2. ミユッツ

SECTOR ENERGIA Y MINAS
INSTITUTO GEOLOGICO MINERO Y METALURGICO
INGEMMET

MINUTES OF DISCUSSIONS BETWEEN THE JAPANESE CONSULTATION TEAM AND THE REPRESENTATIVES OF THE INSTITUTE OF GEOLOGY MINING AND METALLURGY ON THE TECHNICAL COOPERATION PROJECT OF THE RECOVERY OF VALUABLE MINERALS FROM COMPLEX OXIDE ORES (SEGREGATION).

In accordance with the Agreement on Technical Cooperation between the Peruvian and Japanese Government for the Project on the Recovery of Valuable Minerals from Complex Oxide Ores, signed on February 25, 1983, in the City of Lima was held the conference on its implementation on June 11-20, 1984, at the Institute of Geology, Mining and Metallurgy (hereinafter referred to as INGEMMET) with the participation of Japanese Consultation Team, headed by Ing° Taira Sunami, Director of Mining and Industrial Development Cooperation Dept., Japan International Cooperation Agency (JICA) and the representatives of INGEMMET, headed by Ing° Francisco Sotillo Palomino, Executive Director of the Institute.

The participants at these meetings of Japanese Group were :

Ing° Taira Sunami, Dr. Hideo Takeda, Ing° Tadashi Kawai, Ing° Norio Hayashi, Mr. Takashi Sano; and Project Experts Ing° Hisashi Takahashi, Ing° Masahide Nakao, Ing° Hiromu Kido and Ing° Kinzo Asari.

From INGEMMET the Group was formed by :

Ing° Francisco Sotillo Palomino, Ing° Eleuterio León Rodriguez, Ing° Carlos Sotomayor Gonzales, Ing° Yorri Carrasco Pinares, Ing° Manuel Paz Maidana, Ing° Saúl Cárdenas Mandujano, Ing° Jorge Quispe Bustamante and Ing° Mercedes Misari Sánchez.

The purpose of the Conference was to confirm the works accomplished in the period of July 1983 - May 1984, and at the same time to make concrete the Annual Work Plan from April '84 to March '85 (Japanese Fiscal Year).

The conference was initiated and Ing°E. León gave the participants the Report "Evaluación Preliminar del Desarrollo del Proyecto de Cooperación Técnica Internacional entre JICA (Japón) e INGEMMET (Perú) en el Area de Segregación de Minerales Oxidados Refractarios de Cobre y Elementos Asociados (Nov. 1983 - Mayo 1984)" which had been prepared in cooperation with the Japanese experts, giving the detailed explanation of the Report for the participants to find its results satisfactory.

Thereafter, Ing° Taira Sunami submitted to Ing° Francisco Sotillo Palomino the "Annual Work Plan from April 1984 to March 1985" for consideration in the discussion.

After remarks and modifications suggested on the above mentioned documents by both sides of the members of the delegations, the following points were approved :

Av. Prol. Bermúdez 211-Jes. María Ap. 889-Tell 316233-Lima-Perú

(1) Annual Work Plan (Annex I - II)

(2) Annual Budget on the Peruvian Counterpart in the Segregation Project in the amount of S/. 348'700,000.

(3) New Peruvian counterpart personnel to the Project in consideration is as follows :

