資料9 概略設計図

概略設計図面リストを下表に示す。

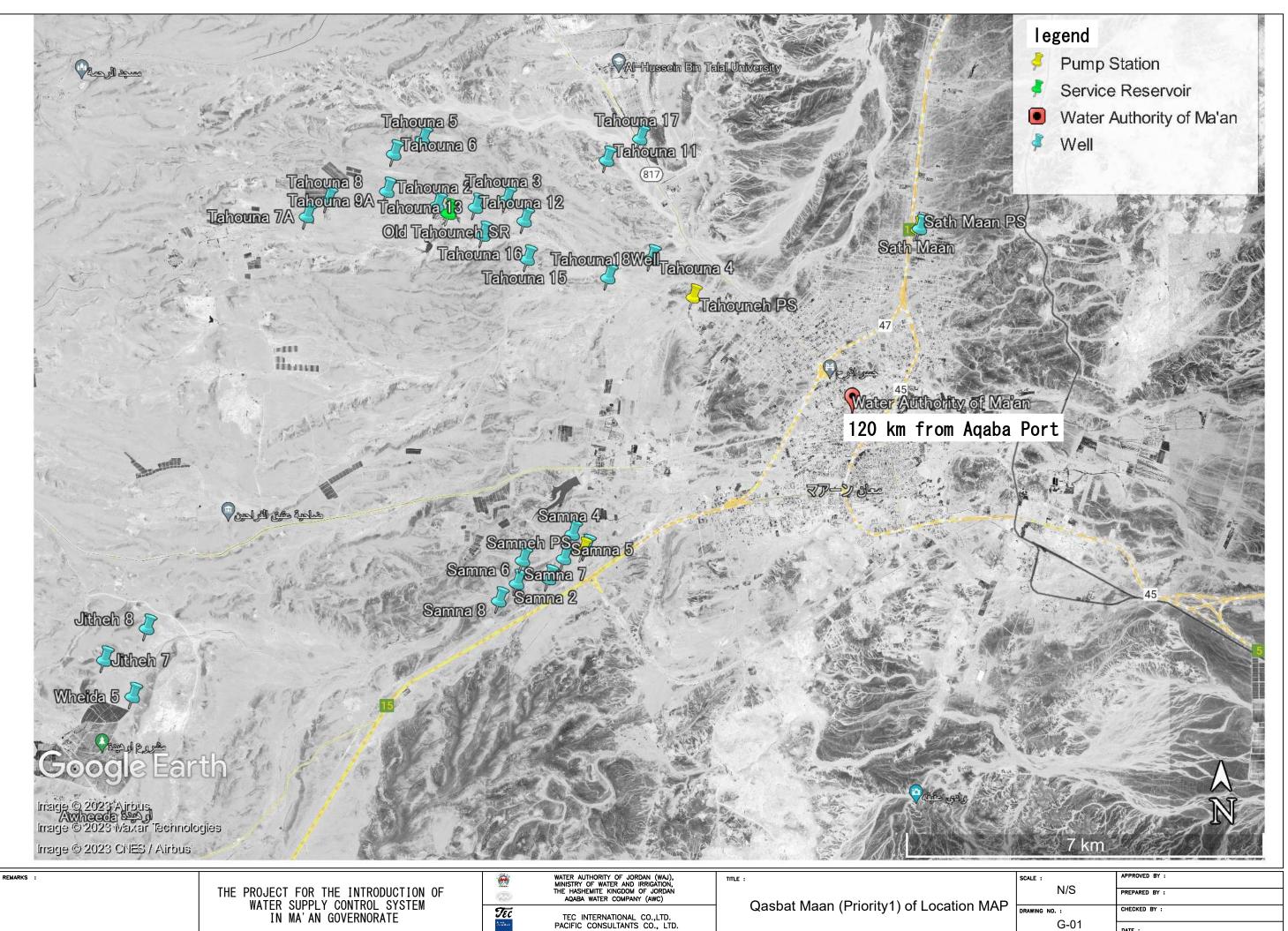
概略設計	図面リ	スト
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図面番号	図面タイトル
G-01	Qasbat Maan (Priority1) of Location MAP
I-01	SCADA Network System Diagram
E-01	Power distribution panel for Ma'an SCADA room
E-02	Power distribution panel large type for PS
E-03	Power distribution panel small type for PS
E-04	Distribution pump panel (SS type) for PS
E-05	PLC Panel (main type) for PS
G-02	P1-1-PS1 Samneh PS of General Layout Plan
M-01	P1-1-PS1 Samneh PS of Pump room
G-03	P1-1-PS2 Tahouneh PS of General Layout Plan
M-02	P1-1-PS2 Tahouneh PS of Pump room
G-04A	P1-1-PS3 Sath Maan PS of General Layout Plan
M-03	P1-1-PS3 Sath Maan PS of Pump room
E-06	Power distribution panel for SR
E-07	Valve control panel for SR
E-08	PLC Panel for SR
G-04B	P1-1-R4 Old Tahouneh SR of Location Map
G-05	P1-1-R4 Old Tahouneh SR of General Layout Plan
E-09	Power distribution panel for Well
E-10	Well pump control panel (SS type) for Well
E-11	PLC Panel for Well
G-06	P1-1-W1 Tahouna 2 Well of General Layout Plan
M-04	P1-1-W1 Tahouna 2 Well of Piping arrangement
G-07	P1-1-W2 Tahouna 3 Well of General Layout Plan
M-05	P1-1-W2 Tahouna 3 Well of Piping arrangement
G-08	P1-1-W3 Tahouna 4 Well of General Layout Plan
M-06	P1-1-W3 Tahouna 4 Well of Piping arrangement
G-09	P1-1-W4 Tahouna 5 Well of General Layout Plan
M-07	P1-1-W4 Tahouna 5 Well of Piping arrangement
G-10	P1-1-W5 Tahouna 6 Well of General Layout Plan
M-08	P1-1-W5 Tahouna 6 Well of Piping arrangement
G-11	P1-1-W6 Tahouna 7 A Well of General Layout Plan
M-09	P1-1-W6 Tahouna 7 A Well of Piping arrangement
G-12	P1-1-W7 Tahouna 8 Well of General Layout Plan
M-10	P1-1-W7 Tahouna 8 Well of Piping arrangement
G-13	P1-1-W8 Tahouna 9 A Well of General Layout Plan
M-11	P1-1-W8 Tahouna 9 A Well of Piping arrangement
G-14	P1-1-W9 Tahouna 10 Well of General Layout Plan
M-12	P1-1-W9 Tahouna 10 Well of Piping arrangement
G-15	P1-1-W11 Tahouna 12 Well of General Layout Plan
M-13	P1-1-W11 Tahouna 12 Well of Piping arrangement
G-16	P1-1-W12 Tahouna 13 Well of General Layout Plan
M-14	P1-1-W12 Tahouna 13 Well of Piping arrangement
G-17	P1-1-W12 Tahouna 15 Well of General Layout Plan
M-15	P1-1-W13 Tahouna 15 Well of Piping arrangement
G-18	P1-1-W14 Tahouna 16 Well of General Layout Plan
M-16	P1-1-W14 Tahouna 16 Well of Piping arrangement
111 10	

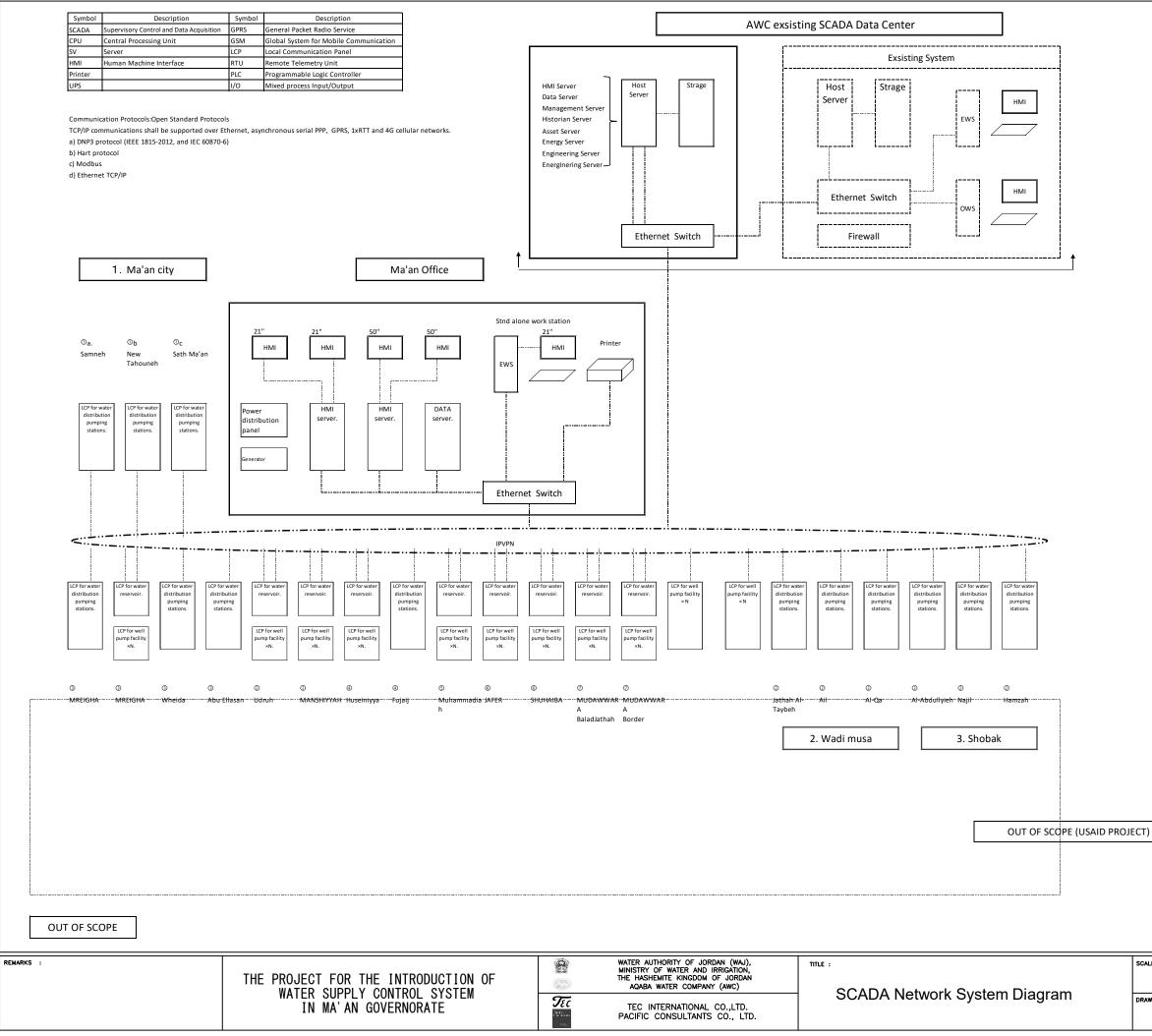
マアン県における給水制御システム導入計画 準備調査報告書

図面番号	図面タイトル
G-19	P1-1-W15 Tahouna 17 Well of General Layout Plan
M-17	P1-1-W15 Tahouna 17 Well of Piping arrangement
M-18	P1-1-W16 Tahouna 18 Well of Piping arrangement
G-20	P1-1-W17 Wheida 5 Well of General Layout Plan
M-19	P1-1-W17 Wheida 5 Well of Piping arrangement
G-21	P1-1-W18 Jitheh 7 Well of General Layout Plan
M-20	P1-1-W18 Jitheh 7 Well of Piping arrangement
G-22	P1-1-W19 Jitheh 8 Well of General Layout Plan
M-21	P1-1-W19 Jitheh 8 Well of Piping arrangement
M-22	P1-1-W20 Sath Maan Well of Piping arrangement
G-23	P1-1-W21 Samna 1 Well of General Layout Plan
M-23	P1-1-W21 Samna 1 Well of Piping arrangement
G-24	P1-1-W22 Samna 2 Well of General Layout Plan
M-24	P1-1-W22 Samna 2 Well of Piping arrangement
G-25	P1-1-W23 Samna 4 Well of General Layout Plan
M-25	P1-1-W23 Samna 4 Well of Piping arrangement
G-26	P1-1-W25 Samna 6 Well of General Layout Plan
M-26	P1-1-W25 Samna 6 Well of Piping arrangement
G-27	P1-1-W26 Samna 7 Well of General Layout Plan
M-27	P1-1-W26 Samna 7 Well of Piping arrangement
G-28	P1-1-W27 Samna 8 Well of General Layout Plan
M-28	P1-1-W27 Samna 8 Well of Piping arrangement

