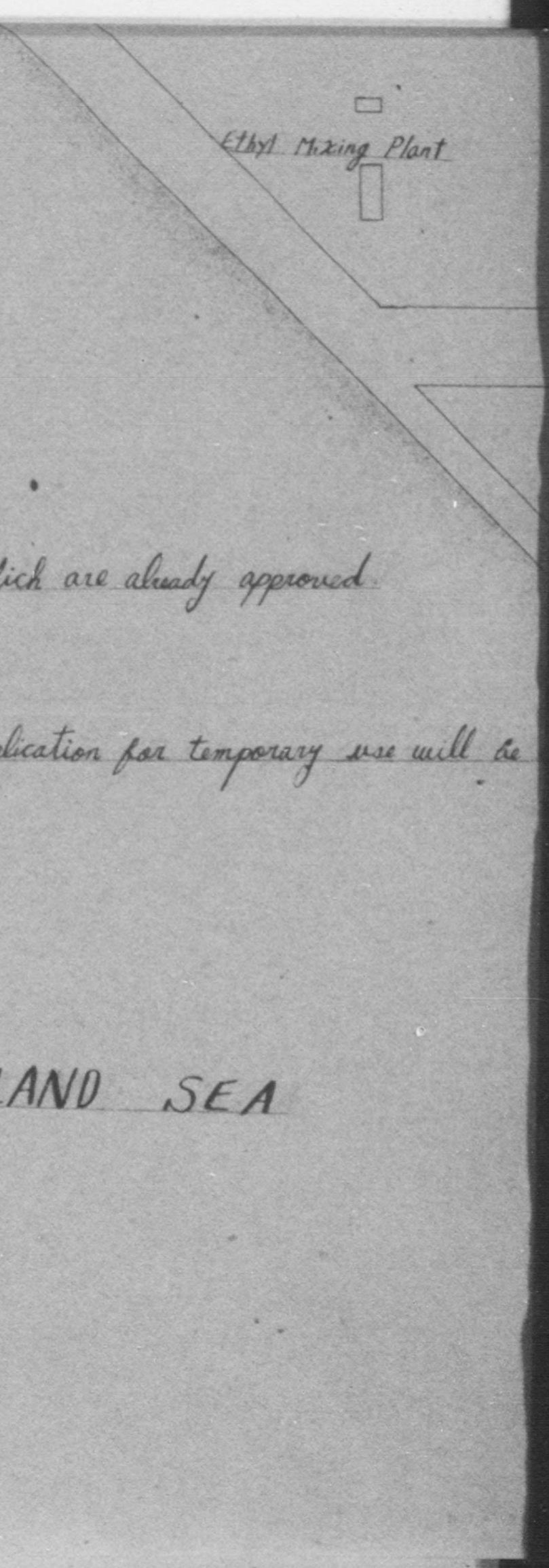

Note

indicates temporary use machineries which are already approved

indicates machineries for which application for temporary use will be

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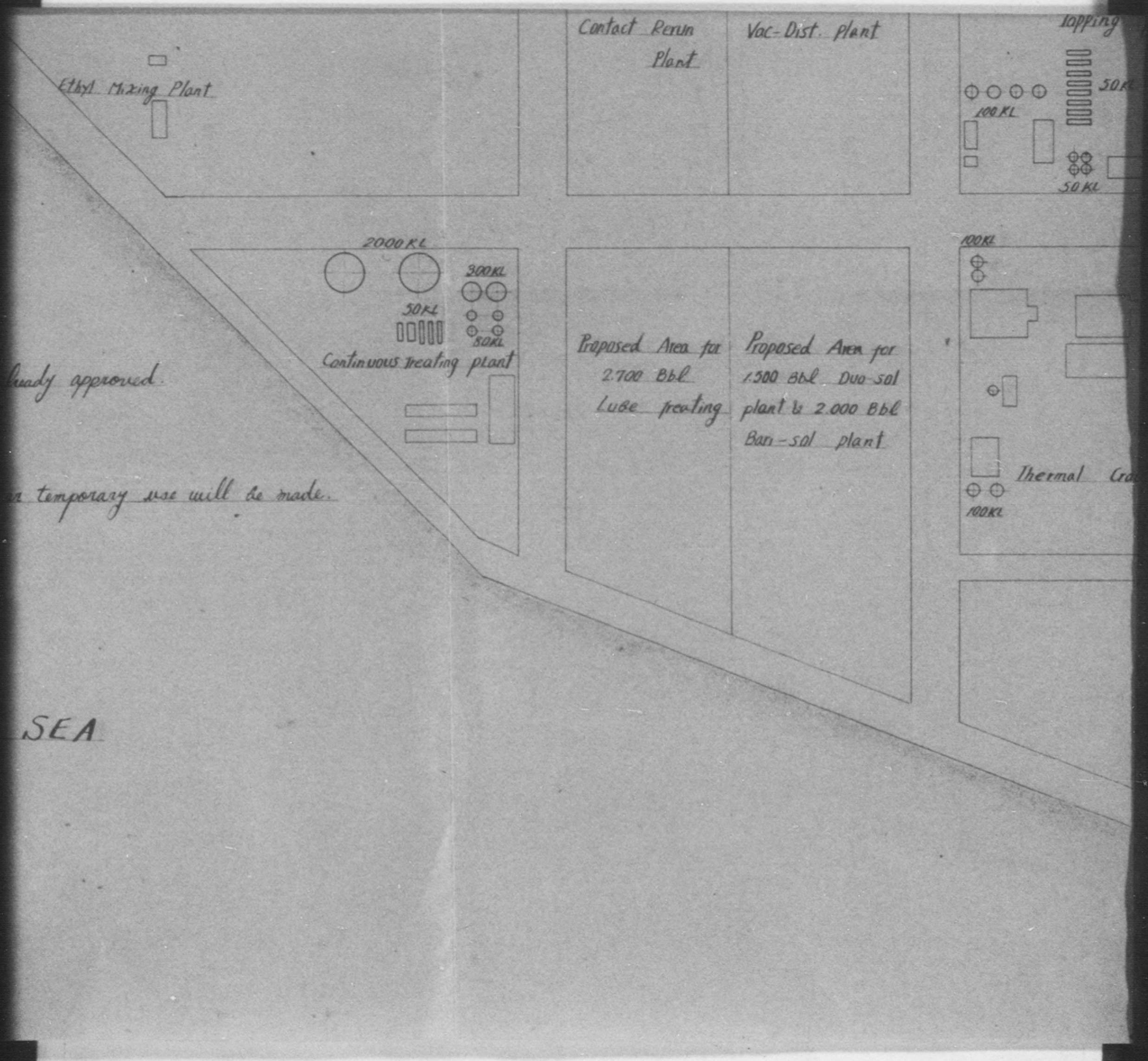

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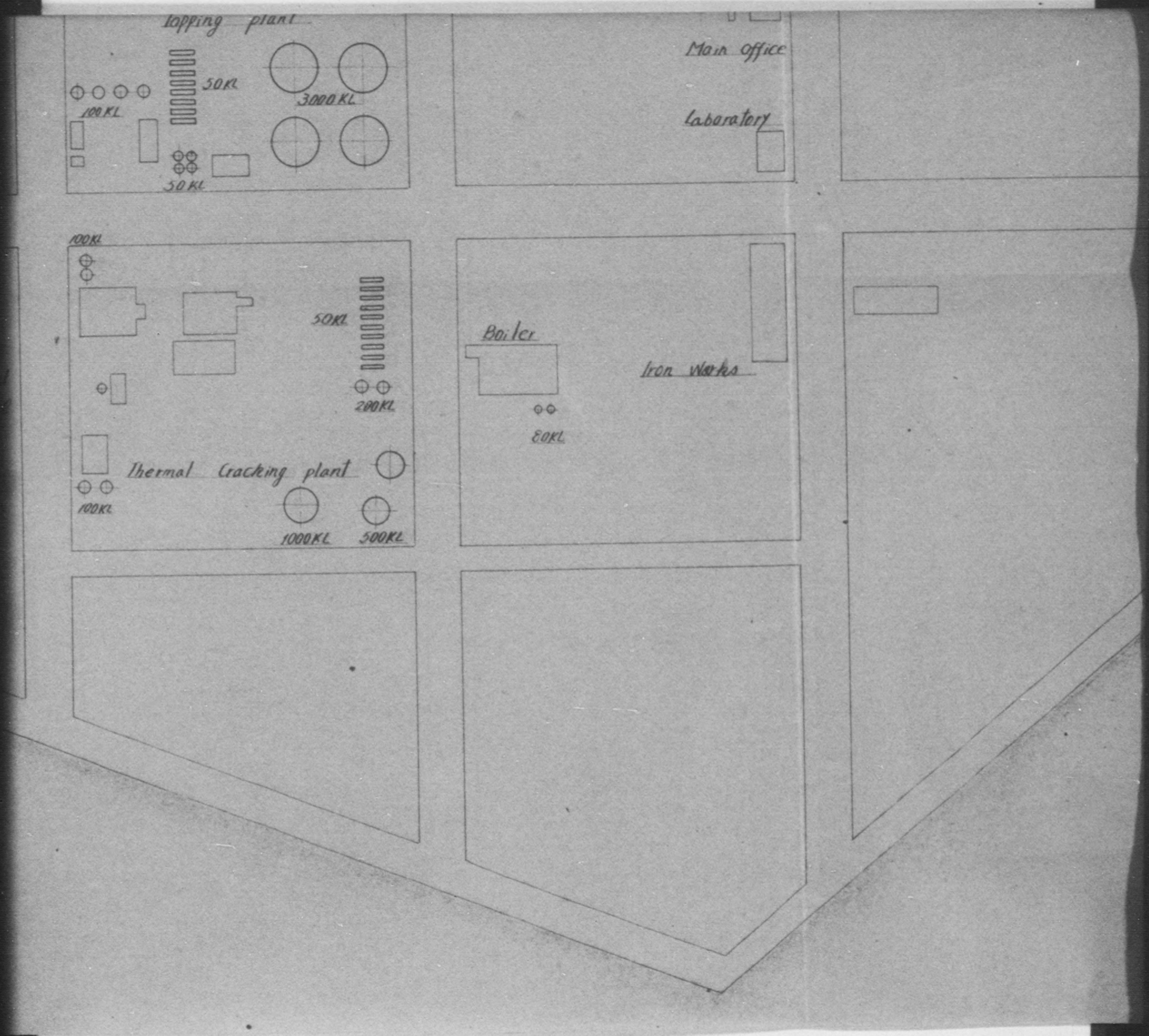
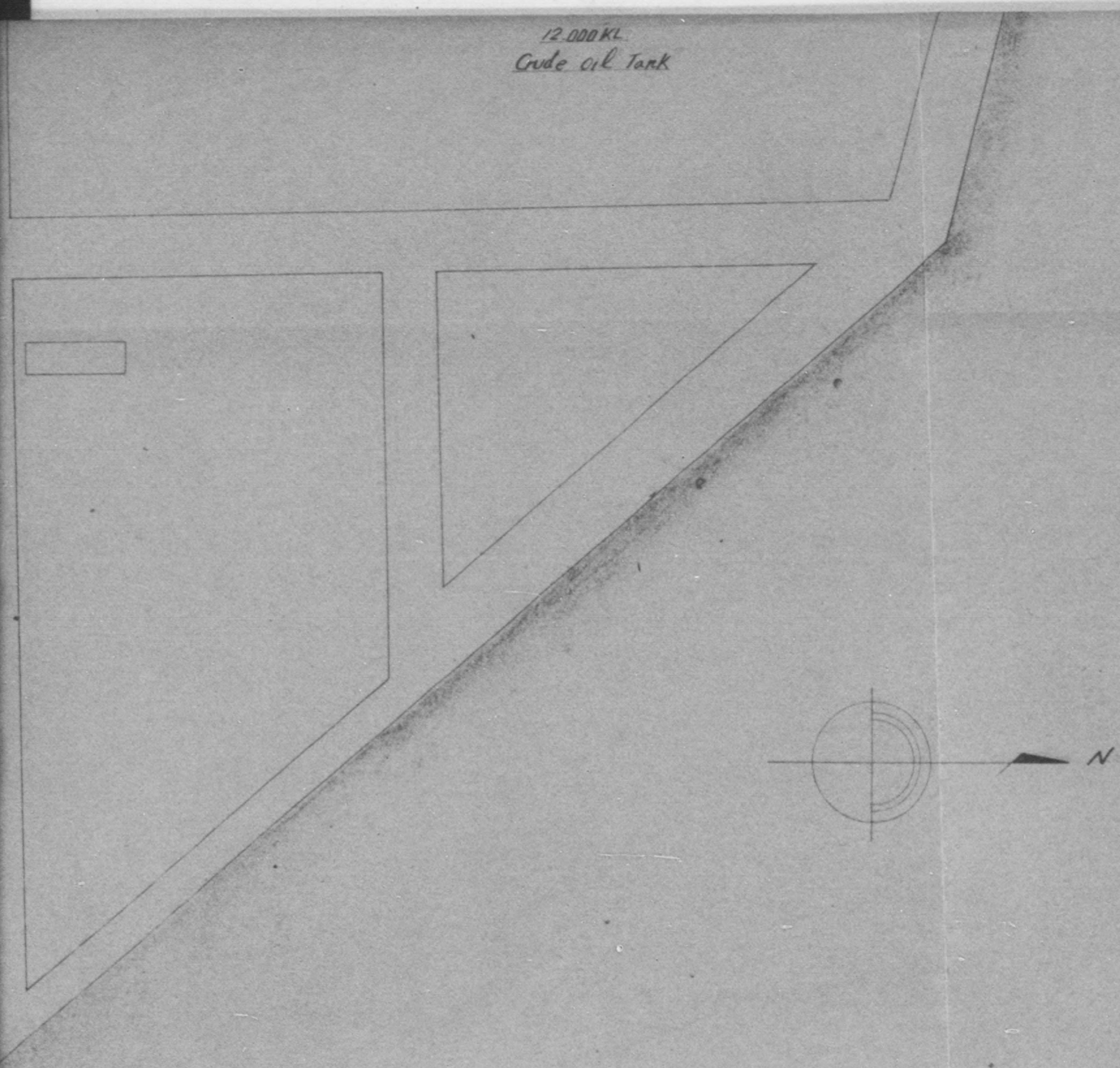
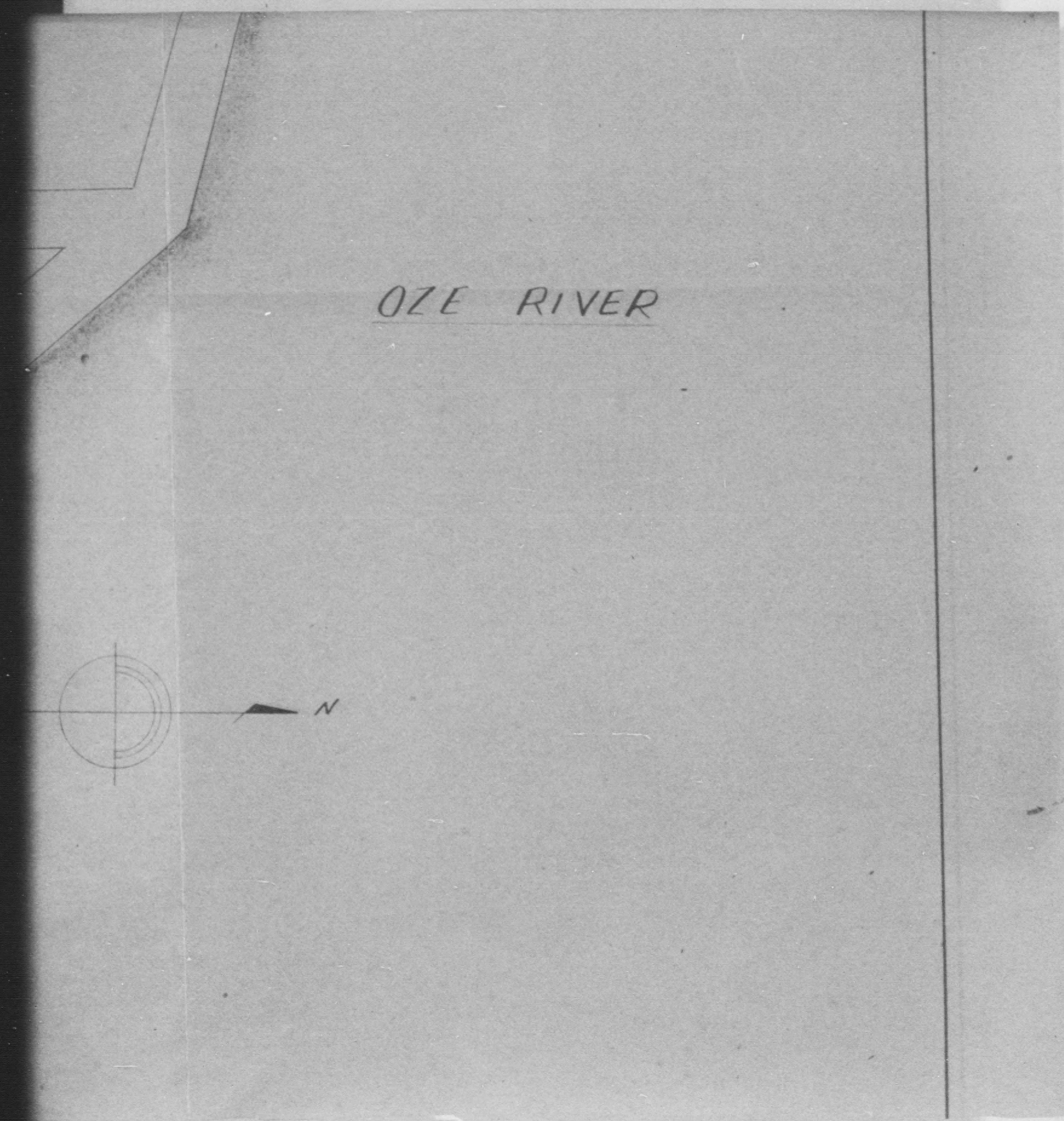


DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

TO : GENERAL HEADQUARTERS, SUPREME COMMANDER FOR THE ALLIED POWERS.

FROM : Reparations Agency, Tokyo.

SUBJECT: Application for Movement and Authorized Use of Reparations Equipment of Tokuyama Fuel Depot (Code No. 45-07) Filed by Kawasaki Refinery, Showa Oil Co., Ltd. (Non-reparations Plant).

R.A.R. No. 1317 (MS) 11 October 1950.

1. References:

ESS, GHQ, SCAP Memorandum dated 3 October 1950, subject: "Authorized Use of Equipment from ex-Military Petroleum Refineries".

2. The Reparations Agency hereby submits to your Headquarters an application for movement and authorized use of ~~57 items~~ 193 items of reparations equipment now lying idle in the Tokuyama Fuel Depot (Code No. 45-07) filed by the Kawasaki Refinery, Showa Oil Co., Ltd. (Non-reparations plant), together with an application of the Ministry of Finance and a recommendation of the Ministry of International Trade and Industry as enclosed herewith.

3. This application has been investigated and has been coordinated with other interested government agencies.

4. It is requested that your most favorable consideration be given to this application at the earliest practicable date.

(Y. Katsuno)
Director, Reparations Division,
Reparations Agency.

Incls:
a. Application of the Ministry of Finance.
b. Recommendation of the Ministry of International Trade and Industry.
3. Application of the subject Kawasaki Refinery.

Incl 4

LIST OF FACILITIES FOR APPLICATION (No. I)

Code No.: 45-7
Name of Plant: Former ~~Third Navy~~ Tokuyama Fuel ~~Arsenal~~ Depot
Address of Plant: Shingu-cho Aza, Tokuyama Ohaza, Tokuyama-City, Yamaguchi-Prefecture.

1. Machinery

Inv. No.	Name of Machinery	Brief Specifications	Quantity	Remarks
(1)45-7-332	5th Boiler Plant		1	The 5th Boiler Plant is permitted to remove into Kawasaki refinery of Showa Oil Co., Ltd. by Memorandum 463.8(11 Aug. 50) ESS/IND.
332-(1)	Ash Discharging Equipment	Cap. 4 Tons/hr. with motor chain width 0.3M L 18M	1	
-(2)	Steam Pump	Cap. 2KL/hr. $4\frac{1}{2}$" x $2\frac{3}{4}$" x 4"	"	
(3)	"	"	"	
(4)	Boiler Lancashire	Evap. Cap. 2 Tons/hr. 2.7Mø x L9M Normal Press 7Kg/cm^2	"	
(5)	Ash Discharging Equipment	Cap. 4 Tons/hr. 5 h.p. Chain width 0.3M L 23M	"	with motor
(6)	Reduction Gear	Speed Ratio 1 : 50	"	
(7)	Steam Pump	Cap. 35KL/hr. $9\frac{1}{2}$" x 8" x 12"	"	
(8)	Winch	Cap. 2 Tons 10 h.p.	"	with motor
(9)	Coal Loading Equipment	7.5 h.p.	"	"
(10)	Mechanical Stoker		"	
(11)	Boiler Takuma	Water Drum 1.2Mø x L3.95M Steam Drum 1.42mø x L4.33M	"	Evap. Cap. 10Tons/hr. Normal Press.14kg/cm^2
(12)	"	"	"	"

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

(5)	Ash Discharging Equipment	Cap. 4 Tons/hr. 3 h.p. Chain width 0.3M L 23M	"	with motor
(6)	Reduction Gear	Speed Ratio 1 : 50	"	
(7)	Steam Pump	Cap. 35KL/hr. 9½" x 8" x 12"	"	
(8)	Winch	Cap. 2 Tons 10 h.p.	"	with motor
(9)	Coal Loading Equipment	7.5 h.p.	"	"
(10)	Mechanical Stoker		"	
(11)	Boiler Takuma	Water Drum 1.2Mø x L3.95M Steam Drum 1.42mø x L4.33M	"	Evap. Cap. 10Tons/hr. Normal Press.14kg/cm²
(12)	"	"	"	"
(13)	"	"	"	"
(14)	Mechanical Stoker		"	
(15)	"		"	
(16)	Coal Banker	Cap. 20 Tons	0	missing
(17)	"	"	1	
(18)	"	"	"	
(19)	Coal Conveyer	Cap. 15 Tons/hr. 7.5 h.p.	"	with motor
(20)	Coal Distributor	Cap. 15 Tons/hr. 5 h.p.	"	"

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 475013

LIST OF FACILITIES FOR APPLICATION (No. I)

Code No.: 45-7
Name of Plant: Former ~~Third Navy~~ Tokuyama Fuel ~~Arsenal~~ Depot
Address of Plant: Shingu-cho Aza, Tokuyama Ohaza, Tokuyama-City, Yamaguchi-Prefecture.

1. Machinery

Inv. No.	Name of Machinery	Brief Specifications	Quantity	Remarks
(1)45-7-332	5th Boiler Plant		3	The 5th Boiler Plant is permitted to remove into Kawasaki refinery of Showa Oil Co., Ltd. by Memorandum 463.8(11 Aug. 50) ESS/IND.
332-(1)	Ash Discharging Equipment	Cap. 4 Tons/hr. with motor chain width 0.3M L 18M	1	
-(2)	Steam Pump	Cap. 2KL/hr. $4\frac{1}{2}$" x $2\frac{3}{4}$" x 4"	"	
(3)	"	"	"	
(4)	Boiler Lancashire	Evap. Cap. 2 Tons/hr. 2.7Mø x L9M Normal Press 7Kg/cm^2	"	
(5)	Ash Discharging Equipment	Cap. 4 Tons/hr. 5 h.p. Chain width 0.3M L 23M	"	with motor
(6)	Reduction Gear	Speed Ratio 1 : 50	"	
(7)	Steam Pump	Cap. 35KL/hr. $9\frac{1}{2}$" x 8" x 12"	"	
(8)	Winch	Cap. 2 Tons 10 h.p.	"	with motor
(9)	Coal Loading Equipment	7.5 h.p.	"	"
(10)	Mechanical Stoker		"	
(11)	Boiler Takuma	Water Drum 1.2Mø x L3.95M Steam Drum 1.42mø x L4.33M	"	Evap. Cap. 10Tons/hr. Normal Press.14kg/cm^2
(12)	"	"	"	"
			"	"

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

(4)	Boiler Lancashire	Evap. Cap. 2 Tons/hr. 2.7Mø x L9M Normal Press 7Kg/cm^2	"	
(5)	Ash Discharging Equipment	Cap. 4 Tons/hr. 5 h.p. Chain width 0.3M L 23M	"	with motor
(6)	Reduction Gear	Speed Ratio 1 : 50	"	
(7)	Steam Pump	Cap. 35KL/hr. 9½" x 8" x 12"	"	
(8)	Winch	Cap. 2 Tons 10 h.p.	"	with motor
(9)	Coal Loading Equipment	7.5 h.p.	"	"
(10)	Mechanical Stoker		"	
(11)	Boiler Takuma	Water Drum 1.2Mø x L3.95M Steam Drum 1.42mø x L4.33M	"	Evap. Cap. 10Tons/hr. Normal Press.14kg/cm^2
(12)	"	"	"	"
(13)	"	"	"	"
(14)	Mechanical Stoker		"	
(15)	"		"	
(16)	Coal Banker	Cap. 20 Tons	0	missing
(17)	"	"	1	
(18)	"	"	"	
(19)	Coal Conveyer	Cap. 15 Tons/hr. 7.5 h.p.	"	with motor
(20)	Coal Distributor	Cap. 15 Tons/hr. 5 h.p.	"	"

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

LIST OF FACILITIES FOR APPLICATION (No. I)

(Continued)

Inv. No.	Name of Machinery	Brief Specification	Quantity	Remarks
332-(21)	Steam Pump	Cap. 40 KL/hr. 12" x 10" x 18"	1	
(22)	Induction Motor	15 h.p.	"	
(23)	"	7.5 h.p.	"	
(24)	"	"	"	
(25)	Steam Engine	Cylinder Dia 6" Stroke 8" 360RPM	"	
(26)	Turbine Pump	Cap. 45 KL/hr. Head 180M 45 KW	"	with motor
(27)	Water Softening Apparatus	Cap. 22 KL/hr. 1.6Mø x H 2.5 M x 7 mmt	"	with turbine pump and motor (2h.p.)
(28)	Coal Transmitter	Cap.12 Tons/hr. 10 h.p.	"	with motor
(29)	"	Cap. 12 Tons/hr. 7.5 h.p.	"	"
(30)	Coal Lift	Cap. 2 Tons 15 h.p.	"	"

Remarks; In addition, all of bricks, construction steel beam and piping parts of this plant are included.