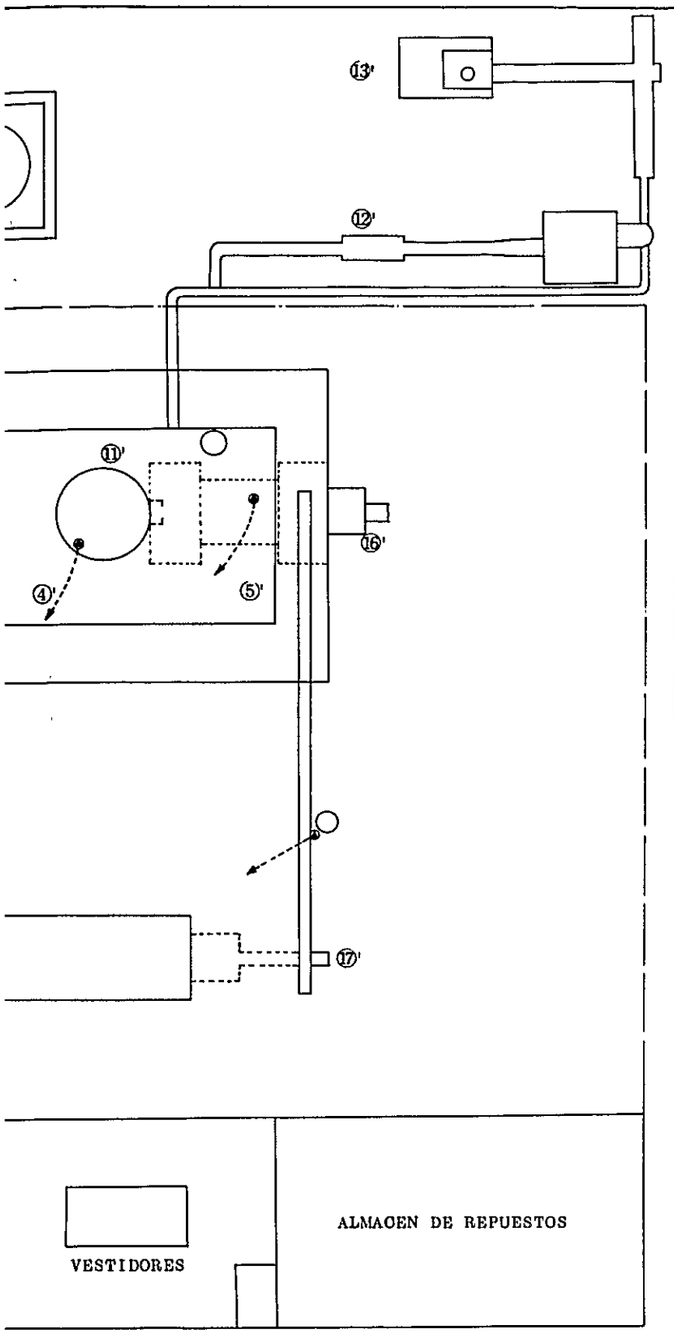
- 1 Geologist - Mineralogist
- 1 Assistant Investigator in Metallurgy
- 1 Secretary

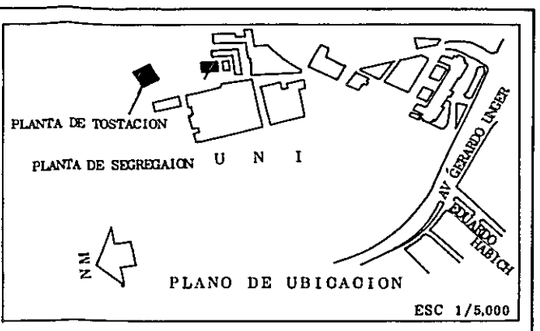
Both the delegations express the especial cordiality that has prevailed during the conference.

Lima, June 19th, 1984.

Ing° TAIRA SUNAMI
Leader
Japanese Consultation Team
Japan International Cooperation Agency
(JICA)
JAPAN.