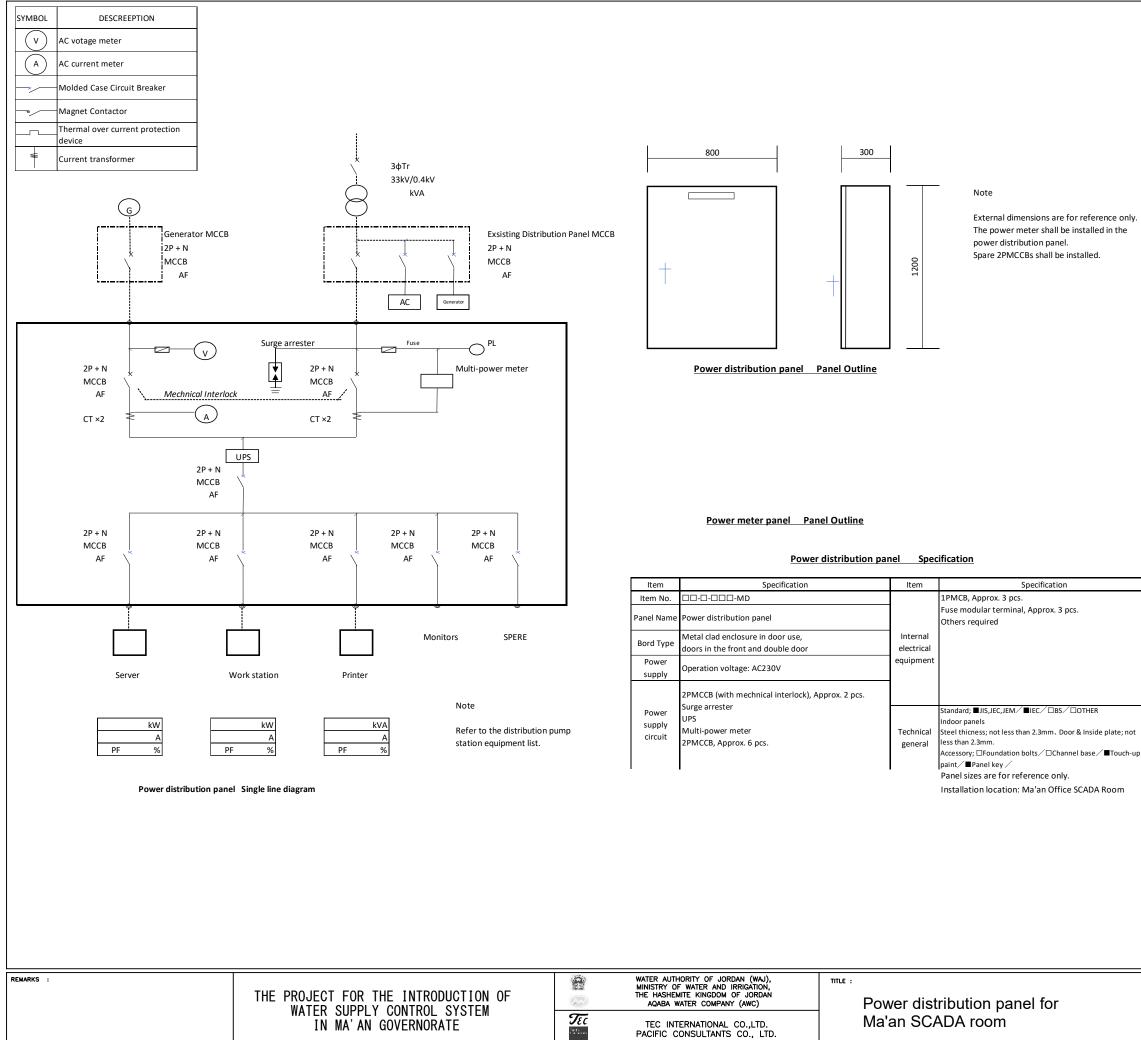
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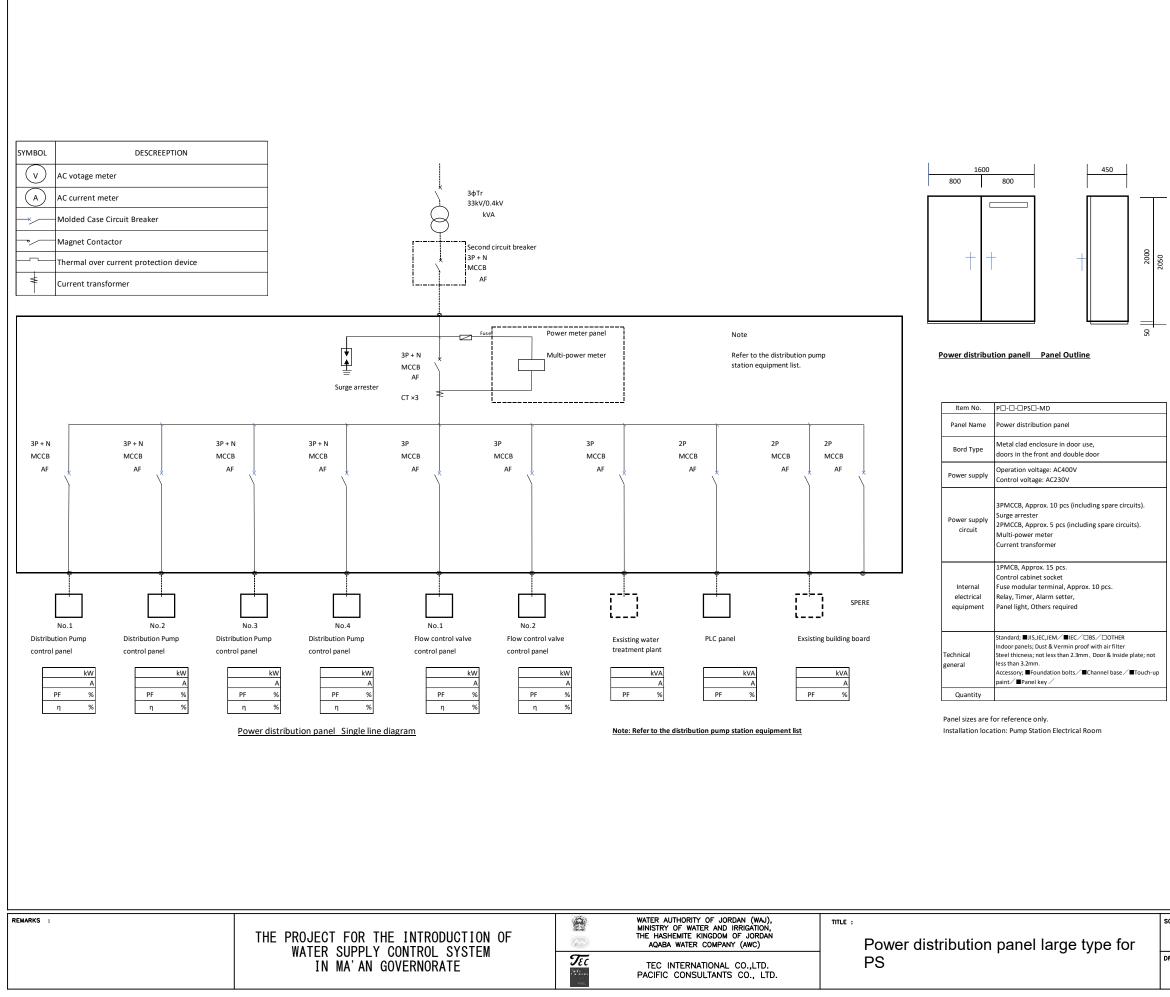
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	G-01	DATE :



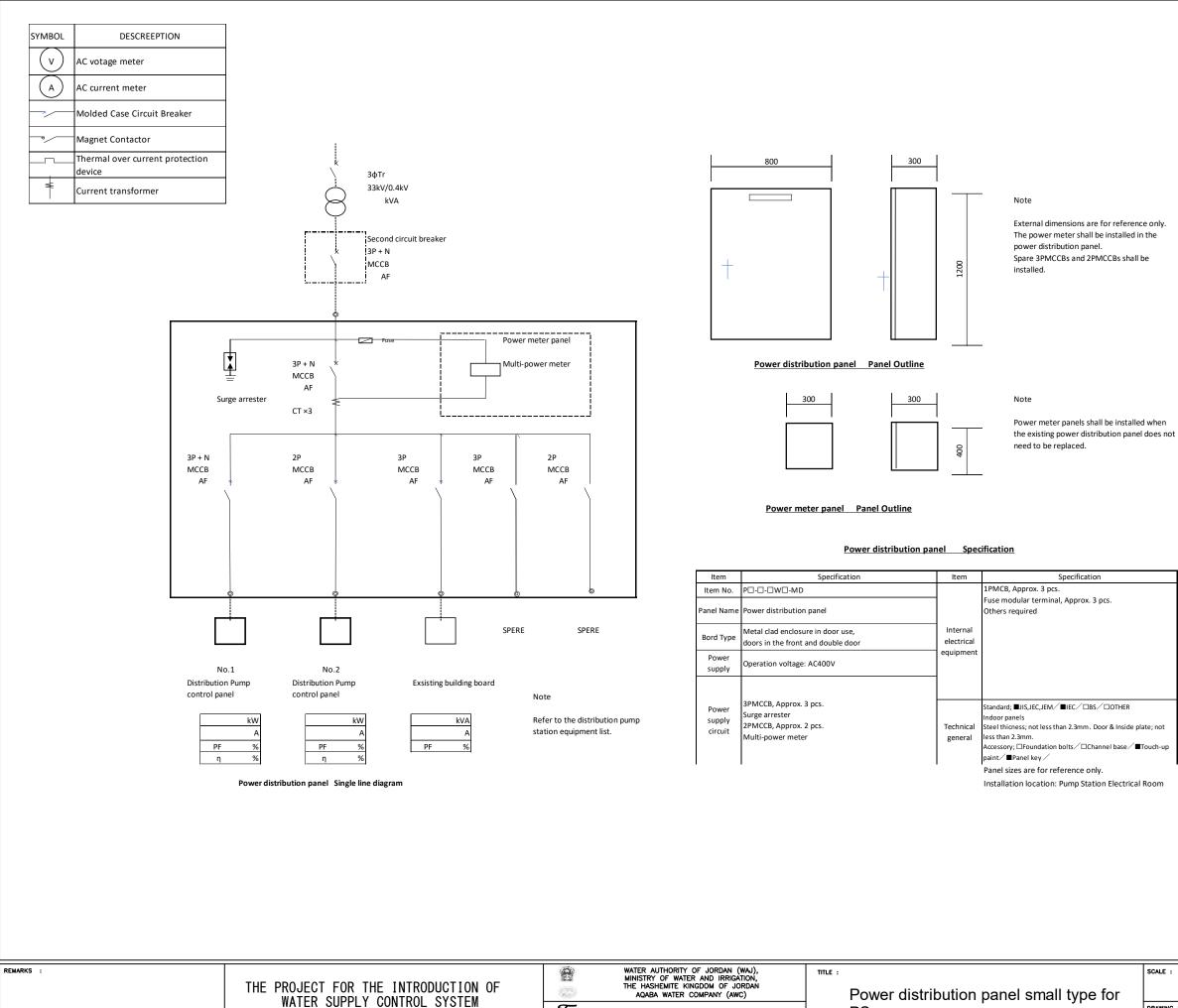
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	DRAWING NO. :	CHECKED BY :
	E-02	DATE :



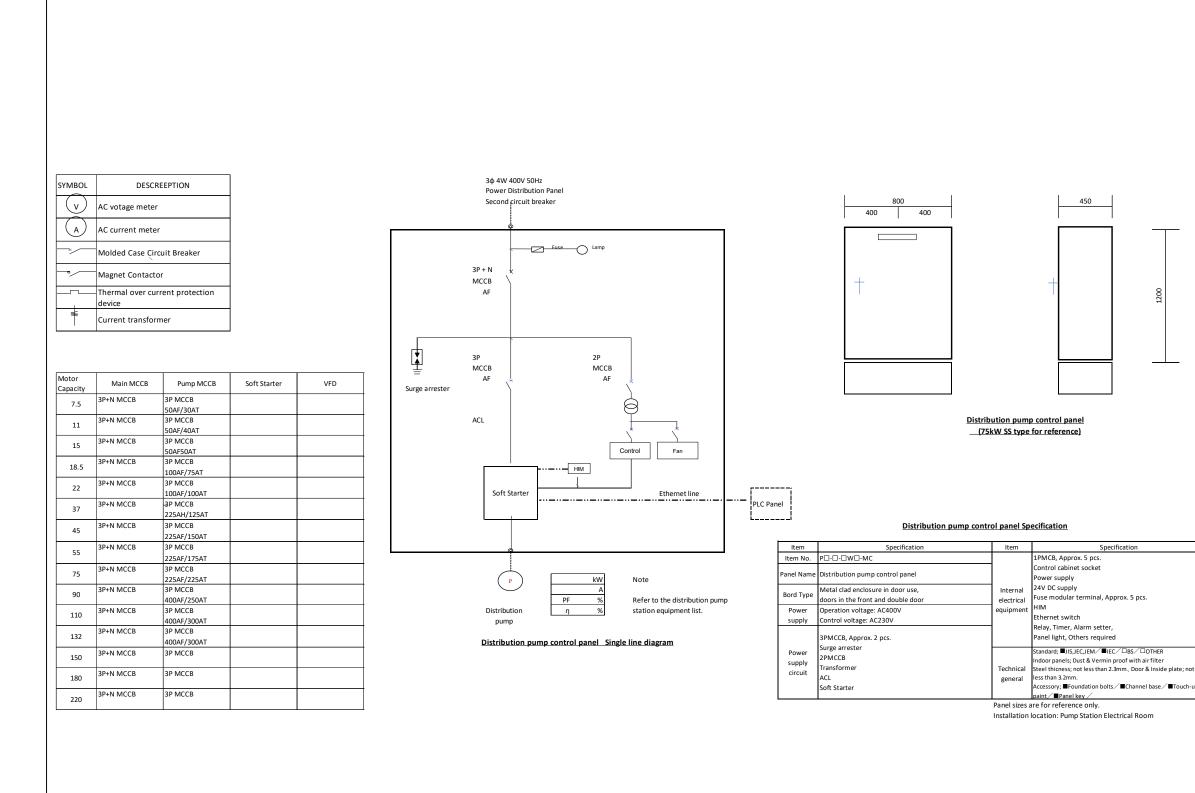
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WATER	SUPPI	Y CON	VTR0I	SYS
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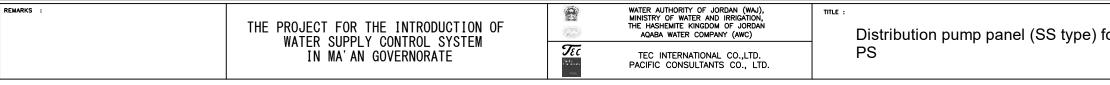
AQABA WATER COMPANY (AWC) TEC INTERNATIONAL CO.,LTD. PACIFIC CONSULTANTS CO., LTD.