Total 30

(26)	Turbine Pump	Cap. 45 KL/hr. Head 180M 45 KW	"	with motor
(27)	Water Softening Apparatus	Cap. 22 KL/hr. 1.6Mø x H 2.5 M x 7 mmt	"	with turbine pump and motor (2h.p.)
(28)	Coal Transmitter	Cap.12 Tons/hr. 10 h.p.	"	with motor
([illegible])	"			
(29)	"	Cap. 12 Tons/hr. 7.5 h.p.	"	"
(30)	Coal Lift	Cap. 2 Tons 15 h.p.	"	"

Remarks; In addition, all of bricks, construction steel beam and piping parts of this plant are included.

Total 30 ~~32~~

Inv. No.	Name of Machinery	Brief Specifications	Quantity	Remarks
(2)45-7-297-(1)-(16)	Oil Tanks	Horizontal 4.5 Mø x L 8.3M x t 10 mm	16	Cap. 100KL/
(3)45-7-239(12)	Turbine Pump	Cap. 400KL/hr. Head 35m Stage 1	1	none motor
-239(13)	"	"	"	"
-239(14)	"	"	"	"
-704		200 KL/hr. Head 23.5m 40 KW	"	with motor & Switch

Total 20

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LIST OF FACILITES FOR APPLICATION (No. 1)

(Continued)

Inv. No.	Name of Machinery	Brief Specification	Quantity	Remarks
2635	10" gate valve	Body cast steel Face to face 500 mm	1	
2636	8" globe valve	Body cast steel (E) Face to face 550 mm	2	
2637	6" globe valve	Body cast steel (E) 500 mm	7	
2638	4" "	" (E)	3	
2639	4" gate valve	Body cast iron 220 mm	1	
2640	5" "	" 250 mm.	4	
2641	3" "	" 200 mm	18	
2642	4 1/2" "	" 350 mm	2	
2643	3" globe valve	Body gun metal 250 mm	2	
2644	2 1/2" "	Body cast steel 280 mm (E)	4	
2645	2" "	" 250 mm (E)	9	

2637	6" globe valve	Body cast steel 500 mm		(E)	7
2638	4" "	"		(E)	3
2639	4" gate valve	Body cast iron 220 mm			1
2640	5" "	" 250 mm.			4
2641	3" "	"	200 mm		18
2642	4 1/2" "	"	350 mm		2
2643	3" globe valve	Body gun metal	250 mm		2
2644	2 1/2" "	Body cast steel	280 mm	(E)	4
2645	2" "	"	250 mm	(E)	7
2646	2" "	gun metal	220 mm	(E)	17
2647	1 1/2" "	"	200 mm		1
2648	1" globe valve	Body gun metal Face to face	90 mm	(E)	6
2649	3/4" "	"	160 mm		1
2650	" "	Cast steel	150 mm	(E)	7
2651	" "	Gun metal	90 mm		5
2652	1/2" "	"	90 mm	(E)	15
2653	2" steam trap	Cast iron	450 mm	(E)	6
2654	1" "	"	400 mm	(E)	11
2655	1" "	"			3
2656	3/4" "	"	400 mm		1
2657	2 1/2" check valve	Cast steel	250 mm	(E)	3
2658	10" steel pipe	Outside dia.	260 mm		10 m

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2659	6" steel pipe	Outside Dia.	160 mm	30 m
2660	4 1/2" "	"	120 mm	35½ m
2661	2 1/2" "	"	70 mm	65 m
2662	1 1/2" "	"	45 mm	25 m
2663	5" gas pipe	"	145 mm	35 m
2664	3" "	"	89 mm	(E) 385 m
2665	2" "	"	60 mm	(E) 100 m
2666	1" "	"	34 mm	(E) 30 m
2667	3/4" "	"	27 mm	40 m
2668	1/2" "	"	22 mm	15 m
2669	8" "	"	216 mm	(E) 80 m
2670	6" "	"	165 mm	(E) 885 m
2671	4" "	"	114 mm	(E) 420 m

Total ~~Valve 139~~
~~Pipe 14~~

Grand Total No. of Items: ~~193~~
87 items (193 pieces)

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

TO : GENERAL HEADQUARTERS, SUPREME COMMANDER FOR THE ALLIED POWERS.

FROM : Reparations Agency, Tokyo.

SUBJECT: Application for Movement and Authorized Use of Reparations Equipment of Iwakuni Fuel Depot (Code No. 45-05) and Tokuyama Fuel Depot (Code No. 45-07) Filed by Kawasaki Refinery, Mitsubishi Oil Co., Ltd. (Non-reparations Plant).

R.A.R. No. 1319 (MS)

12 October 1950.

1. Reference:

ESS, GHQ, SCAP Memorandum dated 3 October 1950, subject: "Authorized Use of Equipment from ex-Military Petroleum Refineries".

2. The Reparations Agency hereby submits to your Headquarters an application for movement and authorized use of following reparations equipment now lying idle in the Iwakuni Fuel Depot (Code No. 45-05) and Tokuyama Fuel Depot (Code No. 45-07) filed by the Kawasaki Refinery, Mitsubishi Oil Co., Ltd. (Non-reparations plant), together with an application of the Ministry of Finance and a recommendation of the Ministry of International Trade and Industry as enclosed herewith.

Name of Arsenal	Code No.	No. of Items
a. Iwakuni Fuel Depot	45-05	109 Items (114 pieces)
b. Tokuyama Fuel Depot	45-07	254 " (254 ")
	Total	363 Items (368 pieces)

3. This application has been investigated and has been coordinated with other interested government agencies.

4. It is requested that your most favorable consideration be given to this application at the earliest practicable date.

(Y. Katsuno)
Director, Reparations Division,
Reparations Agency.

Incls:
a. Application of the Ministry of Finance.
b. Recommendation of the Ministry of International Trade and Industry.
c. Application of the subject Kawasaki Refinery.

Incls

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013

List of Facilities for application

Code No: 45 ~ 05

Name of plant Former Iwakuni ~~Army~~ Fuel Depot

Address of Plant Shozoku, Iwakuni city, Yamaguchi Pref.

1. Machinery (The Edeleanu Extraction Plant)

Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks
36 – (1)	SO_2 Compressor	Vertical Double Cylinder Cap. 13.6 m³/min	1	Sheet 649 of 864 Sheets	Item No 1228
		Dia 300 m/m Press. 5 kg/cm² 320 R.P.M Stroke. 300 m/m			
36 – (2)	"	"	1	"	1229
36 – (3)	"	"	1	"	1230
36 – (4)	"	"	1	"	1231
36 – (5)	"	"	1	"	1232
36 – (6)	"	"	1	"	1233
36 – (7)	SO_2 Vacuum Pump	Cap. 48.8 m³/min Dia 750 m/m Horizontal Reciprocating	1	"	1234
		185 R.P.M Degree of Vacuum 96%			
36 – (8)	"	"	1	"	1235
36 – (9)	"	"	1	"	1236
36 – (10)	"	"	1	Sheet 650 of 864 Sheets	1237
36 – (11)	Vacuum Pump	max. Cap 15.6 m³/h Turbine Type 721 mm Hg	1	"	1238
		570 R.P.M			
36 – (12)	"	"	1	"	1239
36 – (13)	"	"	1	"	1240
36 – (14)	Sump Pump	Cap. 480 l/min Centrifugal Press 30 M	1	"	1241
		Water Gauge			
36 – (15)	"	"	1	"	1242
36 – (16)	Tank	Dia 1.700 m/m H. 4.350 m/m Horizontal Unfinished	1	Sheet 653 of 864 Sheets	1288
		for Settling			
36 – (17)	"	"	1	"	1289
36 – (18)	Separator: for	Horizontal	1	"	1290
	Light oil (1st Unfinished)	Dia 660 m/m L 2.000 m/m			
36 – (19)	Separator: for	Horizontal	1	"	1291
	Light Oil (2nd Unfinished)	Dia. 400 m/m L. 3,000 m/m			

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks
36-(20)	Drying Tower:	Vertical Dia 800 m/m	1	"	1292
	for Gas	L. 8.190 m/m			
36-(21)	Extraction Tower	Vertical Dia 1.100 m/m	1	"	1293
		L. 9.600 m/m Pressure 6 Kg/cm²			
36-(22)	"	"	1	"	1294
36-(23)	Evaporator: for	Vertical Dia 900 m/m	1	Sheet 654 of 864 Sheets	1295
	Extract Oil 1st Stage	H. 7.600 m/m Press 13 Kg/cm²			
36-(24)	Evaporator: For	Vertical Dia 900 m/m	1	"	1296
	Extract Oil 2nd stage	H. 9650 m/m Press 9 Kg/cm²			
36-(25)	Evaporator: For	Vertical. Dia 900 m/m	1	"	1297
	Extract Oil 3rd Stage	H. 7500 m/m 10.500 Press 9 Kg/cm²			
36-(29)	Refined Oil	Dia. 500 m/m H. 2,500 m/m	1	Sheet 651 of 864 Sheets	1253
	Preheater	Vertical Floating Head Heating Area 40 m²			
36-(30)	"	"	1	"	1254
36-(31)	"	"	1	"	1255
1. 36-(32)	Solvent Crude	Dia. 500 m/m L. 2.600 m/m	1	Sheet 650 of 864 Sheets	1251
	Oil Cooler	Vertical Floating Head Cooling Area 4.0 m²			
2. 36-(33)	"	"	1	"	1252
36-(36)	SO_2 Cooler	Dia. 250 m/m H. 4,400 m/m Vertical Floating Head	1	Sheet 651 of 864 Sheets	1256
		Cooling Area 5 m²			
36-(37)	"	"	1	"	1257
36-(38)	Preheater: For	Dia 550 m/m L. 4.550 m/m Vertical Floating	1	"	1258
	Extract Oil 1st Stage	Heating Area 50 m²			
36-(39)	"	"	1	"	1259
36-(40)	"	"	1	"	1260
36-(41)	"	"	1	"	1261
36-(42)	"	"	1	"	1262
36-(43)	Preheater: For	Dia. 850 m/m L. 4,300 m/m	1	"	1263
	Extract Oil 3rd Stage	Vertical Floating Heating Area 50 m²			
36-(44)	"	"	1	"	1264

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks
36 – (45)	Preheater: For Extract Oil	Dia 600 m/m	1	Sheet 650 of 651 Sheets	1265
	4th Stage	Vertical Floating Height 4550 m/m			
		Heating Area 50 m²			
36 – (46)	"	"	1	Sheet 652 of 864 Sheets	1266
36 – (47)	Tower Reboiler: For	Vertical Floating Head Dia.	1	Sheet 654 of	1301
	Extract Oil 1st Stage	550 m/m H. 4.550 m/m Heating		864 Sheets	
		Area 45 m²			
36 – (48)	"	"	1	"	1302
36 – (49)	Preheater: For	Dia 500 m/m Vertical Floating Height	1	Sheet 652 of 864 Sheets	1267
	Extract Oil 5th Stage	4000 m/m Heating Area 40 m²			
36 – (50)	Preheater: For Extract Oil	"	1	"	1268
	5th Stage				
36 – (51)	Preheater: For Extract Oil	"	1	"	1269
	6th stage				
36 – (52)	"	"	1	"	1270
36 – (53)	"	"	1	"	1271
36 – (54)	Tower Reboiler: For Extract	Vertical Floating Head Dia. 600 m/m H. 4.500 m/m	1	Sheet 654 of 864 Sheets	1299
	Oil 3rd Stage	Heating Area 50 m²			
36 – (55)	Tower Reboiler: For Extract Oil	Vertical Floating Head Dia. 500 m/m H. 2.500 m/m Heating	1	"	1300
	4th stage	Area ~~40~~ 20 m²			
36 – (56)	Heat Exchanger	Dia. 660 m/m H. 2,800 m/m Vertical Reboiler	1	Sheet 650 of 864 Sheets	1245
		Heating Area 40 m²			
36 – (57)	"	"	1	"	1246
36 – (58)	Tank	Dia. 1.630 m/m L. 4,350 m/m Horizontal	1	Sheet 654 of 864 Sheets	1303
36 – (59)	"	"	1	"	1304
36 – (60)	Heat Exchanger	Dia. 500 m/m L. 4,550 m/m Horizontal Floating Head	1	Sheet 650 of 864 sheets	1247
		Heating Area 40 m²			
36 – (61)	"	" 35 m²	1	"	1248
36 – (62)	Switch Board	1 phase. Cap. 6 Kw 50 Cycle 220 Volt. Box Type	1	Sheet 655 of 864 Sheets	1316
		Primary 220 Volt Secondly 2/220 Volt			
36 – (63)	"	"	1	"	1317