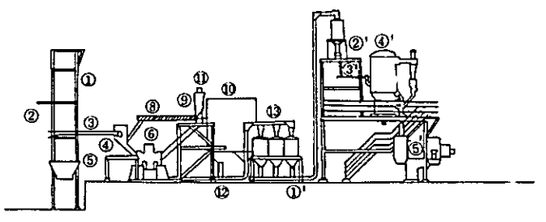
Ing° FRANCISCO SOTILLO PALOMINO



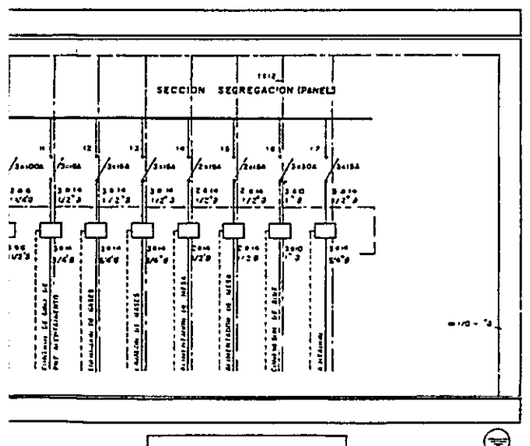


CLAVE	SECCION MOLIENDA				
1	ELEVACOR DE CAPACHOS (1) CAP	3#14-1/2"ø	2	2 HP	3x15
2	TOLVA DE GRUESOS, VALVULA ROTATIVA	2#14-1/2"ø.	0	4 HP	2x15
3	ALIMENTADOR DE FAJA	2#14-1/2"ø	0	4 HP	2x15
4	INYECTOR DE AIRE PARA EL CALENTADOR	3#14-1/2"ø	1	5 HP	3x15
5	BOMBA DE PETRDLEO	3#14-1/2"ø.	0.	5 HP	3x15
6	MOLINO DE CASCADA	3# 4-1/2"ø	22	0 HP	3x125
7	CISPOSITIVC MOLINO	2#14-1/2"ø	0.	4 HP	2x15
8	ALIMENTADOR DE GUSANO (Hacia el molino)	2#14-1/2"ø	0	4 HP	2x15
9	SEPARLCOR DE AIRE	2#14-1/2"ø	0.	4 HP	2x15
10	BAG FILTER (Filtro)	3#12-1/2"ø'	3.	7 HP	3x30
11	VENTILADOR ECTRACTOR DE LAS SECCION MOLIENDA	3# 2-1/2"ø.	22	0 HP	3x150
12	TFANEFORTADOR DE CADENA	3#14-1/2"ø:	1.	3 HP	3x15
13	ALIMENTADCR ALAS TOLVAS DE FINOS (3) C/o 3TM c/u	2#14-1/2"ø.	0.	4 HP	2x15
14	VALVULA ROTATIVA TOLVA	2#14-1/2"ø.	0	4 HP	2x15

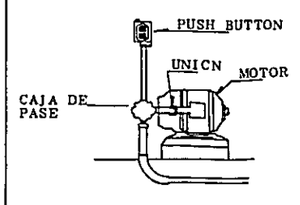
CLAVE	SECCION SEGREGACION				
1	TRANSPORTADCR DE CADENA	3#14-1/2"ø.	2.	2 HP	3x15
2	ALIMENTADOR DE MESA (Table feeder)	3#14-1/2"ø:	0	75 HP	3x15
3	ALIMENTADOR DE CUSANO (Haca el horno de precalentomiento	2#14-1/2"ø:	0.	2 HP	2x15
4	RORNO DE PRECALENTAIENTO (de tecno fluia zaao	3#10-1/2"ø:	5.	5 HP	3x40
5	HOFNO REACTOR GEGREGACICN (Rotarq kiln)	3#14-1/2"ø:	2.	2 HP	3x15
6	ENFRIADCR DE GUSANO	3#14-1/2"ø.	1	5 HP	3x15
7	BOMBA DE PETROLEO	2#14-1/2"ø'	0.	2 HP	2x15
8	MOLINC VIBRATCRIO PARA EL COKE	3#14-1/2"ø	1	5 HP	3x15
9	SARANDA VIBRATORIA	3#14-1/2"ø'	0	75 HP	3x15
10	VENTILADOR EXTRACTCR	3#16-11/2"ø.	11.	0 HP	3x130
11	CONTROL DE BIRO DE PRECALENTAMIENTO	3#14-1/2"ø	1.	5 HP	3x15
12	ENFRIADO DE SASES (Coater)	3#14-1/2"ø	1.	5 HP	3x15
13	LAVADOR DE GASES	3#14-1/2"ø	1	9 HP	3x15
14	ALIMENTADOR DE MESA	2#14-1/2"ø.	0.	4 HP	2x15
15	ALIMENTADOR DE MESA	2#14-1/2"ø	0	2 HP	2x15
16	COMPRESOR DE AIRE	3#10-1/2"ø:	5	5 HP	3x30
17	AJITADOR	3#14-1/2"ø:	1	5 HP	3x15