TEC

Power distribution panel small type PS

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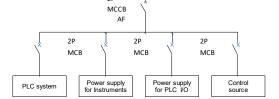




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IP-VPN Tele-communication network PANEL NAME Symbols ain Distribution Board MD otor control center for distribution pump Note Refer to "Remote New addition -IT PLC" drawings. Renewal of existing equipment PLC Panel ternet [⊤] transmission equipment Remote PLC panels shall be Magnetic Flow Meter Transmitter -Remote -PC -Remote E. PLC PLC used where Well is located Pressure Transmitter 1.1 Reservoir Level Transmitter for reservoir for Well within the pumping station VB Vibration modul board \otimes -VB Symbols COMMUNICATION . P ----Control waire cable -MD -MC1 -MC2 -MC3 -MC4 ----Analog line with HART _..._ thernet line Reservoir IP/VPN Tele-communication line Tank - (P) 🖂 -FT \mathbb{P} To distribution for district \bowtie Distribution Pump station system diagram 1ф 2W 230V 50Hz Power Distribution Panel Second circuit breaker 1 200 2P MCCB AF UPS AC230V/230V 1000VA Surge arrester 2P



PLC panel Single line diagram

1000	300	
+ +	+	1400

PLC Panel Outline

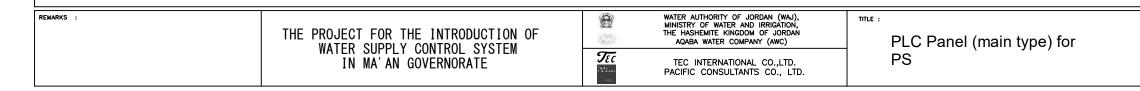
Electrical equipments signal list									
Symbol	Equipment name	Q'ty D		Digital input/output signal Analog input/output signal			Digital input/output signal		al
			DI	Receiving Panel MCCB on	AI	Power usage	Kw/h		
			DI	Receiving Panel MCCB fault	AI	Receiving voltage	V		
MD	Power Distribution Panel	1	DI	Electrical equipment fault	AI	Receiving current	А		
-IVID	Power Distribution Panel	1			AI	Frequency	Hz		
					AI	Power factor	PF		
		4	DI	Distribution Pump Remote	AI	Power usage	Kw/h		
			DI	Distribution Pump Start read	AI	Pump voltage	V		
			DI	Distribution Pump Run	AI	Pump current	A		
			DI	Distribution Pump Fault	AI	pump frequency	Hz		
			DI	VFD Fault	AI	pump power factor	PF		
-MC1	Duran Control Donal		DI	Motor templature high	AI	Pump speed	min-1		
1~4	Pump Control Panel		DI	Vibration Abnormal					
			DI	Reserver level Low					
			DO	Start	AO	Pump rotation set	min-1		
			DO	Stop					

Measure Instrument equipments signal list					
Symbol	ymbol Equipment name Q'ty Analog input signal				
LT	Ultrasonic Level Measurements	1	Reservoir water level	m	
PT	Pressure monitoring device	1	Distribution pump discherge pressure	m	
FT	Electromagnetic Flow Meters	1	Distribution pump discherge flow	m3/Hr	
FT	Electromagnetic Flow Meters			m3/Hr	
FT	Electromagnetic Flow Meters			m3/Hr	
FT	Electromagnetic Flow Meters			m3/Hr	
FT	Electromagnetic Flow Meters			m3/Hr	

PLC Panel Specification

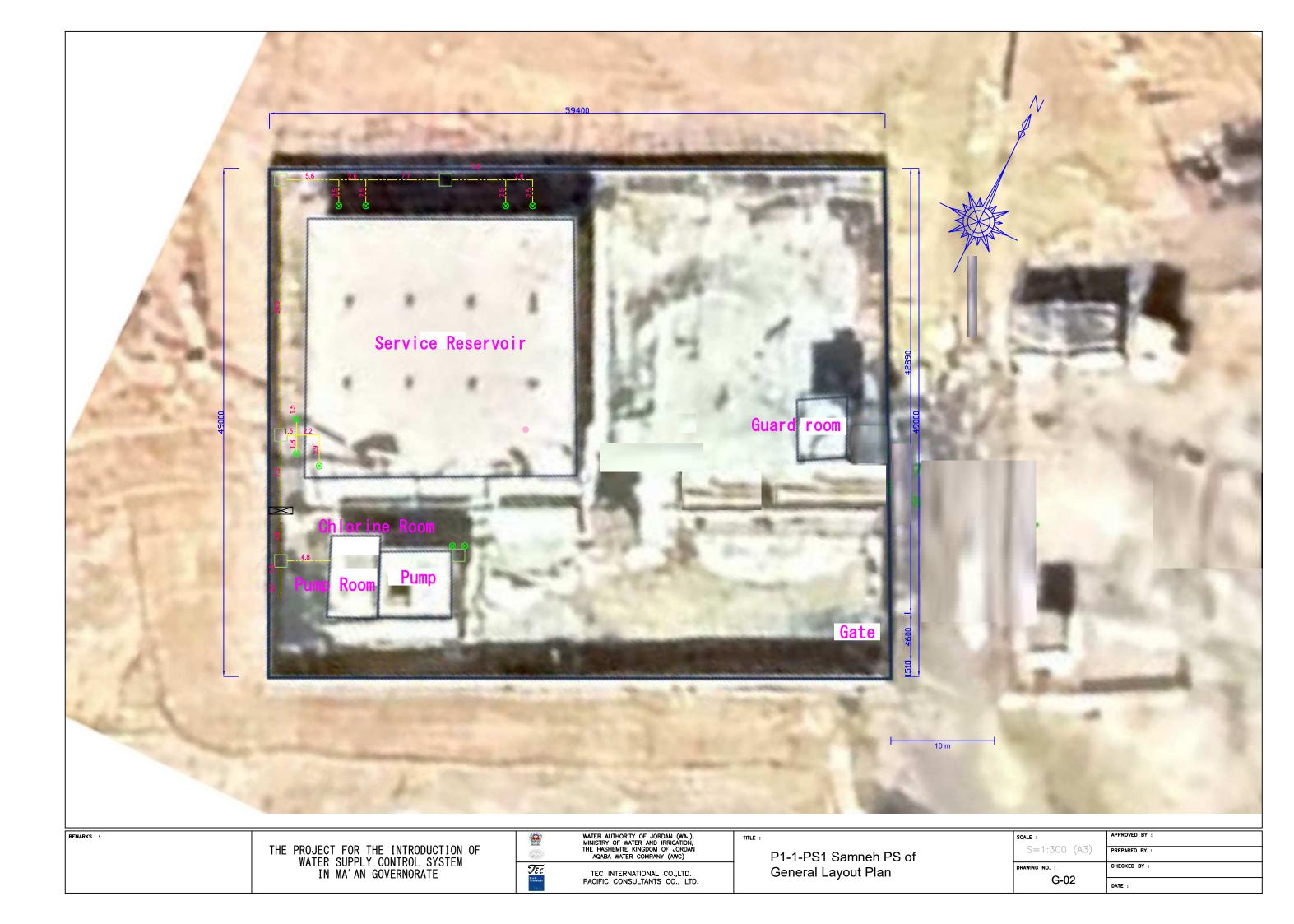
Item	Specification	Item	Specification
Item No.	PD-D-DPSD-RPLC		1PMCB, Approx. 5 pcs.
Panel Name	PLC Panel		Surge arrester for instruments Control cabinet socket Power supply
Bord Type	Metal clad enclosure in door use, doors in the front and double door	Internal	24V DC supply Fuse modular terminal, Approx. 5 pcs.
Power supply	Operation voltage: AC400V Control voltage: AC230V	electrical equipment	Panel view graphic terminal Ethernet switch PLC system (including DIO/AIO)
	2014/00 4-14-14-2		Analog signal-repeater power supply IT communication device Relay, Timer, Alarm setter, FAN (cooling). Panel light, Others required
Power supply circuit	2PMCCB, Approx. 2 pcs. Surge arrester UPS 1000VA Input AC230V Output AC230V	Technical general	Standard; #JIS,JEC,JEM/#IEC/@BS/@OT Indoor panels; Dust & Vermin proof with air f Steel thicness; not less than 2.3mm. Door & I less than 3.2mm. Accessory; #Foundation bolts/#Channel b paint/#Panel key/

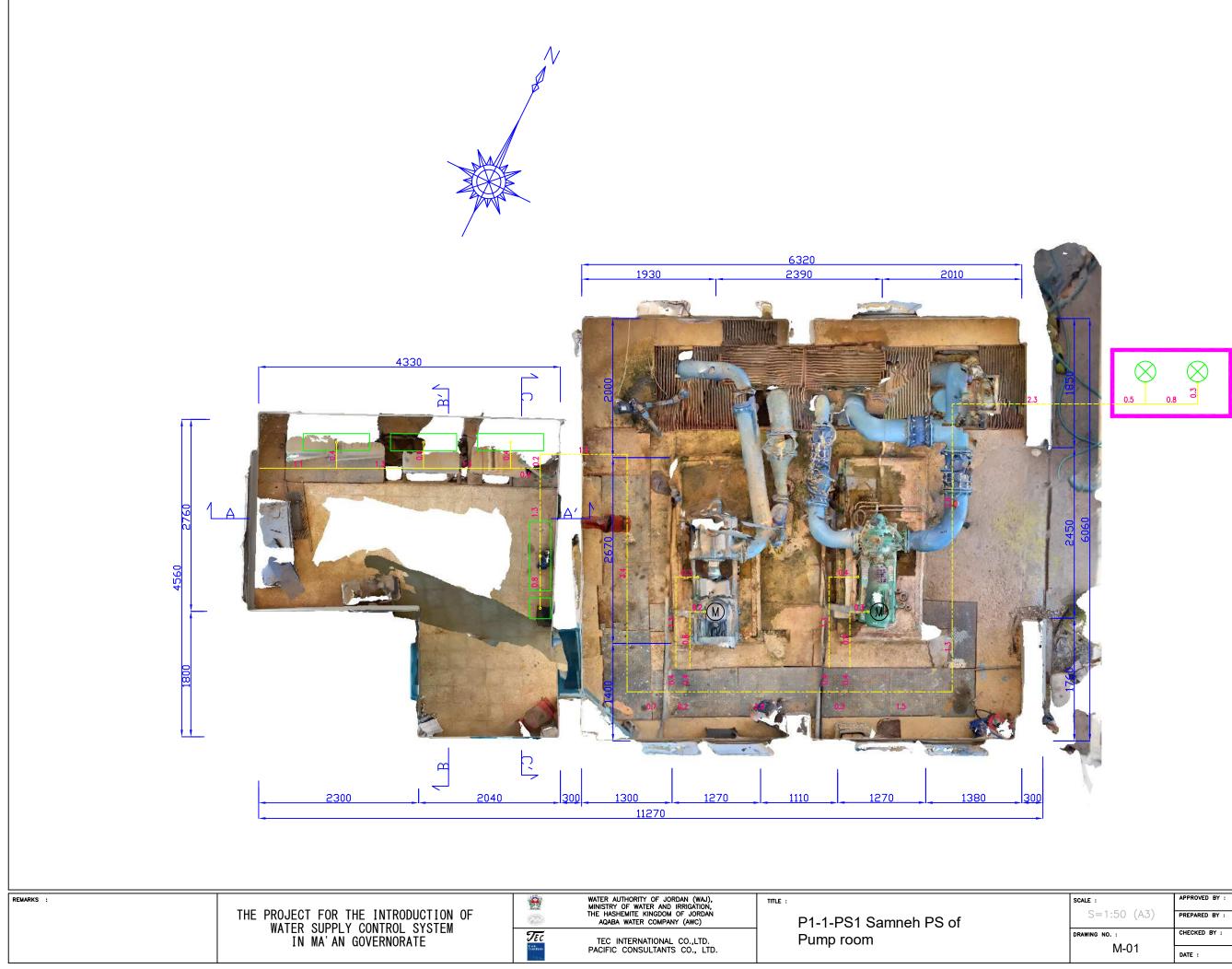
Panel sizes are for reference only. Installation location: Pump Station Electrical Room