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Inv. NO	Name of Machinery	Brief Specification	Quantity (Item)	Sheet NO	Remarks
36 – (64)	Switch Board	1 phase. Cap. 6KW 50 Cycle 220 Volt. Box Type	1	Sheet 653 of	1318
		Primary 220 Volt Secondly 2/220 Volt		864 Sheets	
36 – (65)	"	"	1	"	1319
36 – (66)	"	"	1	"	1320
36 – (67)	"	"	1	"	1321
36 – (68)	"	"	1	"	1322
36 – (69)	"	"	1	"	1323
36 – (70)	"	"	1	"	1324
36 – (71)	Tank	Dia 2,450 m/m. L 4,600 m/m Vertical. Bottom Conical	1	Sheet 654 of 864 Sheets	1305
36 – (72)	"	"	1	"	1306
36 – (73)	Reboiler	Dia. 1,880 m/m L 6,700 m/m Horizontal Reboiler	1	"	1307
		Unfinished			
36 – (74)	"	Dia 1,880 m/m L. 6,700 m/m Horizontal Reboiler	1	"	1308
36 – (75)	Tank	Dia. 1,900 m/m L. 1500 m/m Vertical.	1	"	1309
	Blower	Detail Unknown Cap. 36 m³/min			
36 – (76)	~~Turbine Pump~~	~~Dia. 1,200 m/m~~	1	Sheet 650 of 864 Sheets	1243
		~~Turbine Height 1,700 m/m~~ press 2 kg/cm²			
36 – (77)	"	"	1	"	1244
36 – (78) (581)	Heat Exchanger	Dia. 920 m/m L. 2,570 m/m	1	"	1249
		Vertical Reboiler Fix			
36 – (79) (79-80)	Heat Exchanger	Dia 730 m/m L. 5,700 m/m Horizontal Floating	1	"	1250
		Head Heating Area 50 m²			
36 – (80)	Cooler	Dia. 250 m/m L. 4,400 m/m	1	Sheet 652 of 864 Sheets	1272
		Vertical Floating Head			
		Cooling Area 5 m²			
36 – (81)	"	"	1	"	1273
36 – (82)	Preheater	Dia. 550 m/m. L. 4000 m/m Vertical Reboiler Fix	1	"	1274
		Heating Area 40 m²			
36 – (83)	Motor: For 36-(1)	3 phase. 100HP. 3,300 Volt	1	"	1275
		Induction 16.5 Amp.			
		870 R.P.M. 8P. 60 Cycle.			

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Inv No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet NO	Remarks
38—(84)	Motor: For 36-(2)	3 phase 100HP. 3.300 Volt	1	Sheet 653 of	1276
		Induction 16.5 Amp		864 sheets	
		870 R.P.M 8P 60 cycle			
38—(85)	Motor: For 36-(3)	"	1	"	1277
38—(86)	Motor: For 36-(6)	"	1	"	1278
38—(87)	Motor: For 36-(7)	3 phase. 75HP. 3.300 Volt	1	"	1279
		Induction 12.4 Amp			
		865 R.P.M, 8P 60 cycle			
36—(88)	Motor: For 36-(8)	"	1	"	1280
36—(89)	Motor: For 36-(9)	"	1	"	1281
36—(90)	Motor: For 36-(10)	"	1	"	1282
36—(91)	Motor: For 36-(11)	3 phase 25Hp 420 Volt	1	"	1283
		Induction 35.2 Amp			
		570 R.P.M. 12P. 60 cycle			
36—(92)	Motor: For 36-(12)	"	1	"	1284
36—(93)	Motor: For 36-(13)	3 phase, 15HP. 220 Volt	1	"	1285
		Induction 37 Amp			
		1.730 R.P.M. 4P. 60 cycle			
36—(94)	Motor: For 36-(76)	3 phase, 190HP, 3,300 Volt	1	"	1286
		Induction 30 Amp			
		3.535 R.P.M 60 cycle 2P			
36—(95)	Motor: For 36-(77)	"	1	"	1287
36—(96)	Tower	Dia. 600 m/m L. 17,000 m/m	1	Sheet 654 of	1310
		Vertical. Detail Unknown		864 sheets	
36—(97)	"	"	1	Sheet 655 of 864 sheets	1311
36—(98)	Air Tank	Dia 610 m/m L 1.550 m/m	1	"	1312
		Vertical Floating			
36—(99) (552)	Reboiler	Dia. 500 m/m L 2.450. m/m	1	"	1313
		Vertical Reboiler Fix			
		Heating Area 20 m²			

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks
36-(100) (583)	Reboiler	Dia 530 m/m L. 2440 m/m	1	Sheet 655 of	1314
		Vertical Reboiler Fix		864 Sheets	
		Heating Area 30 m²			
36-(101) (584)	"	"	1	"	1315
36-(102)	Air Filter	Dia. 500 m/m L 930 m/m	1	"	1325
		Box Screen Type			
36-(103)	"	"	1	"	1326
36-(104)	"	"	1	"	1327
36-(105)	5-piece	Dia. 400 m/m L. 750 m/m	1	"	1328
	Steam Traps	L. Type Dia 400 m/m			
		L. 450 m/m			
36-(106)	Gate Valve	Size 300 m/m Cast Iron	1	Sheet 656 of	1329
		Face to face 140 m/m		864 Sheets	
		L. 140 m/m. H 1.330 m/m			
		W. 600 m/m			
36-(107)	"	"	1	"	1330
36-(108)	"	"	1	"	1331
36-(111) (36 (25))	Refined Oil 1st Evaporator	Dia 900 m/m Vertical	1	Sheet 654 of	1298
		H. 7.500 m/m		864 Sheets	
		Press 6 kg/cm²			
	2-piece Valves	size 75 m/m	1	Sheet 656 of	1332
		Face to face 165 m/m		864 Sheets	
		Gate Cast Iron L. 165 m/m			
		W. 950 m/m H. 180 m/m			
	1-piece Valves	size 75 m/m	1	"	1333
		Face to face 210 m/m			
		Check Bronze L. 210 m/m			
		W. 180 m/m H. 200 m/m			
36-(34)	Refined Oil First Reboiler	Shell and Tube Type Heating area 15 m²	~~Total~~ 106	First additional Evaluation	
		Vertical Type	1	"	
36-(109)	Heat Exchanger	Vertical, Shell and tube type Heating area 15 m²	1	"	
36-(110)	"	"	1	"	
	114 Pieces	Total	109 Items		

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List of Facilities for Application

Code No. 45 – 07

Name of Plant Former ~~3rd Naval~~ Tokuyama Fuel Depot

Address of Plant Tokuyama City, Yamaguchi Pref.

1. Machinery (1st Solvent Extraction and Dewaxing Plant)

Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20 (6)	Propane Tank	Vertical Cylindrical. Cap. 4Kl	1	Sheet 16 of 802 Sheet	Area No. 4
		Dia 1.4m H. 8.3m Shell Thick			
		25mm Normal Press 9~16 Kg/cm²			
		Construction Welded			
20 (7)	"	"	1	"	"
20 (8)	"	"	1	"	"
20 (9)	"	"	1	"	"
20 (10)	Extracting Tower	Vertical Rushing and Bubble	1	Sheet 33 of 802 Sheet	"
		Normal Temp. 50°C Normal			
		Press. 15 Kg/cm² Dia. 1.90m			
		H. 22.4m Shell Thick 32mm			
20 (11)	Evaporator	Vertical Bubble Plate × 7 and	1	Sheet 40 of 802 Sheet	"
		Tray × 8			
		Normal Temp 206°C~110°C			
		Normal Press 1 Kg/cm²			
		Dia 1.9m H. 18.36m Shell Thick 12mm			
20 (12)	"	Vertical Bubble Plate × 12 and	1	Sheet 39 of 802 Sheet	"
		Bubble Tray × 7			
		Normal Temp 300°C ~ 206°C			
		Normal Press 1.5 Kg/cm²			
		Up. Dia 1.9m H 10.2m T. 16mm			
		Under Dia 1.2m H. 8.1m			
		Shell Thick 25mm			
20 (13)	Boiler	Horizontal Smoke Tubular	1	Sheet 46 of 802 Sheet	"
		Evaporating Cap. 2 T/H			
		Heating Area 90 m²			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
2 0 (13)	Boiler	Superheated Steam Press 1.5 kg/cm²			
		Superheated Steam Temp 400°C			
		Dia 1.70m L.5.50m			
		Shell Thick 12 mm			
		Smoke Tube. Dia 3½"			
		L.5.50m 72 Pieces			
2 0 (14)	Rotary Filter	Vacuum Rotary Motor Driven	1	Sheet 25 of 802 Sheet	Area No. 4 & Bldg No. 22
		Normal Temp. -42°C			
		Press 8 kg/cm²			
		Filting Area 9.5 m²			
		Cap. 2.5 kl/h @ 20 R.P.M			
		Normal Size Dia 3.8m L.5m			
2 0 (15)	"	"	1	Sheet 26 of 802 Sheets	"
2 0 (16)	Evaporator	Vertical Cylindrical Bubble Plate	1	Sheet 19 of 802 Sheet	Area No. 4
		Normal Temp. 100°C			
		Press 1 kg/cm²			
		Dia. 0.60m H.8m			
		Shell Thick 9 mm			
2 0 (17)	"	Vertical Bubble Plate x 13	1	Sheet 29 of 802 Sheet	"
		Normal Temp. 100°C			
		Press 1 kg/cm²			
		Dia. 0.60m H. 8m			
		T. 12 mm			
2 0 (20)	Receiver	Vertical Cylindrical	1	Sheet 38 of 802 Sheet	"
		Cap. 15 kl/H Dia 1.9m H.5.3m			
		Shell Thick 32 mm			
		Normal Press 15 kg/cm²			
		Normal Temp. 100°C			
2 0 (21)	"	"	1	"	"
2 0 (22)	Oil Middle Tank	Vertical Cylindrical	1	Sheet 34 of 802	"
		Cap. 15 kl Dia. 1.9m		Sheet	