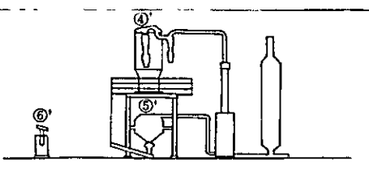
VISTA FRONTRAL



MD = 97 KW



DETALLE TIPICO



VISTA LATERAL

INGENIERO MECANICO ELECTRICISTA — JOSE LUIS MENDOZA CARRASCO CIP 7583

REVISIONES

REFERENCIA: DISTRIBUCION EN PLANTA FUERZA

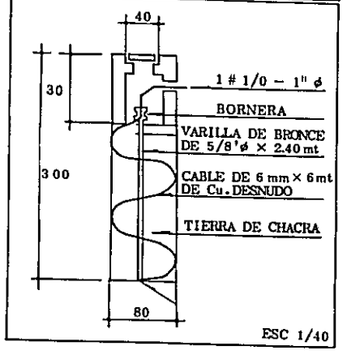
ESCALA: 1/50 | FECHA: MARZO '84 | DIBUJO: J. A.

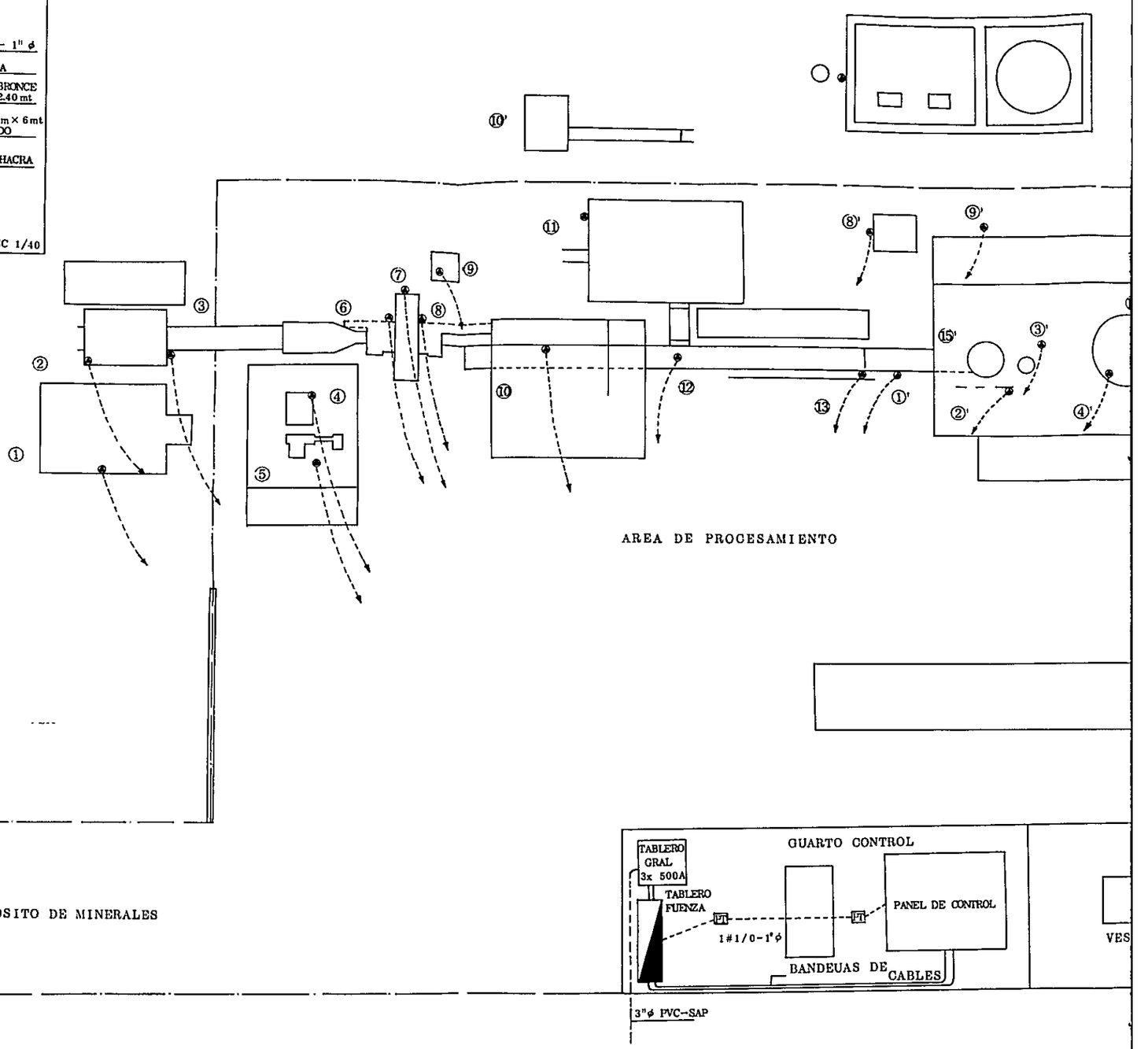
PROYECTO: PLANTA PILOTO DE SEGREGACION

PROPIEDAD: INGEMMET — DIRECCION GENERAL DE METALURGIA

IE-1

POZO DE TIERRA





ESPECIFICACIONES

BARRA DE TIERRA

ALIMENTADOR — TUBERIA PVC-SAP DIAM PULG — CONDUCTORES TWH – 3WG

TABLERO CIRCUITO RECEPTORES

INTERRUPTOR CAPACIDAD AMP GENERAL (de cuchillo) FUSIBLE AMP

TENSION 220 v 60 Hz

Nº DE CIRCUITO "C"