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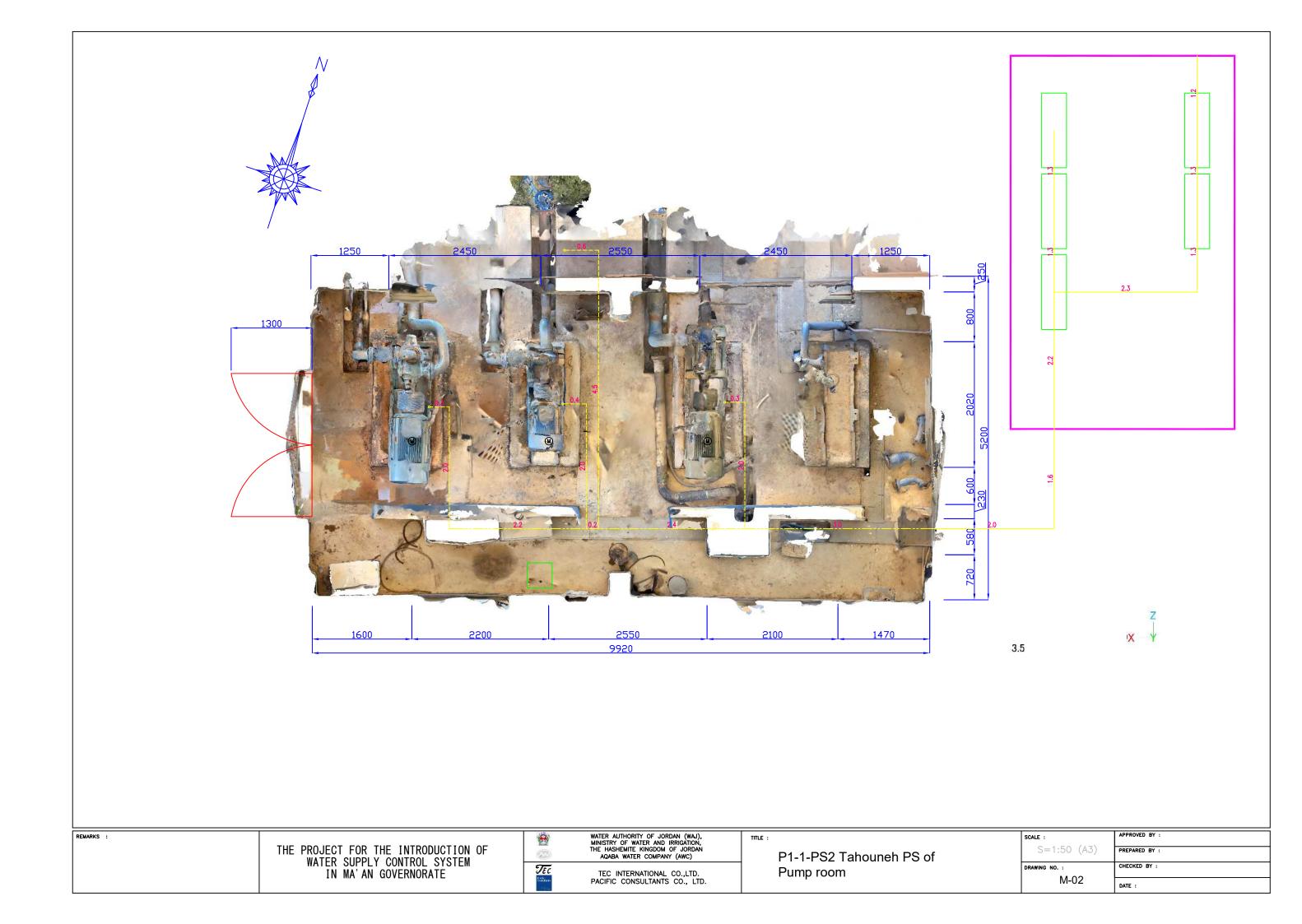


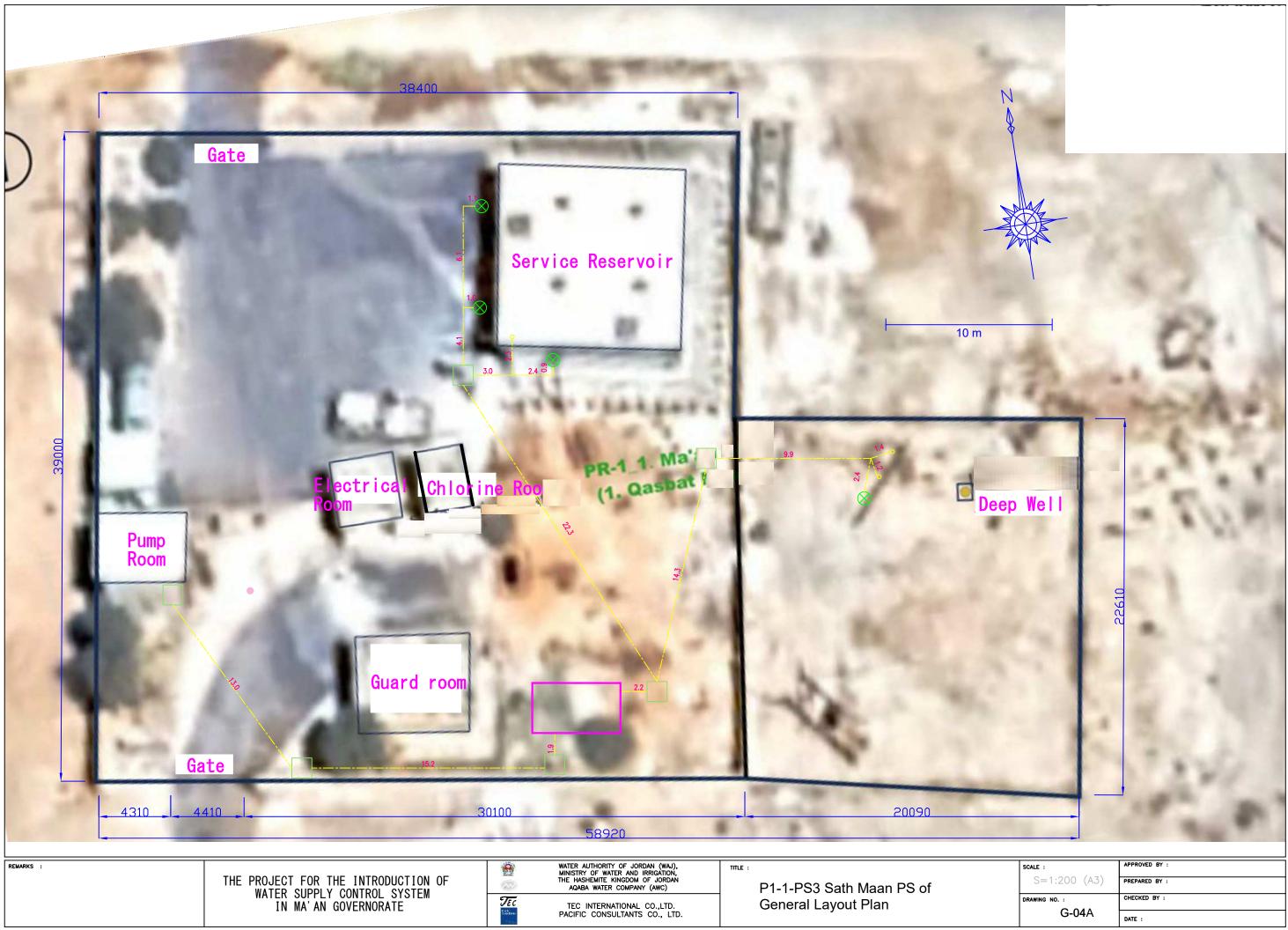
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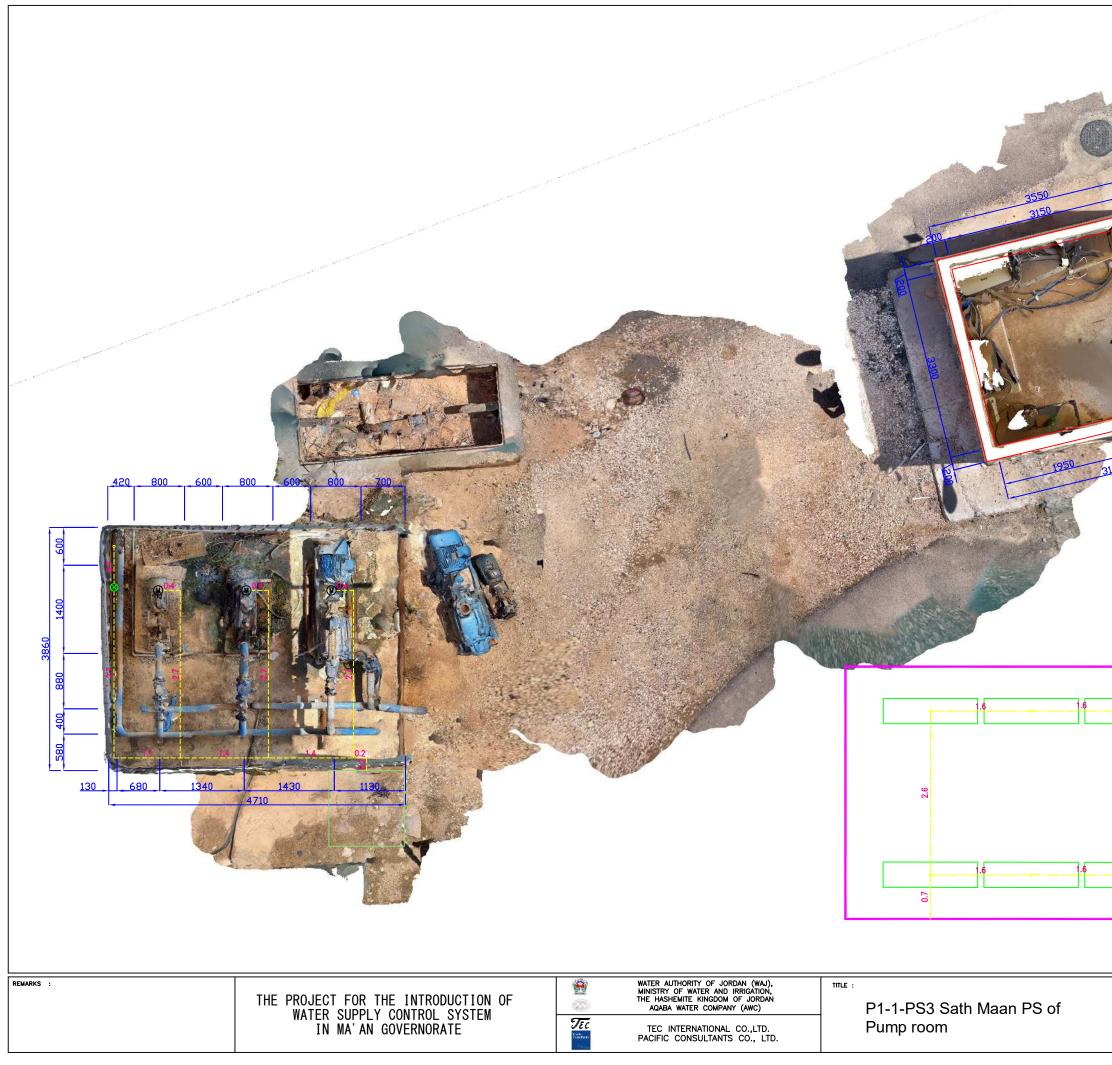
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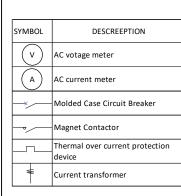




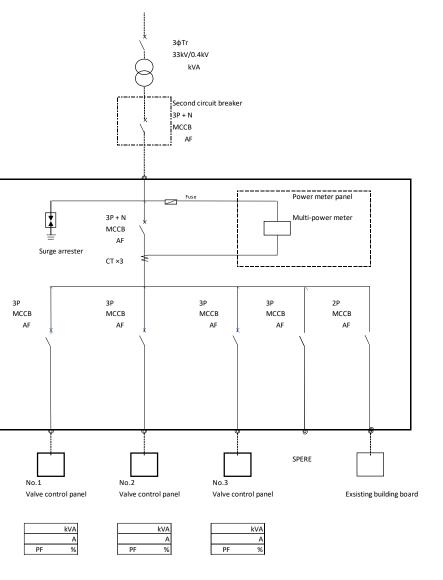
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G-04A	DATE :



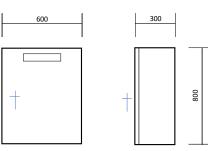
		N A A A A A A A A A A A A A A A A A A A
\	5 2.5	APPROVED BY :
	S=1:60 (A3) drawing no. : M-03	PREPARED BY : CHECKED BY : DATE :



Motor Capacity	Main MCCB	Valve ELCB
0.75	3P MCCB	3P ELCB
0.75	50AF/30AT	50AF/30AT
1.5	3P MCCB	3P ELCB
1.5	50AF/30AT	50AF/30AT
3.7	3P MCCB	3P ELCB
5.7	50AF/30AT	50AF/30AT
5.5	3P MCCB	3P ELCB
5.5	50AF/30AT	50AF/30AT
7.5	3P MCCB	3P ELCB
7.5	50AF/30AT	50AF/30AT
11	3P MCCB	3P ELCB
11	50AF/40AT	50AF/40AT
15	3P MCCB	3P ELCB
15	50AF50AT	50AF50AT



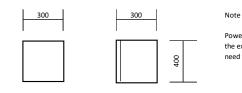
Power distribution panel Single line diagram



External dimensions are for reference only. The power meter shall be installed in the power distribution panel. Spare 3PMCCBs shall be installed.