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
2 0 (22)	Oil Middle Tank	H. 5.3m Shell Thick 32 mm			
		Normal Press 16 kg/cm²			
2 0 (23)	Asphalt Separator	Horizontal Cylindrical	1	Sheet 19 of 802	Area No. 4
		Bubble Plate		Sheet	
		Normal Press 16 kg/cm²			
		Temp. 50°C Dia. 1.90m			
		L. 8.30m Shell Thick 32 mm			
2 0 (25)	Air Compressor	Vertical Steam Driven	1	Sheet 42 of	Bldg No. 22
		Simplex. Cap. 12 m³/H		802 Sheet	
		7½" × 5" × 10"			
		Normal Press 3 kg/cm²			
		Del Bore 1½" Air Cooling			
2 0 (26)	Induction Motor	Enclosed cage Rotor 15 HP	1	Sheet 27 of	"
		3 Phase. 220V, 485 R.P.M		802 Sheet	
		14P 42A 60 Cycle.			
2 0 (27)	"	Enclosed Cage Rotor 15 KW	1	Sheet 26 of	"
		3 Phase. 220V. 51A. 6P		802 Sheet	
		1,150 R.P.M. 60 Cycle			
2 0 (28)	"	"	1	"	"
2 0 (30)	Plunger Pump	Vertical Triplex. Motor Driven	1	Sheet 24 of	"
		Cap. 15 kg/H Normal Press 6 kg/cm²		802 Sheet	
		Nominal Size 105 mm × 120 mm			
		Normal Temp. −42°C			
		90 R.P.M			
		Induction Motor Enclosed			
		5 HP. 1150 R.P.M 220V motor missing			
2 0 (31)	Steam Pump	Duplex Double Acting	1	Sheet 36 of	"
		Cap. 18 kg/H. 10" × 8" × 12"		802 Sheet	
		Normal Press 16 kg/cm²			
		Suc. Bore 6" Del. Bore 4"			
		Cylinder Body Cast Iron			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20(32)	Steam Pump	Horizontal Duplex Double Acting	1	Sheet 21 of	"
		Cap. 13 KL/H 9"x 7"x11"		802 Sheet	
		Normal Press Unknown.			
		Suc. Bore 6" Del. Bore 4"			
		Cylinder Body. Cast Iron.			
20(33)	"	Horizontal Duplex Double	1	Sheet 20 of	"
		Acting Cap. 10 KL/H		802 Sheet	
		8½"x6"x6"			
		Normal Press 3 Kg/cm²			
		Suc. Bore 4" Del. Bore 4"			
		Cylinder Body Cast Iron			
20(34)	"	Simplex Double Acting Hydrol	1	Sheet 34 of	"
		Cap. 9 KL/H. 3"x6"x12"		802 Sheet	
		Normal Press 16 Kg/cm²			
		Temp. 80°C			
		Oil Cylinder Cast Iron			
20(35)	Vacuum Pump	Vertical Simplex Double Acting.	1	Sheet 24 of	"
		Motor Driven Cap. 370 M³/H		802 Sheet	
		Vacuum 200mm HG Water			
		Cooling. Suc. Bore 6". Del Bore			
		8". 210 R.P.M Induction Motor			
		Enclosed Type Ⓔ 75HP			
		800 R.P.H 3,300 V Motor missing			
20(36)	"	"	1	"	"
20(37)	Plunger Pump	Horizontal Duplex Single	1	Sheet 22 of	"
		Acting Steam Driven Cap.		802 Sheet	
		8 KL/H 6"x4"x6" Normal			
		Press 8 Kg/cm²			
20(38)	Gas Suction Pump	Vertical Simplex Single Acting.	1	Sheet 27 of	"
		Motor Driven. Cap. 40 KL/H		802 Sheet	
		Vacuum 200 mm HG			

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Inst No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20(38)	Gas Suction Pump	Nominal Size 150mm×150mm			
		110 R.P.M			
20(39)	Gas Compressor	Horizontal Simplex Double Acting	1	Sheet 45 of	Bldg No. 23
		2 Stages. Motor Driven		802 Sheet	
		Cap. 590 m³/H Suc. Press 1 kg/cm²			
		Del Press 17 kg/cm² Suc. Temp -10°C			
20(39)	Cooler	Shell and Tubes Cooling	1	"	Area No. 3
		Surface 35 m² Tube Admiralty			
		2 Pass O.D 20mm L. 2.2 m			
		250 Pieces Shell. Steel Plate			
		Dia 0.67m H. 2.7m			
20(39)	"	Vertical Shell and Tubes	1	"	"
		Cooling Surface 25 m² Tube.			
		Extra Steel Tube O.D. 32mm			
		L. 2.06 m 58 Pieces Shell Steel			
		Plate Dia. 0.6m H. 2.7m			
20(39)	"	"	1	"	"
20(40)	"	Vertical. Shell and Tubes	1	Sheet 43 of	"
		Cooling Surface 130 m²		802 Sheet	
		Dia 0.95m H. 5m			
		Tube Extra Steel Tube			
		O.D 60mm L. 5m 144 Pieces			
		Shell Steel Plate			
		Side Inlet 1" Outlet 4"			
20(41)	"	"	1	Sheet 44 of 802 Sheet	"
20(42)	"	"	1	"	"
20(43)	"	Vertical. Shell and Tubes	1		
		Cooling Surface 45 m²			
		Dia. 0.5m H. 5m			
		Tube. Extra Steel Tube			
		O.D 60mm L. 4.9m 53 Pieces			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20 (43)	Cooler	Shell Steel Plate			
		Side Inlet 1" Outlet 2"			
20 (44)	"	Vertical Shell and Tubes	1	Sheet 44 of	Area No.3
		Cooling Surface 45 m²		802 Sheet	
		Dia. 0.6 m L. 5 m Tube.			
		Extra Steel Tube O.D 60 mm			
		L. 4.9 m 53 Pieces Shell. Steel			
		Plate Side Inlet 1" Outlet 2"			
20 (45)	Receiver	Vertical Cylindrical	1	Sheet 28 of	"
		Cap. 1.8 Kl Dia. 0.95 m		802 Sheet	
		H. 2.4 m T. 12 mm Temp.			
		-42°C Press 3 kg/cm²			
20 (46)	Gas Separator	Vertical Column Normal	1	Sheet 24 of	"
		Temp. -25°C Press A.T.M		802 Sheet	
		Dia. 0.5 m H. 1.6 m			
		Shell Thick. 9 mm			
20 (47)	Asphalt Separator	Horizontal Cylindrical	1	Sheet 13 of	Area No.5
		Bubble Plate		802 Sheet	
		Normal Press 16 kg/cm²			
		Temp. 50°C			
		Dia 1.9 m L 8.3 m T. 32 mm			
20 (48)	Receiver	Horizontal Cylindrical	1	Sheet 27 of	"
		Cap. 12 Kl Dia. 1.9 m L. 3.2 m		802 Sheet	
		Shell Thick 20 mm			
		Construction Welded			
20 (49)	Water Receiver	Vertical Cylindrical	1	Sheet 40 of	"
		Cap. 10 Kl Dia 1.5 m H. 5.5 m		802 Sheet	
		Shell Thick 8 mm			
		Construction Welded			
20 (51)	Oil Tank	Vertical Cylindrical	1	Sheet 49 of	Area No.3
		Cap. 100 Kl Dia 4.5 m H. 7.5 m		802 Sheet	

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20(51)		Side Plate Thick 8 mm			
		Construction Riveted			
20(52)	Oil Tank	"	1	Sheet 49 of 802 Sheet	Area No. 3
20(53)	"	Vertical Cylindrical	1	"	"
		Cap. 80 Kl Dia 4.5 m H. 5 m			
		Side Plate Thick 6 ~ 8 mm			
20(54)	"	Vertical Cylindrical	1	Sheet 50 of	"
		Cap. 100 Kl Dia 5 m H. 6 m		802 Sheet	
		Side Plate Thick 8 mm			
		Construction Riveted			
20(55)	"	Vertical Cylindrical	1	"	"
		Cap. 80 Kl Dia 4.5 m H. 5 m			
		Side Plate Thick 6 ~ 8 mm			
		Construction Riveted			
20(56)	Steam Pump	Duplex Double Acting	1	Sheet 31 of	No. 22
		Cap. 12 Kl/H 8"×6"×3"		802 Sheet	
		Normal Press 8 kg/cm²			
		Suc. Bore 3" Del Bore 2 ½"			
		Oil Cylinder Body Cast Iron			
20(57)	Oil Tank	Vertical Cylindrical	1	Sheet 47 of	Area No. 4
		Cap. 230 Kl Dia 7 m H. 6 m		802 Sheet	
		Side Plate Thick 9 mm			
		Construction Riveted			
20(58)	"	"	1	"	"
20(59)	"	"	1	"	"
20(60)	Heater	Shell and Tubes	1	Sheet 18 of	"
		Heating Surface 25 m²		802 Sheet	
		Normal Temp. 50°C			
		Normal Press 16 kg/cm²			
		Tubes Admiralty Brass 2 Pass			
		O.D. 20 mm L. 2.6 m 166 Pieces			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Shell Steel Plate O.D 0.48m			
		L. 3m Side Inlet 1½"			
		Outlet 3"			
20 (61)	Oil Tank	Vertical Cylindrical	1	Sheet 48 of	Area No 4
		Cap. 200Kl Dia 9.5m H. 3m		802 Sheet	
		Side Plate Thick 8 mm			
		Construction Riveted			
20 (62)	Steam Pump	Duplex Double Acting	1	Sheet 36 of	Bldg No. 71
		Cap. 8 Kl/H 8"×4"×8"		802 Sheet	
		Normal Press 16 Kg/cm²			
		Suc. Bore 4" Del Bore 3"			
		Cylinder Body Cast Iron			
20 (67) (66)	Plunger Pump	Vertical Triplex Motor Driven	1	Sheet 32 of	"
		Cap. 3 Kl/H		802 Sheet	
		Normal Press Unknown			
		95 R.P.M Nominal Size			
		3"×4" Induction Motor			
		Enclosed 5HP 1,160 R.P.M 220V Motor missing			
20 (68)	Plunger Pump	"	1	Sheet 40 of 802 Sheet	"
20 (69)	Propane Receiver	Horizontal Cylindrical	1	Sheet 17 of	Fukugawa
		Cap. 16 Kl Dia 1.9m L. 6.8m		802 Sheet	
		Shell Thick 32 mm			
		Normal Press 16 Kg/cm²			
20 (72)	Heater	Shell and Tubes	1	Sheet 31 of	"
		Heating Surface 5m²		802 Sheet	
		Normal Temp 80°C			
		Press 2 Kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D 20 mm L 0.65m 19 Pieces			
		Shell Steel Plate			
		Dia. 0.19m L. 0.75m			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20(85)	Steam Pump	Horizontal Double Acting.	1	Sheet 17 of	Bldg No. 71
		Duplex Cap. 16 kg/H 8"x6"x8"		802 Sheet	
		Press 16 kg/cm² Suc. Bore 4"			
		Del Bore 3" Cylinder Body			
		Cast Iron			
20(86)	"	Horizontal Duplex Worthington	1	"	"
		Cap. 16 kg/H 8"x6"x8"			
		Press 16 kg/cm²			
		Suc. Bore 4" Del Bore 3"			
		Cylinder Body Cast Iron			
20(87)	"	Horizontal Duplex Worthington	1	"	"
		Cap. 20 kg/H 8"x6"x8"			
		Normal Press 16 kg/cm²			
		Suc. Bore 4" Del Bore 3"			
		Cylinder Body: Cast Iron			
20(88)	"	Simplex Double Acting Hydrol	1	Sheet 30 of	"
		Cap. 18 kg/H 14"x7"x12"		802 Sheet	
		Normal Press 16 kg/cm²			
		Suc. Bore 4" Del Bore 3"			
		Oil Cylinder Body: Cast Steel			
20(89)	"	Horizontal Simplex Hydrol	1	Sheet 31 of	"
		Cap. 13 kl 14"x7"x12"		802 Sheet	
		Normal Press 16 kg/cm²			
		Suc. Bore 4" Del Bore 3"			
		Oil Cylinder Body: Cast Steel			
20(96)	"	Simplex Double Acting Hydrol	1	Sheet 30 of	Bldg No. 71
		Cap. 12 kg/H 10"x6"x10"		802 Sheet	
		Normal Press 16 kg/cm²			
		Suc. Bore 3" Del Bore 2½"			
		Oil Cylinder Body Cast Steel			
26(97)	"	Simplex Double Acting Hydrol	1	Sheet 18 of 802 Sheet	"

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Dw. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
	Steam Pump	Cap. 5 Kl/H 10"×6"×10"			
		Normal Press 16 kg/cm²			
		Suc. Bore 3" Del Bore 2"			
		Oil Cylinder Body Cast Steel			
2 6 (99)	"	Vertical Simplex Double Acting Weir	1	Sheet 41 of	Bldg No. 71
		Cap. 10 kl/H 7"×5"×7"		802 Sheet	
		Normal Press 5 kg/cm²			
		Cylinder Body Gun Metal			
20 (100)	"	Simplex Double Acting Weir	1	"	"
		Cap. 10 kl/H 7"×5"×7"			
		Suc. Bore 3" Del Bore 3"			
		Cylinder Body Gun Metal			
20 (101)	Air Compressor	Vertical Steam Driven Simplex	1	Sheet 42 of	"
		Cap. 12 m³/H 7½"×5"×10"		802 Sheet	
		Normal Press 3 kg/cm²			
		Del. Bore 1½" Air Cooling			
20 (102)	"	Vertical Steam Driven Simplex	1	Sheet 46 of	"
		Cap. 10 m³/H 7½"×5"×10"		802 Sheet	
		Normal Press 3 kg/cm²			
		Del. Bore 1½ Air Cooling			
20 (105)	Steam Pump	Duplex Double Acting	1	Sheet 41 of	"
		Cap. 2 kl/H 4"×3"×6"		802 Sheet	
		Suc. Bore 1½" Del. Bore 1½"			
		Cylinder Body Cast Iron			
20 (107)	"	Simplex Double Acting Hyhol	1	Sheet 38 of	"
		Cap. 12 kl/H 14"×6"×12"		802 Sheet	
		Normal Press Unknown			
		Suc. Bore 4" Del Bore 3"			
		Oil Cylinder Body Cast Steel			
20 (110)	"	Simplex Double Acting Hyhol	1	Sheet 35 of	"
		Cap. 4 kl/H 6"×4"×10"		802 Sheet	