INTERRUPTOR CAPACIDAD AMP TERMOMAGNETICO NO FUSE

CONDUCTOR TW CALIBRE AWG TUBERIA CONDUIT GALV DIAM PULG

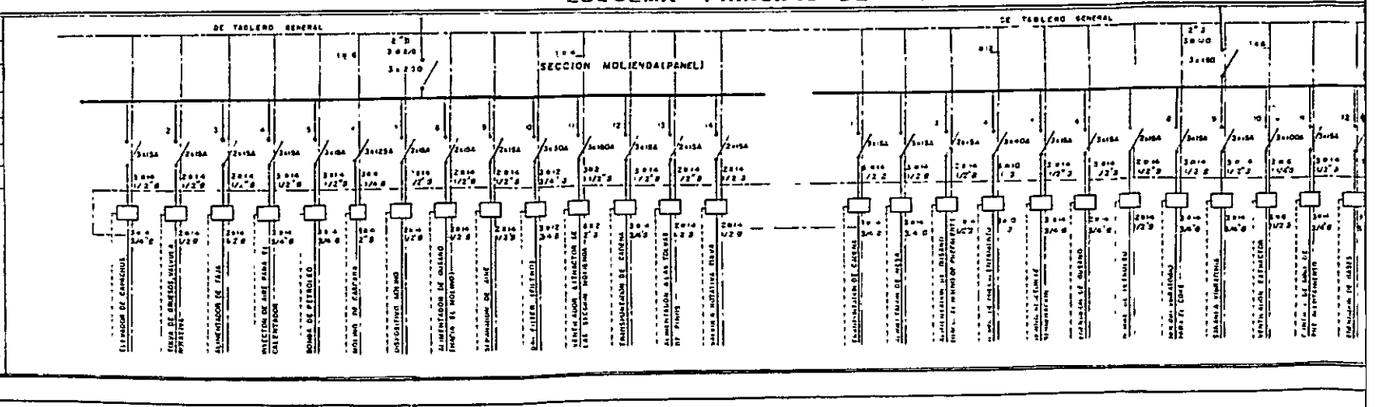
CONTROLES

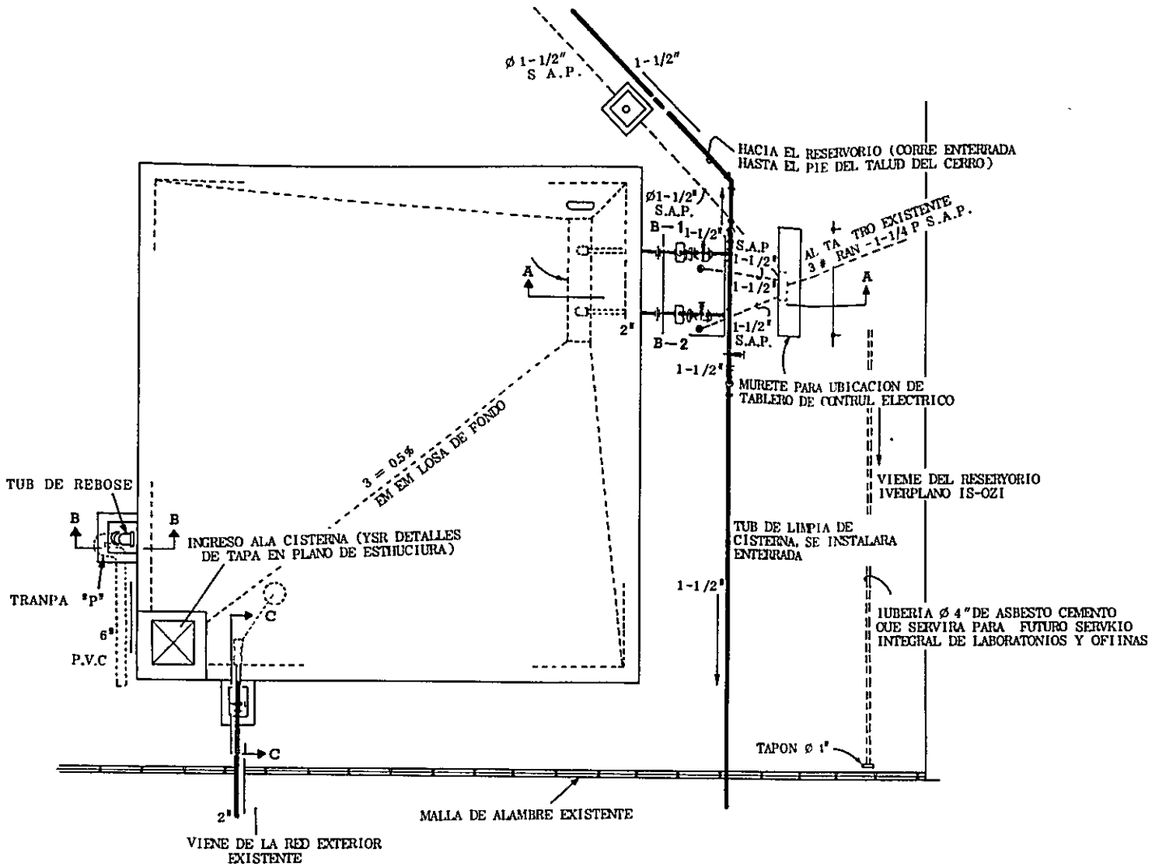
FUERZA

TIERRA

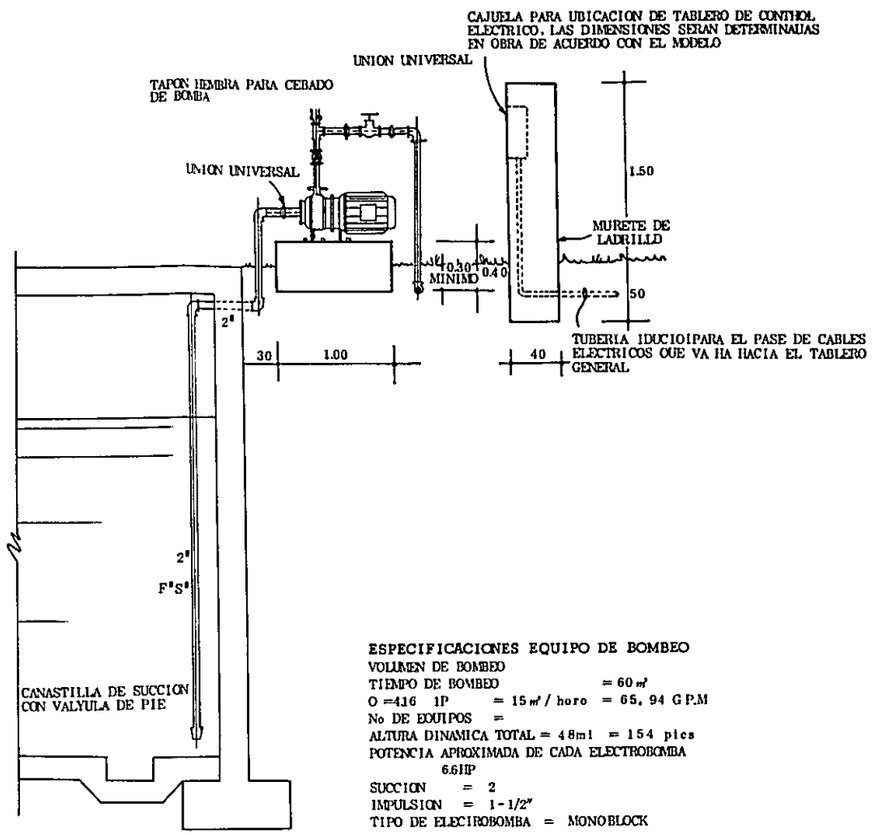
GABINETE METALICO

ESQUEMA PRINCIPIO DE TABLERO





PLANTA CISTERNA
ESC 1:50

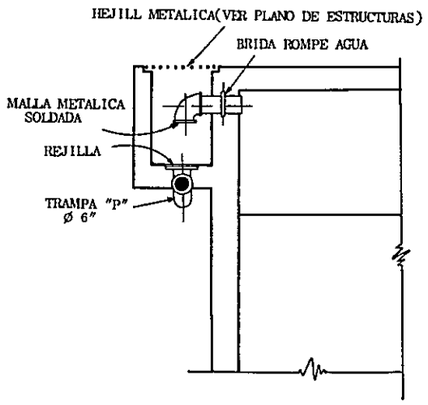


CORTE A - A
ESC 1/25

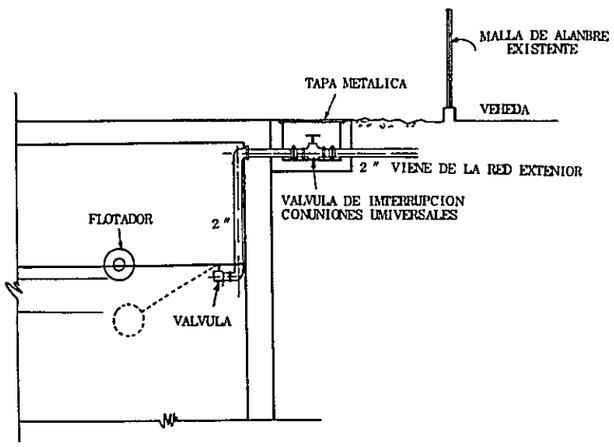