Note

Power distribution panel Panel Outline



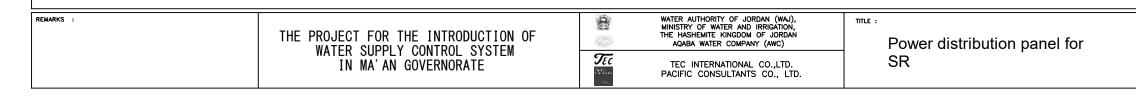
Power meter panels shall be installed when the existing power distribution panel does not need to be replaced.

Power meter panel Panel Outline

Power distribution panel Specification

Item	Specification	Item	Specification
Item No.	P□-□-R□-MD		1PMCB, Approx. 3 pcs.
Panel Name	Power distribution panel		Fuse modular terminal, Approx. 3 pcs. Others required
Bord Type	Metal clad enclosure in door use, doors in the front and double door	Internal electrical	
Power supply	Operation voltage: AC400V	equipment	
Power	3PMCCB, Approx. 4 pcs. Surge arrester 2PMCCB, Approx. 1 pcs. Multi-power meter	Technical general	Standard; EUIS,JEC,JEM, ●IEC/ □BS/ □OTHE Indoor panels Steel thicness; not less than 2.3mm, Door & Insi less than 2.3mm. Accessory; □Foundation bolts/ □Channel base paint/ ■ Panel key /

Installation location: Pump Station Electrical Room

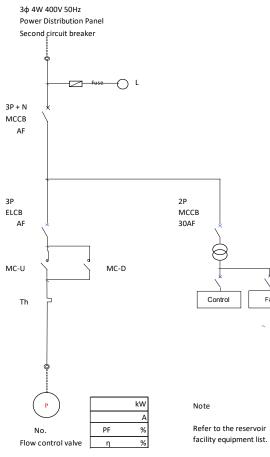


HER nside plate; not ase∕∎Touch-up

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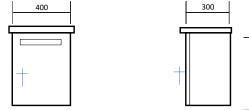
SYMBOL	DESCREEPTION
(\mathbf{v})	AC votage meter
(\mathbf{A})	AC current meter
~	Molded Case Circuit Breaker
Magnet Contactor	
	Thermal over current protection device
*	Current transformer

Motor	Main MCCB	Valve FLCB
Capacity	Mail NICCB	Valve ELCB
0.75	3P MCCB	3P ELCB
0.75	50AF/30AT	50AF/30AT
1.5	3P MCCB	3P ELCB
1.5	50AF/30AT	50AF/30AT
3.7	3P MCCB	3P ELCB
3.7	50AF/30AT	50AF/30AT
5.5	3P MCCB	3P ELCB
5.5	50AF/30AT	50AF/30AT
7.5	3P MCCB	3P ELCB
7.5	50AF/30AT	50AF/30AT
11	3P MCCB	3P ELCB
11	50AF/40AT	50AF/40AT
15	3P MCCB	-3P ELCB
15	50AF50AT	50AF50AT



Fan

Valve control panel Single line diagram

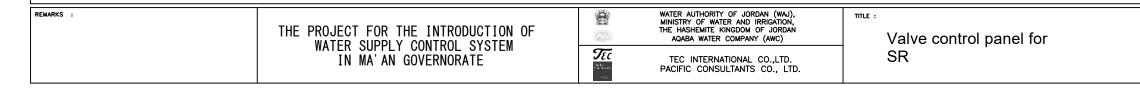


Valve Control Panel Panel Outline

Valve control panel Specification

Item	Specification	Item	Specification
ltem No.	P□-□-R□-VP		1PMCB, Approx. 5 pcs.
Panel Name	Valve control panel		Control cabinet socket Power supply Fuse modular terminal, Approx. 5 pcs.
Bord Type Power supply	Metal clad enclosure in door use, doors in the front and double door	Internal electrical	Fuse modular terminal, Approx. 5 pcs. Relay, Timer, Others required
	Operation voltage: AC400V	equipment	
	3PMCCB, Approx. 2 pcs.		
Power supply circuit	Surge arrester 2PMCCB Transformer Magnet contactor, Approx. 2 pcs. Thermal over current protection device	Technical general	Standard; IIIS,JEC,JEM / IIEC / IBS / OTHER Indoor panels; Steel thicness; not less than 2.3mm. Door & Inside p less than 3.2mm. Accessory; IFoundation bolts / Channel base / I paint / IIP anel key /
		Panel sizes a	are for reference only.

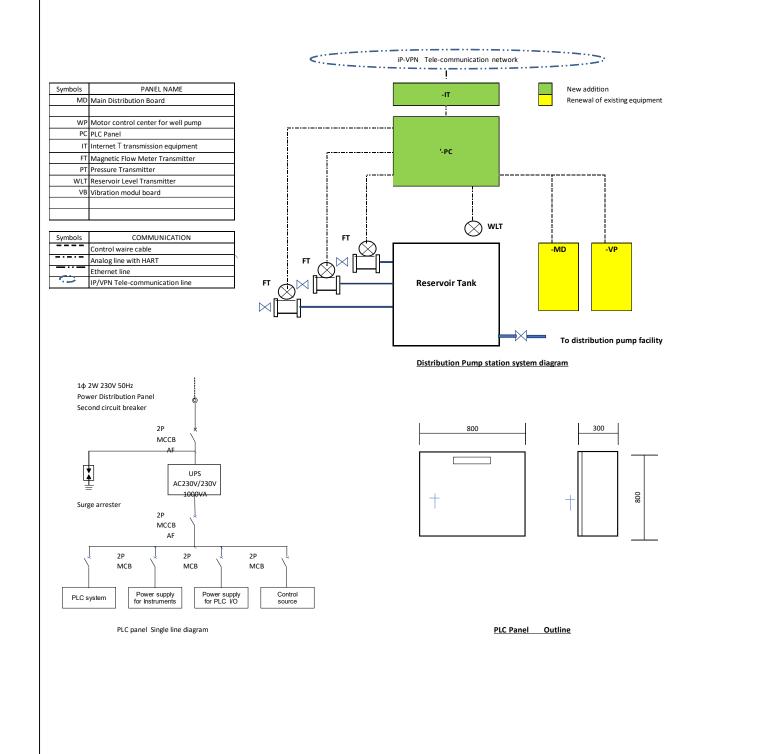
Installation location: Near wall of outdoor reservoir tank



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olts∕∎Channel base∕∎Touch-up

in 2.3mm、Door & Inside plate; not

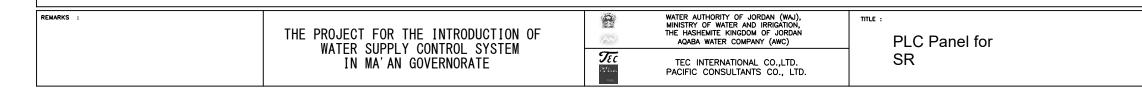


Electrical equipments signal list							
Symbol	Equipment name	Q'ty	Q'ty Digital input/output signal			Analog input/out	
			DI	Receiving Panel MCCB on	AI	Power usage	
			DI	Receiving Panel MCCB fault	AI	Receiving volt	
			DI	Electrical equipment fault	AI	Receiving curr	
-MD	Power Distribution Panel	1			AI	Frequency	
					AI	Power factor	
	Valve Control Panel		DI	Well Pump Remote	AI	Power usage	
			DI	Well Pump Start ready	AI	Pump voltage	
		1	DI	Well Pump Run	AI	Pump current	
			DI	Well Pump Fault	AI	pump frequer	
			DI	VFD Fault	AI	pump power f	
			DI	Well water level Low	AI	Pump speed	
-IVIC			DI	MCCB status			
			DI	MCCB trip			
			DO	Start	AO	Pump rotation s	
			DO	Stop			

Measure Instrument equipments signal list					
Symbol	Equipment name	Q'ty	Analog input signal		
LT	Ultrasonic Level Measurements	1	Reservoir water level		
FT	Electromagnetic Flow Meters	1	Rservoir inline flow		
FT	Electromagnetic Flow Meters	1	Rservoir inline flow		
FT	Electromagnetic Flow Meters	1	Rservoir inline flow		

PLC Pa	nel Specificatio	<u>n</u>
Item Specification	Item	Specification
ltem No. P□-□-R□-PC		1PMCB, Approx. 5 pcs. Control cabinet socket
Panel Name PLC Panel		Power supply 24V DC supply
Metal clad enclosure in door use,	Internal	Fuse modular terminal, Approx. 5 pcs. Panel view graphic terminal
Bord Type doors in the front and double door	electrical	Ethernet switch
Power Operation voltage: AC400V	equipment	
supply Control voltage: AC230V		Analog signal-repeater power supply IT communication device
		Relay, Timer, Alarm setter, FAN (cooling), Panel light, Others required
Power 2PMCCB, Approx. 2 pcs. supply Surge arrester circuit UPS 1000VA Input AC230V Output AC230V	Technical general	Standard; #JISJEC,JEM/ #IEC/ BS/ BS/ BOT Indoor panels; Dust & Vermin proof with airfil Steel thiness; not less than 2.3mm, Door & Ir less than 3.2mm. Accessor; #Foundation bolts/ #Channel ba paint/ #Panel key /
	Panel sizes	are for reference only.

Installation location: Reservoir facility Electrical Room

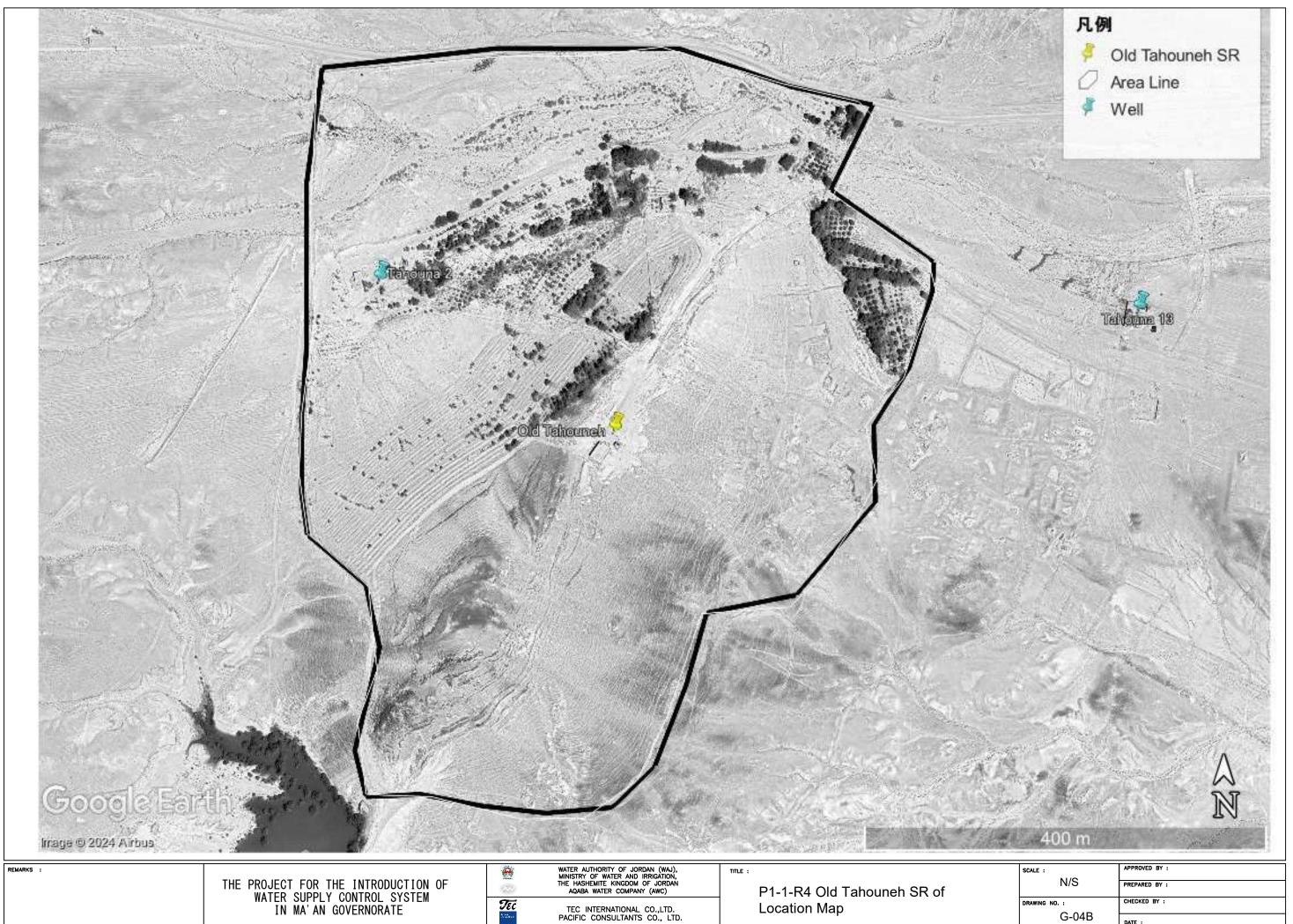


tput signal				
	Kw/h			
age	v			
rent	А			
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	Kw/h			
	v			
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псу	Hz			
factor	PF			
	min-1			
set				
	-			