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Prov. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks (Bldg. No.)
	Steam Pump	Normal Press 5 kg/cm²			
		Temp. 180°C Suc. Bore 4"			
		Del. Bore 3" With Water Jacket			
		Oil Cylinder Body Cast Steel			
20 (111)	"	Simplex Double Acting Hydrol	1	Sheet 35 of	Bldg No. 71
		Cap. 6 kg/H 6"×5"×12"		802 Sheet	
		Normal Press 2 kg/cm²			
		Normal Temp 200°C			
		Suc. Bore 3" Del. Bore 2"			
		With Water Jacket Oil			
		Cylinder Body Cast ~~Steel~~ Iron			
20 (112)	"	Simplex Double Acting Hydrol	1	Sheet 18 of	"
		Cap. 6 kg/H 10"×6"×10"		802 Sheet	
		Normal Press 16 kg/cm²			
		Suc. Bore 3" Del. Bore 2"			
		Cylinder Body Cast Steel			
20 (113)	"	Simplex Double Acting Hydrol	1	Sheet 38 of	"
		Cap. 5 kg/H 6"×4"×10"		802 Sheet	
		Normal Press 15 kg/cm²			
		Normal Temp 205°C			
		Cylinder Body Cast Steel			
		With Water Jacket Suc. Bore			
		3" Del. Bore 2"			
20 (114)	"	Simplex Double Acting Hydrol	1	Sheet 39 of	"
		Cap. 6 kg/H 6"×5"×12"		802 Sheet	
		Normal Press 10 kg/cm²			
		Normal Temp 200°C			
		Cylinder Body Cast Steel			
		With Water Jacket			
		Suc. Bore 3" Del. Bore 2"			
20 (115)	"	Vertical Simplex Wear	1	Sheet 42 of 802 Sheet	"

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Inv. No	Name of Machinery	Breif Specification	Quantity (Item)	Sheet No	Remarks (Bldg No.)
	Steam Pump	Cap. 10 kl/H 7"×5"×7"			
		Suc. Bore 3" Del. Bore 3"			
		Cylinder Body Gun Metal			
20 (116)	"	Duplex Double Acting	1	Sheet 40 of	Bldg No. 71
		Cap. 3 kl/H 4½"×2¾"×4"		802 Sheet	
		Suc. Bore 1½" Del. Bore 1"			
20 (118)	"	Duplex Double Acting	1	Sheet 41 of	"
		Cap. 0.5 kl/H 2½"×1½"×3"		802 Sheet	
		Suc Bore 1" Del. Bore 1"			
		Cylinder Body. Cast Iron			
		With Steam Heater Heating			
		Surface 3 m² Dia 0.3 m L. 1.0 m			
20 (119)	"	Duplex Double Acting	1	Sheet 42 of	"
		Cap. 0.5 kl/H 2½"×1½"×3"		802 Sheet	
		Suc. Bore 1" Del Bore 1"			
		Cylinder Body Cast Iron			
20 (120)	"	Simplex Double Acting. Weir	1	Sheet 31 of	"
		Cap. 8 kl/H 8"×6"×8"		802 Sheet	
		Normal Press Unknown			
		Suc Bore 3" Del. Bore 2½"			
		Cylinder Body Gun Metal			
20 (121)	"	Duplex Double Acting	1	Sheet 33 of	
		Cap. 13 kl/H 7"×6"×8"		802 Sheet	
		Normal Press 15 kg/cm²			
		Suc. Bore 4" Del. Bore 3"			
		Cylinder Body. Cast Iron			
20 (122)	"	Vertical Simplex Weir	1	Sheet 39 of	"
		Cap. 6 kl/H 6"×4"×10"		802 Sheet	
		Normal Press 10 kg/cm²			
		Cylinder Body. Gun Metal			
		Suc. Bore 3" Del. Bore 2"			

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Inv. No	Name of Machinery	Breif Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20 (125)	Propane Tank	Vertical Cylinderical	1	Sheet 16 of	Fukugawa
		Cap. 14 Kl Dia 1.4m H. 3.3m		802 Sheet	
		Shell Thick 25 mm			
		Construction Welded			
		Normal Press 9~16 kg/cm²			
20 (126)	"	"	1	Sheet 17 of 802 Sheet	"
20 (127)	Wash Tank	Horizontal Cylinderical Bubble	1	Sheet 32 of	
		Plate. Normal Temp 50°C		802 Sheet	"
		Press 16 kg/cm² Dia 1.4m			
		L. 6.5m Shell Thick 25 mm			
20 (137)	Steam Pump	Horizontal Duplex Double Acting	1	Sheet 20 of	Bldg No. 71
		Cap. 4 Kl/H 8"x 4"x 8"		802 Sheet	
		Normal Press 3 kg/cm²			
		Suc. Bore 3" Del Bore 2½"			
		Cylinder Body. Cast Iron			
20 (141)	Tank	Vertical Column	1	Sheet 47 of	Fukugawa
		Cap. 20 Kl Dia 3m H. 3.5m		802 Sheet	
		Shell Thick 9 mm			
		Construction Riveted			
20 (142)	Receiver	Vertical Column	1	Sheet 36 of	"
		Cap. 20 Kl Dia 3.2 m H. 3 m		802 Sheet	
		Shell Thick 9 mm			
		Construction Riveted			
20 (143)	Heat Exchanger	Shell and Tubes	1	Sheet 22 of	"
		Heating Surface 25 m²		802 Sheet	
		Normal Temp -19°C			
		Press 1.5 kg/cm²			
		Tubes Admiralty Brass 2 Pass			
		O.D 20mm L. 2.6m 168 Pieces			
		Sheel Steel Plate			
		Dia 0.45m L. 3.1m			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks (B.Ldg No.)
20 (144)	Heat Exchanger	Shell and Tubes	1	Sheet 23 of	Fukugawa
		Heating Surface 25 m²		302 Sheet	
		Normal Temp -190°C			
		Press 1.5 kg/cm²			
		Tubes Admiralty Brass 2 Pass			
		O.D 20 mm L. 2.6 m 168 Pieces			
		Shell Steel Plate			
		Dia 0.45 m L. 3.1 m			
20 (146)	Gas Separator	Vertical Column	1	Sheet 25 of	"
		Normal Temp -40°C		302 Sheet	
		Press 2 kg/cm²			
		Dia 0.85 m H. 3 m T. 9 mm			
		Inlet 2" Outlet 2"			
20 (147)	"	"	1	"	"
20 (148)	Middle Tank	Horizontal Cylindrical	1	"	"
		Cap. 5 kl Dia 1.4 m L. 3.5 m			
		Shell Thick 12 mm			
		Construction Welded			
20 (149)	Receiver	Horizontal Cylindrical	1	Sheet 28 of	"
		Cap. 12 kl Dia 1.9 m L. 4.8 m		302 Sheet	
		Shell Thick 20 mm			
		Press 9 kg/cm²			
		Construction Riveted			
20 (151)	Cooling Tower	Vertical Bubble Plate ×5	1	Sheet 21 of	"
		Normal Temp -23°C		302 Sheet	
		Press 1.2 kg/cm²			
		Up. Dia 0.4 m H. 3 m T. 9 mm			
		Under Dia 0.8 m H. 4.1 m T 12 mm			
		Oil Inlet 35 mm Outlet 35 mm			
		Vapor 3". Construction Welded			
20 (152)	"	"	1	Sheet 22 of 302 Sheet	"

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20 (153)	Cooling Tower	Vertical Bubble Plate x 5	1	Sheet 22 of	Fukugawa
		Normal Temp -23°C		802 Sheet	
		Press 1.2 kg/cm²			
		Up. Dia 0.4m H.3m T.9mm			
		Under Dia 0.8m H.4.1m T.12mm			
		Oil Inlet 35mm Outlet 35mm			
		Vapor 3" Construction Welded			
20 (154)	"	Vertical Bubble Plate x 14	1	Sheet 23 of	"
		Normal Temp -42°C		802 Sheet	
		Press 1.4 kg/cm² Up. Dia 0.61m			
		H.4m Shell Thick 9mm			
		Under Dia 1.4m H.5m			
		Thick 25mm			
20 (155)	Cooling Tower	Vertical Bubble Plate x 14	1	Sheet 20 of	"
		Normal Temp 27°C		802 Sheet	
		Press 9 kg/cm²			
		Up. Dia 0.61m H.4m T.12mm			
		Under Dia 1.4m H.5m T.22mm			
		Construction Riveted			
20 (156)	"	Vertical Bubble Plate x 14	1	Sheet 21 of	"
		Normal Temp 25°C		802 Sheet	
		Press 8 kg/cm²			
		Up. Dia 0.61m H.4m T.12mm			
		Under Dia 1.4m H.5m T.22mm			
		Construction Riveted.			
20 (160)	Heat Exchanger	Shell and Tubes	1	Sheet 23 of	"
		Heating Surface 25m²			
		Normal Temp -19°C		802 Sheet	
		Press 1.5 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L.2.6m 168 Pieces			
		Shell. Steel Plate			
		Dia. 0.45m L.3.1m			

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Inv No.	Name of Machinery	Brief Specification	Quantity (Pcs)	Sheet No.	Remarks (Bldg No.)
20 (161)	Evaporating Tower	Vertical Bubble Plate x14	1	Sheet 19 of	Fukugawa
		Normal Temp 50°C		802 Sheet	
		Press 16 kg/cm²			
		Up. Dia 0.61m H.4m T.12mm			
		Under Dia 1.40m H.5m T.25mm			
		Construction Riveted			
20 (162)	Propane Heater	Shell and Tubes	1	Sheet 30 of	"
		Heating Surface 20m²		802 Sheet	
		Normal Temp. 50°C Press 16 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D. 20mm L. 2.06m 166 Pieces			
		Shell Steel Plate			
		Dia. 0.47m L. 2.57m			
20 (163)	Heat Exchanger	Shell and Tubes	1	Sheet 34 of	"
		Heating Surface 5m²		802 Sheet	
		Normal Temp Unknown			
		Tube. Admiralty Brass 2 Pass			
		O.D 20mm L. 2.07m 103 Pieces			
		Shell. Steel Plate			
		Dia. 0.38m L. 2.5m			
20 (164)	"	Shell and Tubes	1	Sheet 35 of	"
		Heating Surface 15m²		802 Sheet	
		Normal Temp. Unknown			
		Tube. Admiralty Brass 2 Pass			
		O.D 20mm L. 2.21m 103 Pieces			
		Shell. Steel Plate			
		Dia 0.38m L. 2.60m			
20 (165)	Propane Evaporator	Vertical Bubble Plate x13	1	Sheet 34 of	"
		Normal Temp 95°C Press 15 kg/cm²		802 Sheet	
		Dia 0.7m H.10m T.16mm			
20 (166)	Heat Exchanger	Shell and Tubes	1	Sheet 21 of 802 Sheet	"