ESPECIFICACIONES EQUIPO DE BOMBEO

VOLUMEN DE BOMBEO
TIEMPO DE BOMBEO = 60 m³
O =4.16 lP = 15 m³/ horo = 65, 94 G P.M
No DE EOUIPOS =
ALTURA DINAMICA TOTAL = 48m1 = 154 pies
POTENCIA APROXIMADA DE CADA ELECTROBOMBA
6.6HP
SUCCION = 2
IMPULSION = 1-1/2"
TIPO DE ELECIROBOMBA = MONOBLOCK

NOTA:
EL EOUIPADOR, DE ACUERDO ALA MARCA DE LOS EOUIPOS PROPORCIONARA LOS DETALLES DEI TABIERO Y CABLEADO, DEJANDOSE EN LA OBRA CIVIL INSTALADO LOS DUCTOS Y LAS CAJAS DE PASE



SISTEMA DE REBOSE DE CISTERNA
CORTE B-B
ESC 1/25



DETALLE DE VALVULAS DE CONTROL DE CISTERNA.
CORTE C-C
ESC 1/25

CLARO INGENIEROS ARQUITECTOS SRL	PROPIETARIO: INGEMMET		
PLANO: CISTERNA	OBRA: PLANTA U.I. CISTERNA Y RESERVORIO		LAMINA: IS-03
	PROFESIONAL: ING. PEDRO VENTO PATIÑO (ING. SANITARIO) C.I.P. 19975		
ESPECIALIDAD: INSTALACIONES SANITARIAS	DIBUJO: V. C. E	FECHA: NOV 1983	ESCALA: 1/50, 1/25