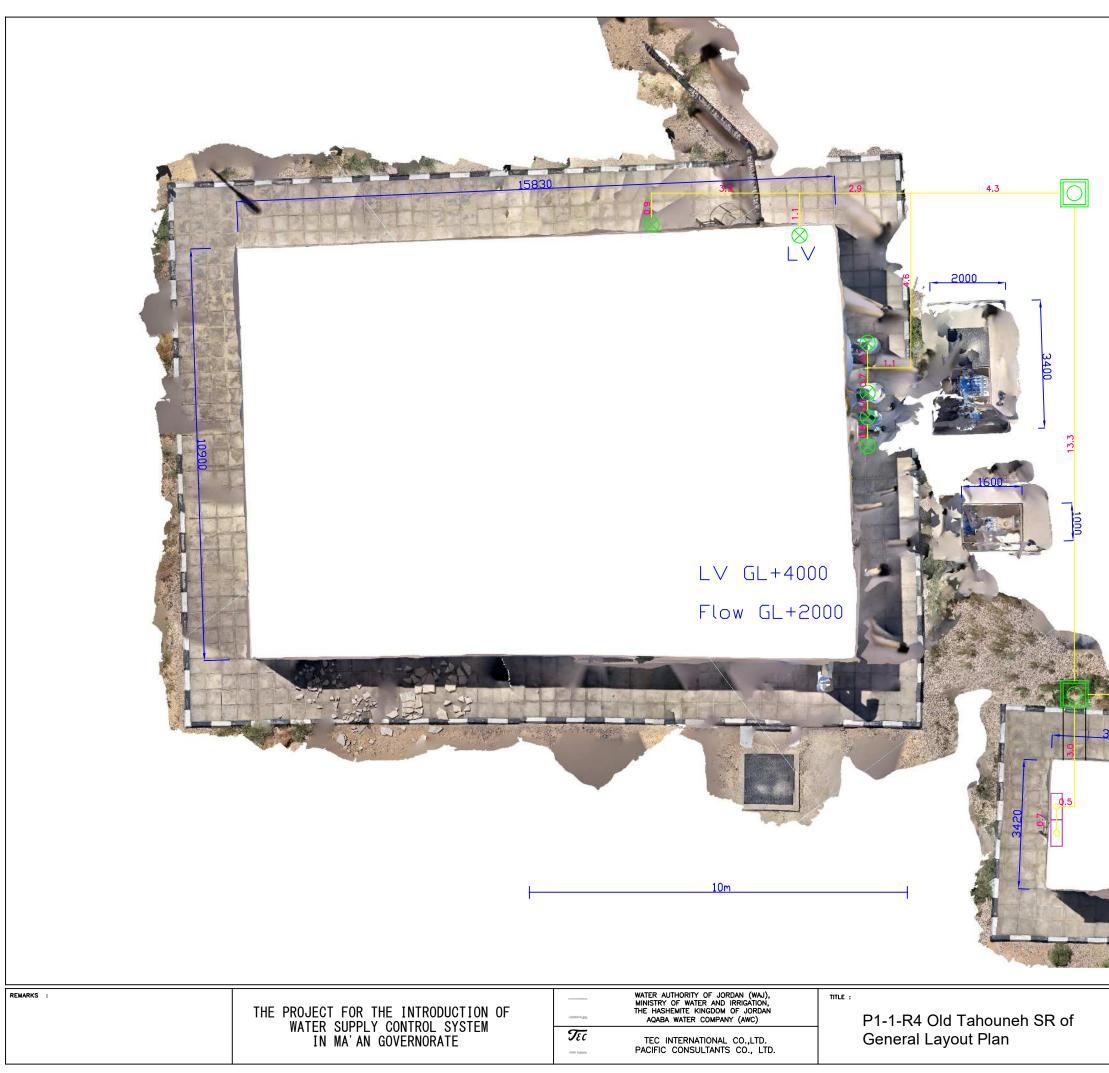
m
m3/Hr
m3/Hr
m3/Hr



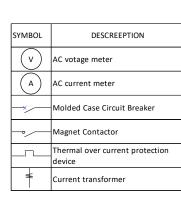
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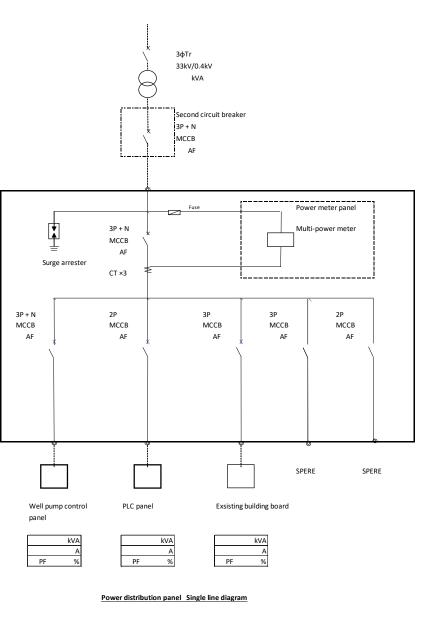
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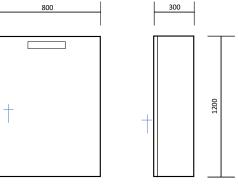


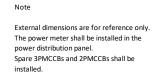
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Scale : S=1:100 (A3) DRAWING NO. : G-05	APPROVED BY : PREPARED BY : CHECKED BY :



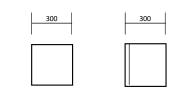
Motor Capacity	Main MCCB	Pump MCCB
7.5	3P+N MCCB	3P MCCB
7.5		50AF/30AT
11	3P+N MCCB	3P MCCB
11		50AF/40AT
15	3P+N MCCB	3P MCCB
		50AF50AT
18.5	3P+N MCCB	3P MCCB
		100AF/75AT
22	3P+N MCCB	3P MCCB
		100AF/100AT
37	3P+N MCCB	3P MCCB
57		225AH/125AT
	3P+N MCCB	3P MCCB
45		225AF/150AT
	3P+N MCCB	3P MCCB
55		225AF/175AT
	3P+N MCCB	3P MCCB
75		225AF/225AT
00	3P+N MCCB	3P MCCB
90		400AF/250AT
110	3P+N MCCB	3P MCCB
110		400AF/300AT
	3P+N MCCB	3P MCCB
132		400AF/300AT
150	3P+N MCCB	3P MCCB
150		400AF/400AT
180	3P+N MCCB	3P MCCB
100		400AF/400AT
220	3P+N MCCB	3P MCCB
220		600AF/500AT







Power distribution panel Panel Outline



Power meter panels shall be installed when the existing power distribution panel does not need to be replaced.

Note

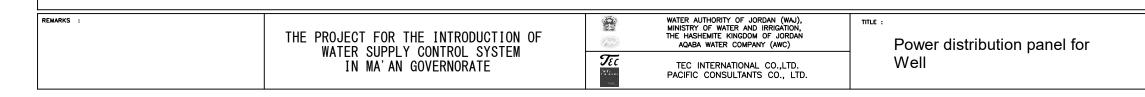
Power meter panel Panel Outline

Power distribution panel Specification

8

ltem	Specification	Item	Specification
Item No.	P□-□-□W□-MD		1PMCB, Approx. 3 pcs.
Panel Name	e Power distribution panel		Fuse modular terminal, Approx. 3 pcs. Others required
Bord Type	Metal clad enclosure in door use, doors in the front and double door	Internal electrical	
Power supply	Operation voltage: AC400V	equipment	
Power supply circuit	3PMCCB, Approx. 3 pcs. Surge arrester 2PMCCB, Approx. 2 pcs. Multi-power meter	Technical general	Standard; UIS,JEC,JEM./ UIEC/ UBS/ OTHER Indoor panels Steel thicness; not less than 2.3mm, Door & Inside plate; not less than 2.3mm. Accessory: GFoundation bolts/ Channel base / Touch-up paint/ Panel key /
			Panel sizes are for reference only.

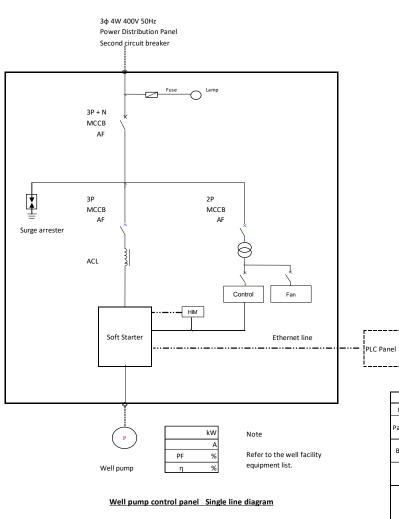
Installation location: Pump Station Electrical Room

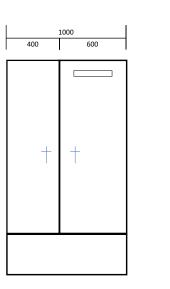


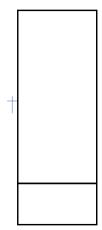
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SYMBOL	DESCREEPTION
v	AC votage meter
A	AC current meter
~~	Molded Case Circuit Breaker
	Magnet Contactor
	Thermal over current protection device
\$	Current transformer

Motor Capacity	Main MCCB	Pump MCCB	Soft Starter	VFD
7.5	3P+N MCCB	3P MCCB 50AF/30AT		
11	3P+N MCCB	3P MCCB 50AF/40AT		
15	3P+N MCCB	3P MCCB 50AF50AT		
18.5	3P+N MCCB	3P MCCB 100AF/75AT		
22	3P+N MCCB	3P MCCB 100AF/100AT		
37	3P+N MCCB	3P MCCB 225AH/125AT		
45	3P+N MCCB	3P MCCB 225AF/150AT		
55	3P+N MCCB	3P MCCB 225AF/175AT		
75	3P+N MCCB	3P MCCB 225AF/225AT		
90	3P+N MCCB	3P MCCB 400AF/250AT		
110	3P+N MCCB	3P MCCB 400AF/300AT		
132	3P+N MCCB 3P MCCB			
150	3P+N MCCB	ЗР МССВ		
180	3P+N MCCB	ЗР МССВ		
220	3P+N MCCB	ЗР МССВ		







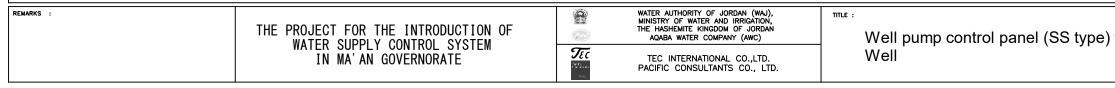
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Well pump control panel Panel Outline
<u>(180kW type for reference)</u>

Well pump control panel Specification

Item	Specification	Item	Specification
Item No.	P□-□-□W□-WP		1PMCB, Approx. 5 pcs.
Panel Name	Well pump control panel		Control cabinet socket Power supply 24V DC supply
Bord Type	Metal clad enclosure in door use, doors in the front and double door	Internal electrical	Fuse modular terminal, Approx. 5 pcs. HIM
Power supply		equipment	Ethernet switch Relay, Timer, Alarm setter,
Power supply circuit	3PMCCB, Approx. 2 pcs. Surge arrester 2PMCCB Transformer ACL	Technical general	FAN (cooling), Panel light, Others require Standard; JIS, JEC, JEM, JEC/ JBS, / OTH- Indoor panels; Dust & Vermin proof with air fil Steel thicness; not less than 2.3mm, Door & In less than 3.2mm.
	VFD		Accessory; ■Foundation bolts / ■Channel ba paint / ■Panel key /
		Panel sizes a	are for reference only.