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No	Remarks (Bldg No.)
	Heat Exchange	Heating Surface 25 m²			
		Normal Temp −1°C			
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L. 2.6m 168 Pieces			
		Shell Steel Plate Dia. 0.45m L. 3.1m			
20 (167)	"	Shell and Tubes	1	Sheet 33 of	Fukugawa
		Heating Surface 25 m²		802 Sheet	
		Normal Temp. unknown			
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L. 2.6m 166 Pieces			
		Shell Steel Plate			
		Dia 0.47m L 3.1m			
20 (168)	Solvent Tank	Horizontal Cylindrical	1	Sheet 31 of	"
		Cap. 19kl. Dia. 1.9m L. 6.65m		802 Sheet	
		Shell Thick 12mm			
		Construction Welded			
20 (170)	Evaporator	Vertical Bubble Plate × 11	1	Sheet 35 of	"
		and Bubble. Tray × 8		802 Sheet	
		Normal Temp. 250°C			
		Normal Press 1.5 kg/cm²			
		Dia 0.7m H. 10m T. 9mm			
20 (171)	Wash Tank	Horizontal Cylindrical Bubble	1	Sheet 32 of	"
		Plate. Normal Temp. 50°C Press. 16 kg/cm²		802 Sheet	
		Dia. 1.4m L. 6.5m Shell Thick 25mm			
20 (172)	Evaporator	Vertical Bubble Plate × 11	1	Sheet 37 of	"
		Normal Press .16 kg/cm²		802 Sheet	
		Temp. 75°C			
		Up. Dia. 0.7m H. 6m T. 16mm			
		Under Dia 1.4m H. 4.5m Shell Thick 25mm			
20 (173)	Middle Tank	Vertical Cylindrical Cap. 5kl Dia 1.4m L. 3.5m	1	Sheet 27 of 802 Sheet	"
		Shell Thick 12mm Construction Welded			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
20 (174)	Solvent Tank	Horizontal Cylindrical	1	Sheet 31 of	Fukugawa
		Cap. 14Kl Dia 1.8m L. 5.65m		802 Sheet	
		Shell Thick 12mm			
		Construction welded			
20 (175)	Induction Motor	Enclosed Cage. Cage Rotor 10KW	1	Sheet 28 of	Bldg No. 27
		3 Phase 220V. 34A		802 Sheet	
		1,150 R.P.M 6P. 60 cycle			
20 (176)	Gear Pump	Motor Driven Cap. 3Kl/H	1	"	Bldg No. 123
		Normal Press 15 Kg/cm²			
		Temp. Unknown			
		Nominal Size Unknown			
		110 R.P.M Suc. Bore 2"			
		Del Bore 2"			
20 (178)	Power Pump	Horizontal Duplex Double Acting	1	Sheet 27 of	"
		Belt Driven by Motor		802 Sheet	
		Cap. 15 Kl/H Press 21 Kg/cm²			
		Nominal Size 105 mm × 150 mm			
		58 R.P.M. Suc. Bore 2½"			
		Del. Bore 2" Body Cast Iron			
		Induction Motor Enclosed			
		20 HP 1,160 R.P.M 220V Motor missing			
20 (179)	Plunger Pump	Vertical Triplex Motor Driven	1	Sheet 25 of	"
		Cap. 15 Kl/H Normal Press		802 Sheet	
		6 Kg/cm² Nominal size 105 mm			
		× 120 mm Temp − 40°C			
		90 R.P.M. Suc. Bore 2½"			
		Del. Bore 2" Induction			
		Motor Enclosed 5 HP.			
		1,156 R.P.M 220V motor missing			
20 (180)	Rotary Pump	Motor Driven Kagano	1	"	"
		Cap. 15 Kl/H Normal Press 5 Kg/cm²			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
	Rotary Pump	Temp −40°C			
		Nominal Size unknown			
		300 R.P.M Suc. Bore 4"			
		Del. Bore 3"			
		Induction Motor Enclosed			
		Ⓔ 7.5 HP 1,160 R.P.M 220V motor missing			
20 (181)	Steam Pump	Duplex Double Acting	1	Sheet 25 of	Bldg No. 43
		Cap. 0.2 kl/H 2½"×1½"×4"		802 Sheet	
		Nominal Press 2 kg/cm²			
		Suc. Bore 1½" Del. Bore ¾"			
		Cylinder Body Cast Iron			
20 (182)	Rotary Pump	Motor Driven. Cap. 15 kl/H	1	Sheet 32 of	"
		Normal Press unknown		802 Sheet	
		300 R.P.M			
		Nominal Size unknown			
		Induction Motor Enclosed			
		Ⓔ 10 HP 1,160 R.P.M 220V motor missing			
20 (184)	"	Motor Driven Kagano	1	Sheet 28 of	"
		Cap. 5 kl/H Normal Press 1 kg/cm²		802 Sheet	
		290 R.P.M			
		Nominal Size 152 mm			
		Induction Motor Enclosed			
		3 HP 220V 1,150 R.P.M motor missing			
20 (185)	"	"	1	Sheet 29 of 802 Sheet	"
20 (186)	Gear Pump	Motor Driven. Cap. 3 kl/H	1	Sheet 30 of	"
		Normal Press 15 kg/cm²		802 Sheet	
		110 R.P.M Suc. Bore 2"			
		Del. Bore 2" Body Cast Iron			
		Induction Motor Enclosed			
		5 HP 1,150 R.P.M 220V motor missing			
20 (193)	Heater	Shell and Tubes Heat	1	Sheet 18 of	Area No. 5
		Exchanging Surface 20 m²		802 Sheet	

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Normal Temp 50°C			
		Normal Press 16 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L. 2.16m 166 Pieces			
		Shell Steel Plate			
		Dia 0.48m L. 2.5m			
20 (194)	Heat Exchanger	Shell and Tubes	1	Sheet 36 of	Fukugawa
		Heating Surface 35 m²		802 Sheet	
		Normal Temp 100°C			
		Tube, Admiralty Brass 2 Pass			
		O.D 20mm L. 2.6 m 216 Pieces			
		Shell Steel Plate			
		Dia. 0.52 m L. 3.1 m			
20 (195)	Solvent Cooler	Shell and Tubes	1	Sheet 33 of	Area No. 5
		Cooling Surface 15 m²		802 Sheet	
		Normal Temp Unknown			
		Press 16 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L. 2.2m 103 Pieces			
		Shell Steel Plate			
		Dia. 0.38 m L. 2.6 m			
20 (196)	Heat Exchanger	Shell and Tubes	1	Sheet 34 of	"
		Heating Surface 16 m²		802 Sheet	
		Normal Temp. Unknown			
		Tube Admiralty Brass 2 Pass			
		O.D 20 mm L. 2.6 m 103 Pieces			
		Shell Steel Plate			
		Dia 0.38 m L. 3m			
20 (197)	Heater	Shell and Tubes	1	Sheet 19 of	"
		Heating Surface 10 m²		802 Sheet	
		Normal Temp 100°C			

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Press 16 kg/cm²			
		Tubes Admiralty Brass 2 Pass			
		O.D 20mm L. 2.06 m 72 Pieces			
		Shell Steel Plate			
		Dia. 0.38 m L: 2.5 m			
20 (198)	Cooler	Shell and Tubes	1	Sheet 20 of	Area No. 5
		Cooling Surface 10 m²		802 Sheet	
		Normal Temp 32°C			
		Tubes Admiralty Brass 2 Pass			
		O.D 20mm L 2.2 m 72 Pieces			
		Shell Steel Plate			
		Dia. 0.38 m L. 2.5 m			
20 (199)	Heater	Shell and Tubes	1	Sheet 29 of	"
		Heating Surface 30 m²		802 Sheet	
		Normal Temp 100°C			
		Press 1 kg/cm²			
		Tube. Admiralty Brass 2 Pass			
		O.D 20 mm L. 2.6 m 210 Pieces			
		Shell Steel Plate			
		Dia. 0.52 m L. 3.1 m			
20 (200)	Heat Exchanger	Shell and Tubes	1	Sheet 37 of	"
		Heating Surface 25 m²		802 Sheet	
		Normal Temp 50°C			
		Normal Press 16 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		O.D. 20 mm L. 2.6 m 168 Pieces			
		Shell; Steel Plate			
		Dia. 0.47 m L. 3.1 m			
20 (201)	"	Shell and Tubes	1	"	"
		Heating Surface 30 m²			
		Normal Temp. 50°C Press 16 kg/cm²			

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Tube Admiralty Brass 2 Pass			
		O.D 20mm L. 2.6m 210 Pieces			
		Shell Steel Plate			
		Dia 0.52m L. 3.15m			
20 (202)	Heat Exchanger	Shell and Tubes	1	Sheet 37 of	Area No.5
		Heating Surface 5m²		802 Sheet	
		Normal Temp. 50°c Press 16 kg/cm²			
		Tube Admiralty Brass 2 Pass			
		Shell Steel Plate			
		Dia 0.3m L. 1.6m			
20 (203)	Oil Tank	Vertical Cylindrical	1	Sheet 48 of	Area No.4
		Cap. 100 Kl Dia 4.3m H.7m		802 Sheet	
		Steel Plate Thick 6mm			
		Construction Riveted			
		Concreted Around			
20 (204)	"	"	1	"	"
20 (205)	"	"	1	"	"
20 (206)	"	"	1	"	"
20 (207)	"	"	1	Sheet 49 of 802 Sheet	"
20 (208)	"	"	1	"	"
20 (212)	Steam Pump	Simplex Double Acting	1	Sheet 42 of	Bldg No.71
		Cap. 2 Kl/H 4"x 3"x 6"		802 Sheet	
		Suc. Bore 1½" Del. Bore 1½"			
		With Seal Box			
		Cylinder Body Cast Iron			
20 (213)	"	Horizontal Simplex	1	Sheet 20 of	"
		Cap. 4 Kl/H 6"x 4"x 10"		802 Sheet	
		Normal Press 2 kg/cm²			
		Del. Bore 1½" Suc. Bore 1½"			
		Cylinder Body Cast Iron			
20 (214)	"	Simplex Double Acting	1	Sheet 40 of 802 Sheet	"

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Cap. 2 kl/H 4"×3"×6"			
		Normal Press Unknown			
		Suc. Bore 1½" Del. Bore 1½"			
		Cylinder Body Cast Iron			
20 (216)	Plunger Pump	Vertical Triplex Motor Driven	1	Sheet 29 of	Bldg No. 71
		Cap. 2 kl/H		802 Sheet	
		Normal Press Unknown			
		Nominal Size 75 mm × 75 mm			
		Suc. Bore 2" Del. Bore 1½"			
		Induction Motor Enclosed			
		5 HP 220 V 1,150 R.P.M			
20 (217)	Steam Pump	Motor missing Duplex Double Acting	1	Sheet 41 of	"
		Cap. 2 kl/H 4"×3"×6"		802 Sheet	
		Suc. Bore 1½" Del Bore 1½"			
		Cylinder Body Cast Iron			
20 (218)	Stack	Steel Plate Stack	1	Sheet 49 of	Area No. 4
		Top. Dia 1.48 m H. 35 m		802 Sheet	
		Plate Thick 6~9 mm			
146	Gas Compressor	Horizontal Simplex Double	1	Sheet 43 of	Bldg No. 12
		Acting 2 Stages Motor		802 Sheet	
		Driven Cap. 500 m³/H Suc. Press			
		1 kg/cm² Del. Press 17 kg/cm²			
		Suc. Temp −100°C Water			
		Cooling Del Bore 3"			
147	"	"	1	"	"
241 (6)	Induction Motor	Enclosed Cage Rotor	1	"	Bldg No. 51
		110 HP 3,300 V 17.9 AMP			
		8 Pole 60 Cycle 873 R.P.M			
241 (7)	"	"	1		"
241 (8)	"	"	1	Sheet 46 of 802 Sheet	"
676	Oil Tank	Vertical Cylindrical	1	Sheet 47 of 802 Sheet	Area No. 4

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Cap. 250 Kl Dia 6.60 m			
		H. 7.70 m			
		Side Plate Thick 8 mm			
		Construction Riveted			
			~~Total~~ 154		

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Inst. No.	Name of machinery	Brief Specification	Quantity (Item)	sheet No.	Remarks (Bldg No.)
20 (18)	Tank	Vertical Cylindrical Cap. 15 kl Dia. 2.00 m H. 6.5 m Const. welded. plate thickness 32 mm	1	sheet No. 616 of 802 sheets	area No. 4
20 (19)	Evaporating Tower	Vertical Dia. 1.40 m H. 2.00 m Shell thickness 25 m.m.	1	Sheet No. 617 of 802 sheets	"
20 (24)	steam pump	2 kl/H	1	Omitted from Reporation list in Error	Bldg No. 22
20 (29)	Blower	1,130 r.p.m. 2 HP	1	"	" 27
20 (50)	Oil Tank	Vertical Cylindrical cap 6 kl Dia. 1.50 m H 3.50 m const. Riveted. plate thickness 16 m.m.	1	Sheet No. 630 of 802 sheets	area No. 5.
20 (63)	Filter	Hand press plate Dimention 530 m.m. × 530 m.m. Filter plate 25 p'cs	1	Sheet No. 685 of 802 sheets	Bldg. No. 71
20 (64)	"	" Filter plate 24 "	1	"	"
20 (65)		" Filter plate 26"	1	"	"
20 (71)	Heat Exchanger	Shell and tube Heating Surface 10 m² Normal Press. 16 kg/cm² tube inlet 2" Outlet 2" shell " 2" " 2"	1	Sheet No. 786 of 802 Sheets	Fukugawa

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Inv. No.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Blag No.)
		Dia 0.38m L. 23.5m			
20 (74)	Tank	Horizontal Cylindrical Cap. 4kl Dia. 1.3m L. 3.0m Const. Riveted Plate thickness 25mm	1	Sheet No. 786 of 802 sheet	Fukugawa
20 (75)	Propane Separating Tower	Dia 0.3m H 9.0m	1	Omitted from Reparation List in Error	"
20 (78)	Heat Exchanger "	Shell and tube Heat surface 2m² tube inlet 2" outlet 2" shell inlet 2" outlet 2" Dia 0.18m L. 5.5m	1	Sheet No. 786 of 802 sheet	"
20 (79)	"	Shell and tube Heat surface 5m² tube inlet 4" outlet 4" shell " 2" " 2" Dia. 0.35m L. 4.4m	1	Sheet No. 786 of 802 sheets	"
20 (81)	Heater	Shell and tube Heating surface 10m²	1	Sheet No. 785 of 802 sheets	"
20 (82)	"	Shell and Tube Heating Surface 10m² Dia 0.5m L. 2.2m	1	Sheet No. 785 of 802 sheets	"

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Inv. No	Name of Machinery	Brief Specification	Quantity (Item)	sheet No. ~~sheet No~~	Remarks (Bldg No.)
20 (83)	Heater	Shell and Tube Heating Surface 10m² Dia 0.5m L. 2.2m	1	sheet No. 786 of 802 sheets	Fukugawa
20 (84)	Receiver	Vertical Cylindrical Cap. 0.7 Kl Dia. 0.8m H. 1.4m	1	sheet No. 786 of 802 sheets	"
20 (90)	Induction Motor	Enclosed Case Rotor 1.5HP 3phase 220V 6poles 60 cycle 1150 R.p.m	1	sheet No. 685 of 802 sheets	Bldg No. 71
20 .(92)	Steam pump	0.1 Kl/H	1	Omitted from Reparation List in Error	Bldg No. 71
20 (94)	Heater	shell and tube Heating surface 3m² tube steel Inlet Bore 2" outlet Bore 2" shell Steel Inlet Bore 2" outlet Bore 2" Dia 0.25m L 1.10m	1	sheet No. 685 of 802 sheets	"
20 (95)	Compressor	Specification unknown	1	Omitted from Reparations List in Error	Bldg No. 71
20 (98)	Steam pump	about 10 Kl/H	1	"	"
20 (103)	"	Horizontal Simplex Double	1	sheet No. 685	"

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Inv. NO.	Name of machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Acting cap 1 kl/H 4"x3"x6" normal press 20 kg/cm² Suc. Bore 1½" Del Bore 1" Cylinder Body Cast Steel Note: For turbine oil with water jacket			
20 (104)	Steam pump	Horizontal Simplex Double Acting Cap 2 kl/H 6"x3½x6" Normal press 20 kg/cm² Suc. Bore 1½" Del Bore 1" Cylinder Body Cast steel Note: For Reflux Oil	1	sheet No. 686 of 802 sheets	Bldg No. 71
20 (106)	"	Horizontal Simplex Double acting Hybol Cap. 16 kl/H 6"x4"x8" normal press 10 kg/cm² Suc Bore 4" Del Bore 3" Cylinder Body Cast steel Note: with water jacket	1	"	"
20 (108)	"	Horizontal Simplex Double acting cap 2 kl/H 5½"x2¼"x7" normal press 15 kg/cm² Suc. Bore 2" Del Bore 1½"	1	sheet No. 689 of 802 sheets	"

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Inv. NO.	Name of Machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Cylinder Body Cast Steel			
20 (109)	Steam pump	Horizontal Simplex Double Acting Cap. 2.5 Kl/H 6"x3"x6" Normal press 16 kg/cm² Suc. Bore 2½". Del Bore 2" Cylinder Body Cast steel	1	sheet No. 689 of 802 sheets	Bldg No. 71
20 (117)	plunger pump	2 Kl/H	1	Omitted from Reparations List in Error	"
20 (123)	Reduction Gear	Gear Speed Ratio unknown	1	Sheet No. 685 of 802 sheets	"
20 (124)	"	" "	1	"	"
20 (128)	Gas Compressor	Horizontal Simplex 4 stages motor and steam Driven Cap. 500 m³/H press 50 kg/cm² r.p.m. unknown Del. Bore 25 m.m. Suc Bore 100 m.m Induction ~~motor~~ missing	1	sheet No. 595 of 802 sheets	Bldg No. 12
20 (131)	Heat Exchanger	Shell and tube Heating Surface 50 m² tube inlet 4" outlet 4" Shell inlet 6" outlet 6"	1	Sheet No. 786 of 802 sheets	Fukugawa

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Inv. No.	Name of machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Dia 0.55m L. 5.0m			
20 (132)	"	"	1	"	"
20 (133)	Heat Exchanger	Shell and tube Heating Surface 50m² tube inlet 4" outlet 4" Shell " 6" " 6" Dia 0.55m L. 5.0m	1	Sheet No. 780 of 802 sheets	Fukugawa
20 (134)	"	"	1	"	"
20 (135)	Tank	Vertical Cylindrical Cap. 6kl Dia 1.8m H 2.4m Const. welded plate thickness 8mm	1	"	"
20 (136)	Cooler	Shell and tube cooling Surface 10m² tube inlet 1½" outlet 1½" shell " 2" " 2" Dia 0.7m L. 2.55m	1	"	"
20 (145)	Water Separator	Vertical Cylindrical Cap 3.5kl Dia 1.2m H. 3.3m Const. Riveted plate thickness 9m.m	1	sheet No. 788 of 802 sheets	"
20 (150)	Acid Treating Tower	Vertical Cylindrical Cap 6kl Dia 1.0m H 6.5m	1	"	"

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Inv. No	Name of machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Const. welded plate thinkness 6 mm			
20 (158)	Receiver	Vertical Cylindrical Cap. 6 kl Dia 1.9m H 2.8m Const Riveted plate thickness 9m.m	1	sheet No. 785 of 802 sheets	Fukugawa
20 (159)	Cooler	Shell and tube Cooling Surface 10 m² tube inlet 1½" outlet 1½" Shell inlet 2" " 2" Dia 0.7m L. 2.55m	1	sheet No. 787 of 802 sheets	"
20 (169)	Tank	Vertical Cylindrical Cap 10 kl Dia 2.6m H 2.2m Const. Riveted plate thinkness 9m.m.	1	Sheet No. 788 of 802 sheets	"
20 (177)	steam pump	10 kl/H	1	Omitted from Reparation List in Error	Bldg No 163
20 (183)	"	2 kl/H	1	"	"
20 (190)	Gas Separator	Vertical Cylindrical Cap 1.7 kl Dia 0.85m H 3.00m const. Riveted plate thickness 9m.m	1	Sheet No. 631 of 802 Sheets	Area No. 5
20 (191)	Cooler	Shell and tubes Vertical	1	"	"

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Inv. No.	Name of machinery	Brief Specification	Quantity (Item)	Sheet No.	Remarks (Bldg No.)
		Cooling surface 10 m² Normal temp. and press Unknown Tube shell 2" passes inlet 3" outlet 2" Shell steel Dia 0.68m L 2.80m inlet 8" outlet 5"			
20 (192)	"	"	1	sheet No. 631 of 802 Sheets	Area No. 5
20 (209)	"	Vertical shell and tubes Cooling Surface 15 m² tubes steels inlet 1½" outlet 1" Shell steel inlet 6" outlet 2½" Dia 0.80m H 3.00m	1	sheet No. 616 of 802 sheets	Area No. 4
20 (210)	"	"	1	"	"
20 (211)	Separator	Vertical Cylindrical Cap 1 kl Dia 0.8m H. 2.60m Const. Welded plate thickness 10 m.m With heater Oil	1	sheet No. 617 of 802 sheets	"
20 (215)	Tank	Vertical Cylindrical Cap 6 kl	1	sheet No. 788	Fukugawa

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Inv. NO.	Name of machinery	Brief Specification	Quantity (Item)	Sheet NO.	Remarks (Bldg NO.)
		Dia 1.8m H 2.4m Const. welded plate thickness 9m.m.		of 402 Sheets	
20 (219)	Tank	Vertical Cylindrical Cap 1.4 kl Dia 1.00m H 1.80m Const. welded plate thickness 16m.m	1	sheet NO. 616 of 802 sheets	Area NO. 4
		Total	206		

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List of Facilities for Application

Code No. 45 ~ 07

Name of Plant. Former 3rd Naval Fuel Depot

Address of Plant. Tokuyama City. Yamaguchi Pref.

1. Machinery (Tanks)

Inv. No.	Name of Machinery	Brief Specification	Quantity	Sheet No.	Remarks (Area No.)
297(21)	Oil Tank	Vertical Cylindrical Cap. 250 kl D. 7.00 m H. 750 m. Construction Riveted	1	Sheet 746 of 802 Sheet	Area No. 18
393	〃	Vertical Cylindrical Cap. 70 kl D. 4.50 m H. 4.50 m Construction Riveted	1	Sheet 404 of 802 Sheet	〃
295 (58)	〃	Vertical Cylindrical Water Top. Cap. 270 kl D. 7.20 m H. 7.20 m Plate Thick. 9 mm Construction Riveted	1	Sheet 287 of 802 Sheet	Area No. 10
295 (59)	〃	〃	1	〃	〃
295 (60)	〃	〃	1	〃	〃
295 (61)	〃	〃	1	Sheet 288 of 802 Sheet	〃
317 (10)	〃	Vertical Cylindrical Cap. 200 kl D. 10.00 m	1	Sheet 137 of 802 Sheet	Area No. 16

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Inv. No.	Name of Machinery	Brief Specification	Quantity	Sheet No.	Remarks (Area No.)
		H. 350 m. Construction Riveted. Plate Thick 9mm			
319 (35)	Oil Tank	Vertical Cylindrical Cap. 200Kl D. 10.00 m H. 3.00 m Construction Riveted	1	Sheet 8 of 802 Sheet	Area No. 16
318 (22)	"	Vertical Cylindrical Cap. 200Kl D. 10.00 m H. 3.50 m Construction Riveted. Plate Thick 9mm	1	Sheet 128 of 802 Sheet	"
317 (4)	"	Vertical Cylindrical Cap. 50Kl. D. 6.10 m H. 1.90 m Construction Riveted. Plate Thick 9mm	1	Sheet 136 of 802 Sheet	"
317 (5)	"	"	1	"	"
317 (6)	"	"	1	Sheet 137 of 802 Sheet	"
317 (7)	"	"	1	"	"
317 (8)	"	"	1	"	"
317 (9)	"	"	1	"	"
318 (11)	"	"	1	Sheet 126 of 802 Sheet	"
318 (12)	"	"	1		"
318 (13)	"	"	1		"
318 (14)	"	Vertical Cylindrical Cap. 50Kl D. 6.10 m H. 1.00 m	1	Sheet 127 of 802 Sheet	"

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Inv. No.	Name of Machinery	Brief Specification	Quantity	Sheet No.	Remarks (Area No.)
		Construction Riveted Plate Thick 9mm H. 1.90 m			
318 (15)	Oil Tank	"	1	Sheet 127 of 802 Sheet	Area No. 16
318 (16)		"	1	"	"
318 (17)		"	1	"	"
318 (18)		"	1	"	"
318 (19)		"	1	"	"
318 (20)		"	1	"	"
318 (21)		"	1	"	"
326 (16)	"	Vertical Cylindrical Cap. 50 Kl D. 6.10 m H. 1.70 m. Construction Riveted. Plate Thickness 10 mm	1	Sheet 388 of 802 Sheet	Area No. 21
326 (17)	"	"	1	"	"
326 (18)	"	"	1	"	"
326 (19)	"	contruction weldeck	1	"	"
2 (41)	"	Vertical Cylindrical Cap. 300 kl D. 7.00 m H. 6.00 m Plate thickness 9 mm	1	Sheet 644 of 802 Sheets	Area No. 6
2 (42)	"	"	1	"	"
241 (80)	"	Vertical Cylindrical Cap. 50 kl D. 4.50 m H. 3.00 m	1	Sheet 291 of 802 Sheets	Area No. 8

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Inv. No.	Name of Machinery	Brief Specification	Quantity	Sheet No.	Remarks (Area No.)
		Plate thickness 9mm Const. Riveted.			
241 (81)	Oil Tank	"	1	Sheet 291 of 802 Sheets	Area No. 8
322 (34)	"	Vertical Cylindrical Cap. 50kl D.4.5m H.3.5m Plate thickness 9mm Const. Riveted	1	Sheet 173 of 802 Sheets	Area No. 18
322 (35)	"	"	1	"	"
327 (1)	"	Vertical Cylindrical Cap. 100kl D.6.50m H.2.47m Plate thickness 10 mm. Const. Riveted	1	Sheet 448 of 802 Sheets	Area No. 21
327 (2)	"	"	1	"	"
327 (3)	"	"	1	"	"
666	"	Vertical Cylindrical Cap. 170kl D.5.5m H.7.5m Plate thickness 9mm Const. Riveted	1	Sheet 640 of 802 Sheet	Area No. 6
668	"	Vertical Cylindrical Cap. 100kl D.4.8m H.6.0m Plate thickness 9mm Const. Welded	1	Sheet 615 of 802 Sheets	Area No. 4
669	"	"	1	"	"

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Inv. No.	Name of Machinery	Brief Specification	Quantity	Sheet No.	Remarks (Area No.)
670	Oil Tank	Vertical Cylindrical Cap. 60Kl D.4.6m H.4.0m Plate thickness 9mm Const. Riveted	1	Sheet 615 of 802 Sheets	Area No.4
671	"	"	1	"	"
672	"	"	1	"	"
673	"	"	1	"	"
674	"	Vertical Cylindrical Cap. 50Kl. D.3.6m. H.5.0m Plate thickness 9mm Const. Riveted.	1	Sheet 616 of 802 Sheets	"
675	"	Vertical Cylindrical Cap. 60Kl D.4.0m H.5.00m Plate thickness 9mm Const. Riveted.	1	"	"
		Total	48		
		Grand Total	244		