Installation location: Pump Station Electrical Room

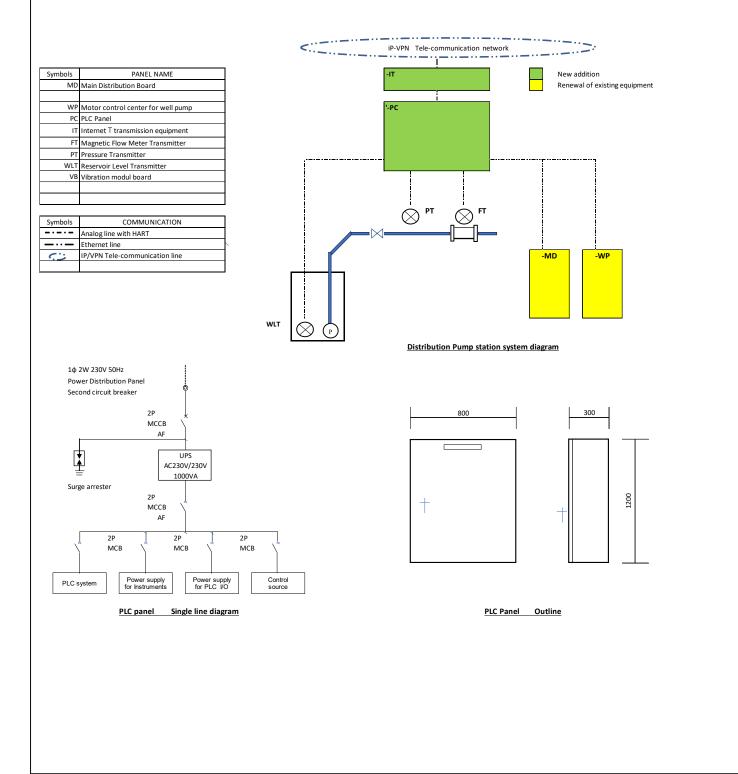


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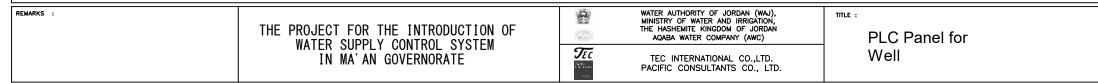
Symbol	Equipment name	Q'ty		quipments signa		Analog input/out
<u> </u>			DI	Receiving Panel MCCB on	AI	Power usage
			DI	Receiving Panel MCCB fault	AI	Receiving volt
			DI	Electrical equipment fault	AI	Receiving curr
-IVID	Power Distribution Panel	1			AI	Frequency
					AI	Power factor
			DI	Well Pump Remote	AI	Power usage
	Well Pump Control Panel	1	DI	Well Pump Start ready	AI	Pump voltage
			DI	Well Pump Run	AI	Pump current
			DI	Well Pump Fault	AI	pump frequer
			DI	VFD Fault	AI	pump power f
			DI	Well water level Low	AI	Pump speed
-IVIC			DI	MCCB status		
			DI	MCCB trip		
			DO	Start	AO	Pump rotation s
			DO	Stop		

Measure Instrument equipments signal list				
Symbol	Equipment name	Q'ty	Analog input signal	
LT	Ultrasonic Level Measurements	1	Well water level	
PT	Pressure monitoring device	1	Well pump discherge pressure	
FT	Electromagnetic Flow Meters	1	Well pump discherge flow	

PLC Panel Specification

Item	Specification	Item	Specification
ltem No.	P□-□-□W□-PC		1PMCB, Approx. 15 pcs.
Panel Name	PLC Panel		Control cabinet socket Power supply 24V DC supply
	Metal clad enclosure in door use,	Internal	Fuse modular terminal, Approx. 10 pcs. Panel view graphic terminal
Bord Type	doors in the front and double door	electrical	Ethernet switch
Power	Operation voltage: AC400V	equipment	PLC system (including DIO/AIO)
supply	Control voltage: AC230V		Analog signal-repeater power supply IT communication device
,			Relay, Timer, Alarm setter, FAN (cooling), Panel light, Others required
Power supply circuit	2PMCCB, Approx. 2 pcs. Surge arrester UPS 1000VA Input AC230V Output AC230V	Technical general	Standard; #JIS,JEC,JEM./ #IEC/ @BS/ @OT Indoor panels; Dust & Vermin proof with air f Steel thicness; not less than 2.3mm. Door & I less than 3.2mm. Accessor; #Foundation bolts / #Channel b paint./ #Panel key./

Installation location: Pump Station Electrical Room

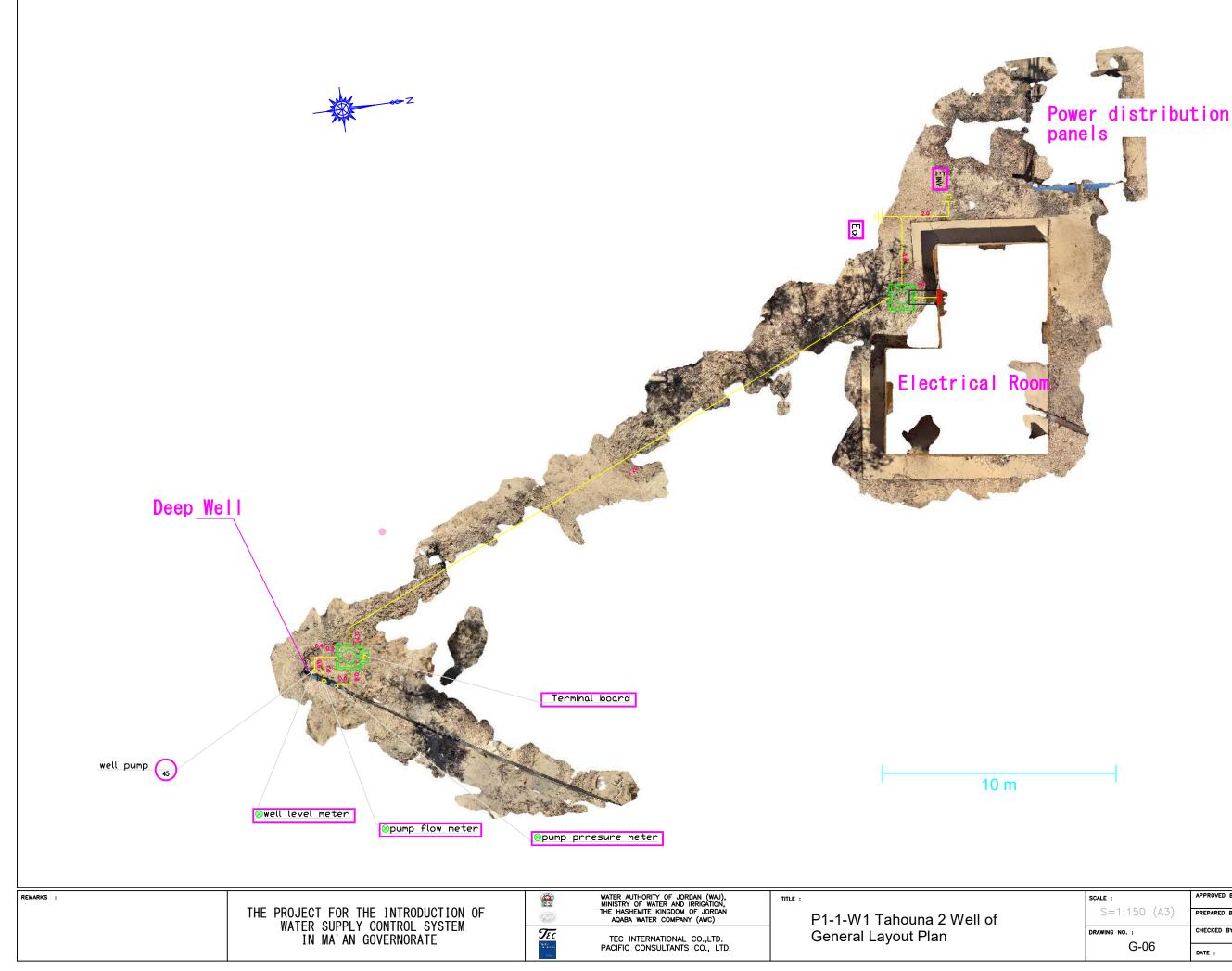


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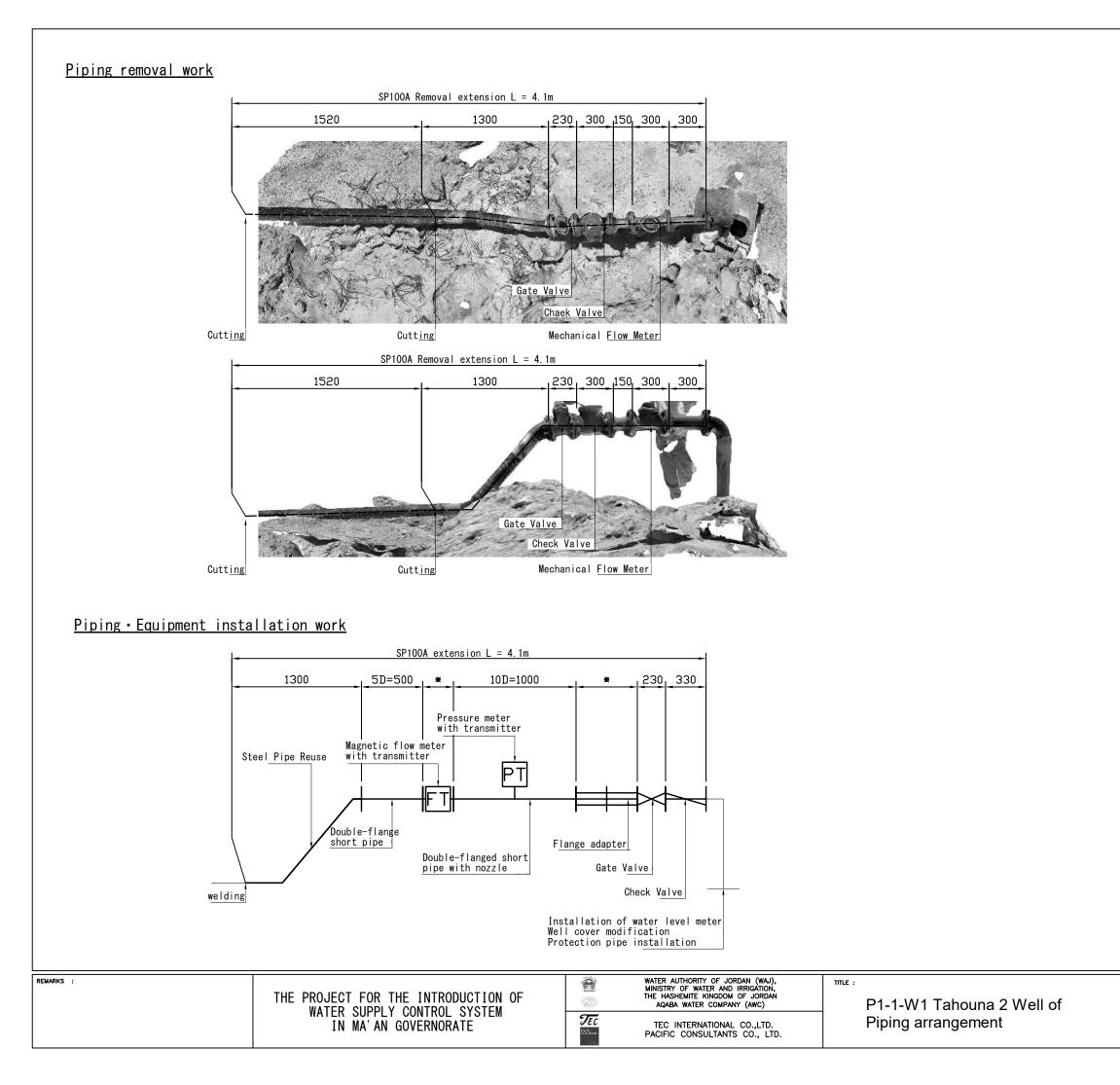
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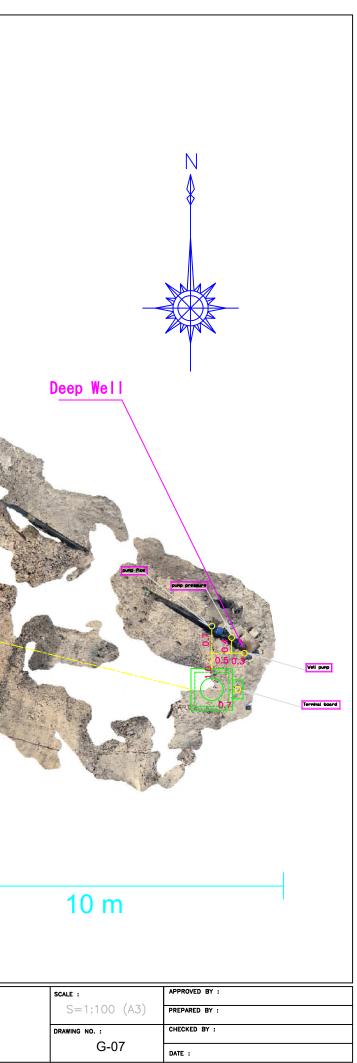


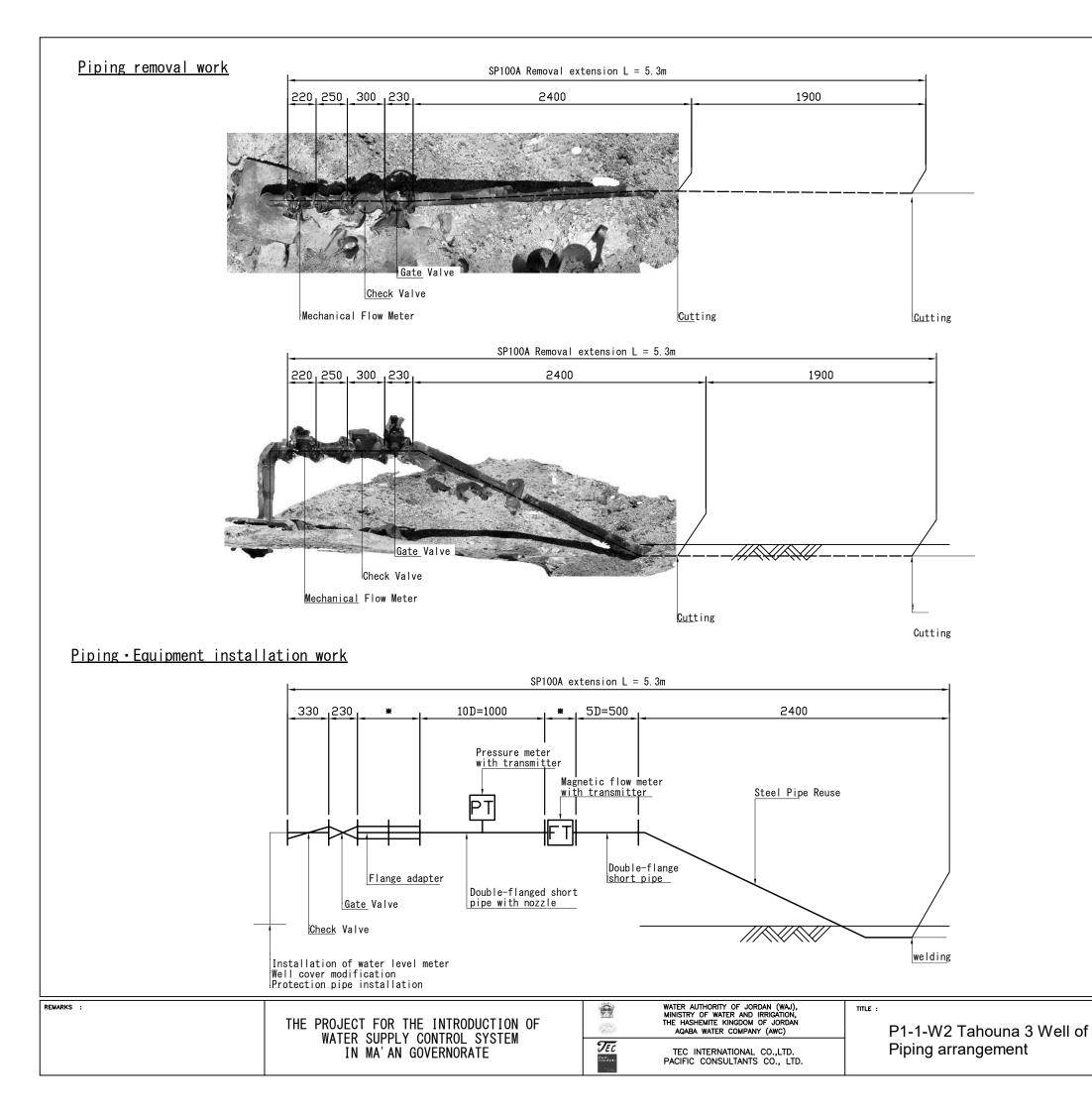
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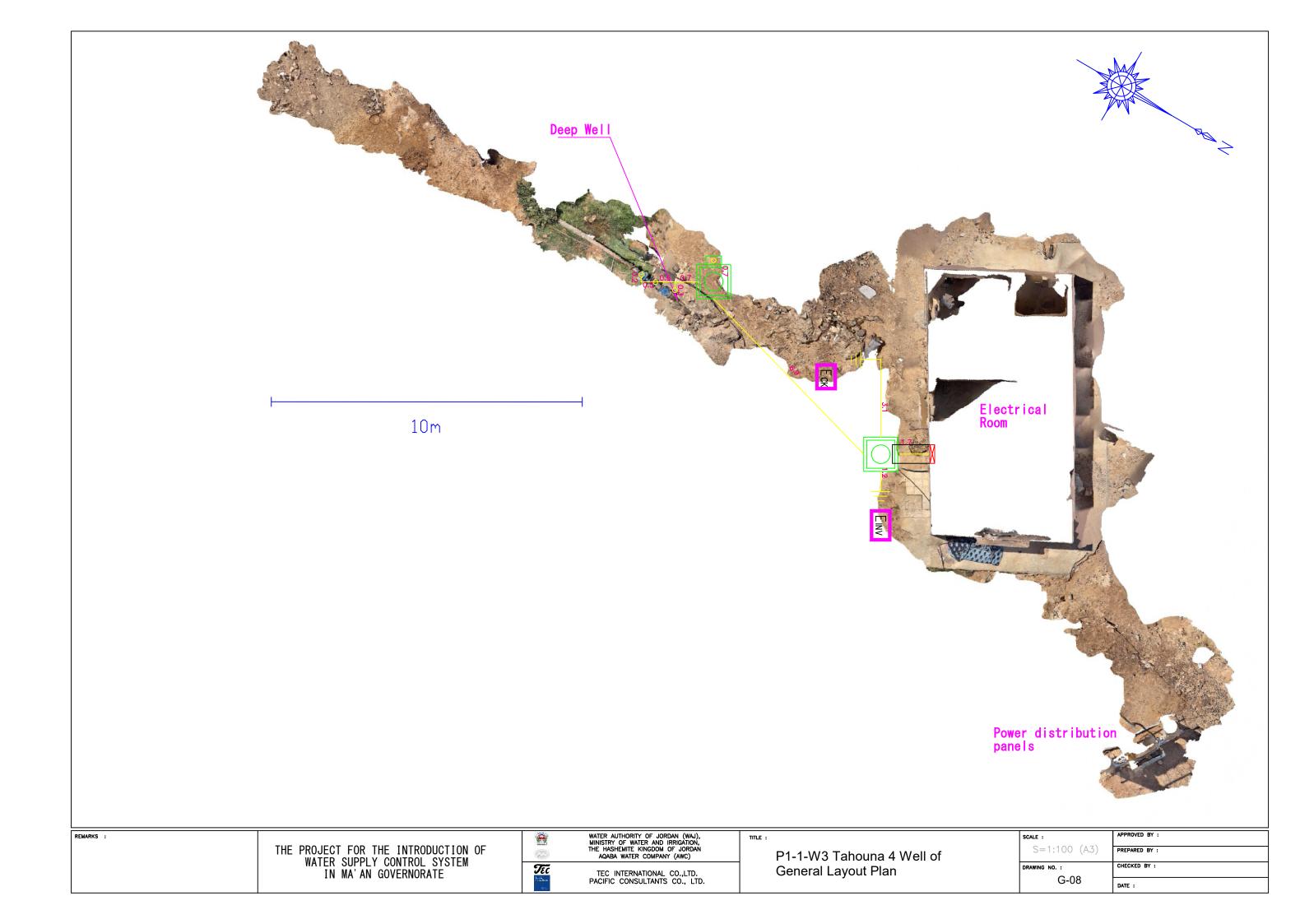
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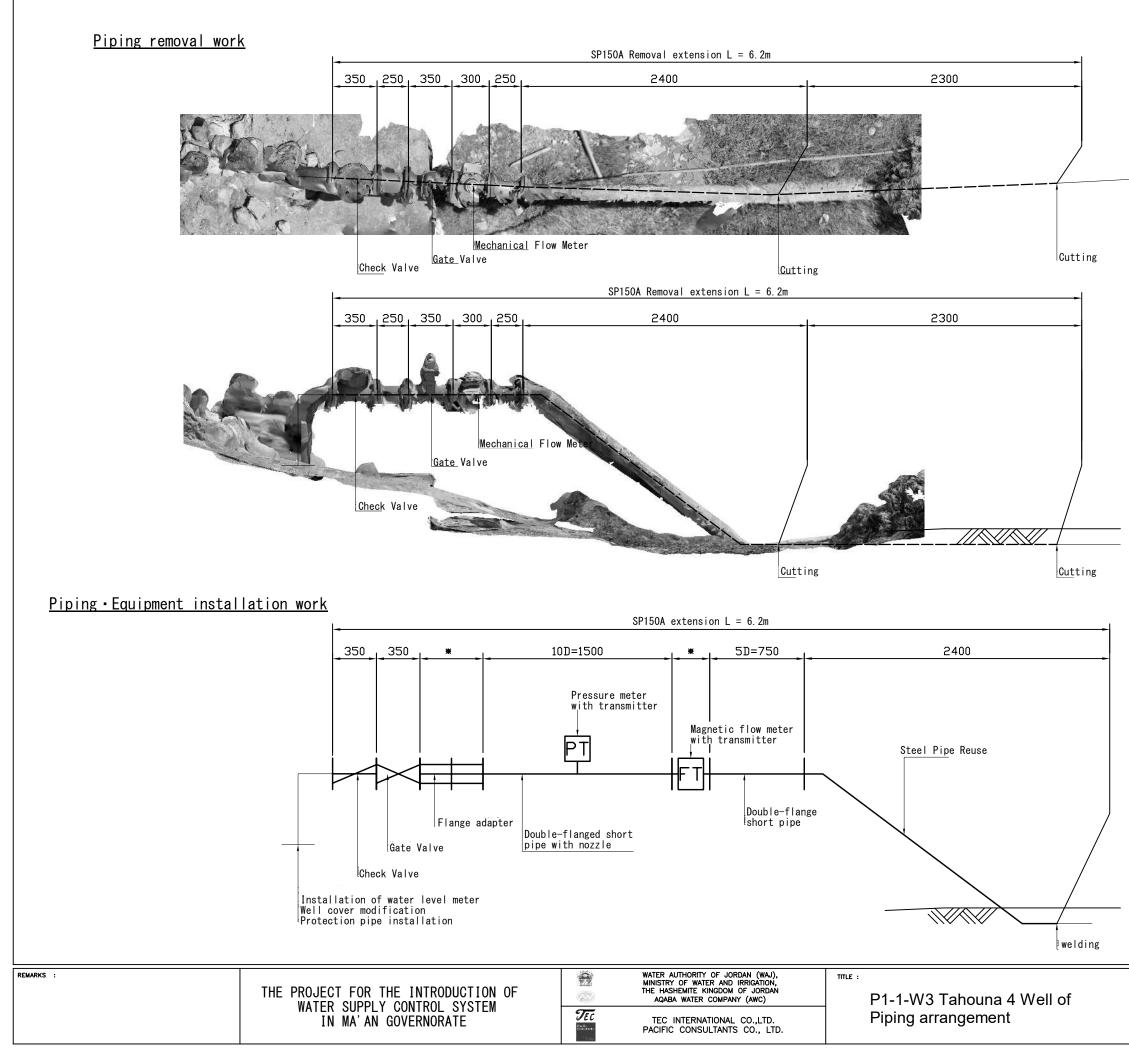
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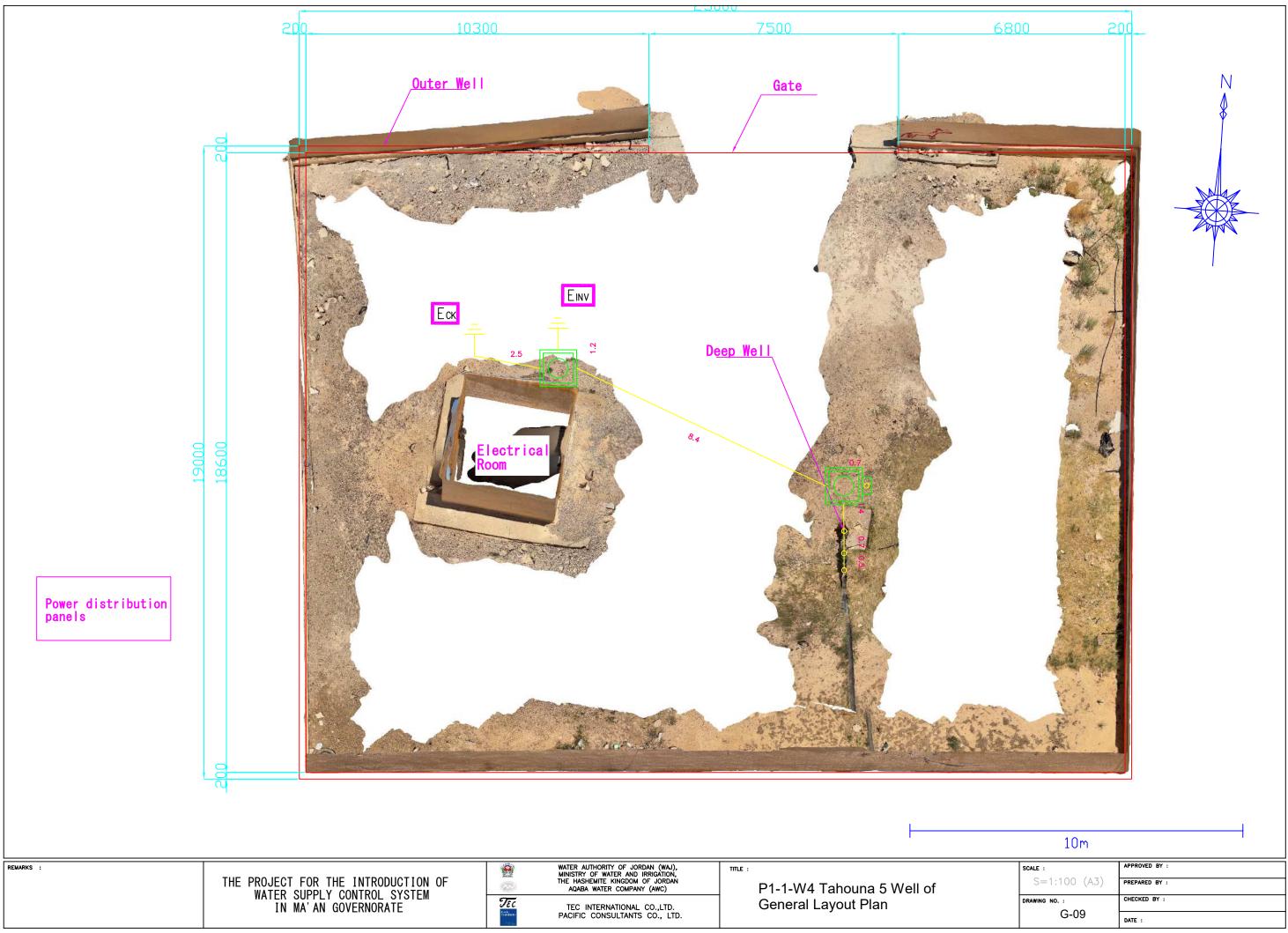


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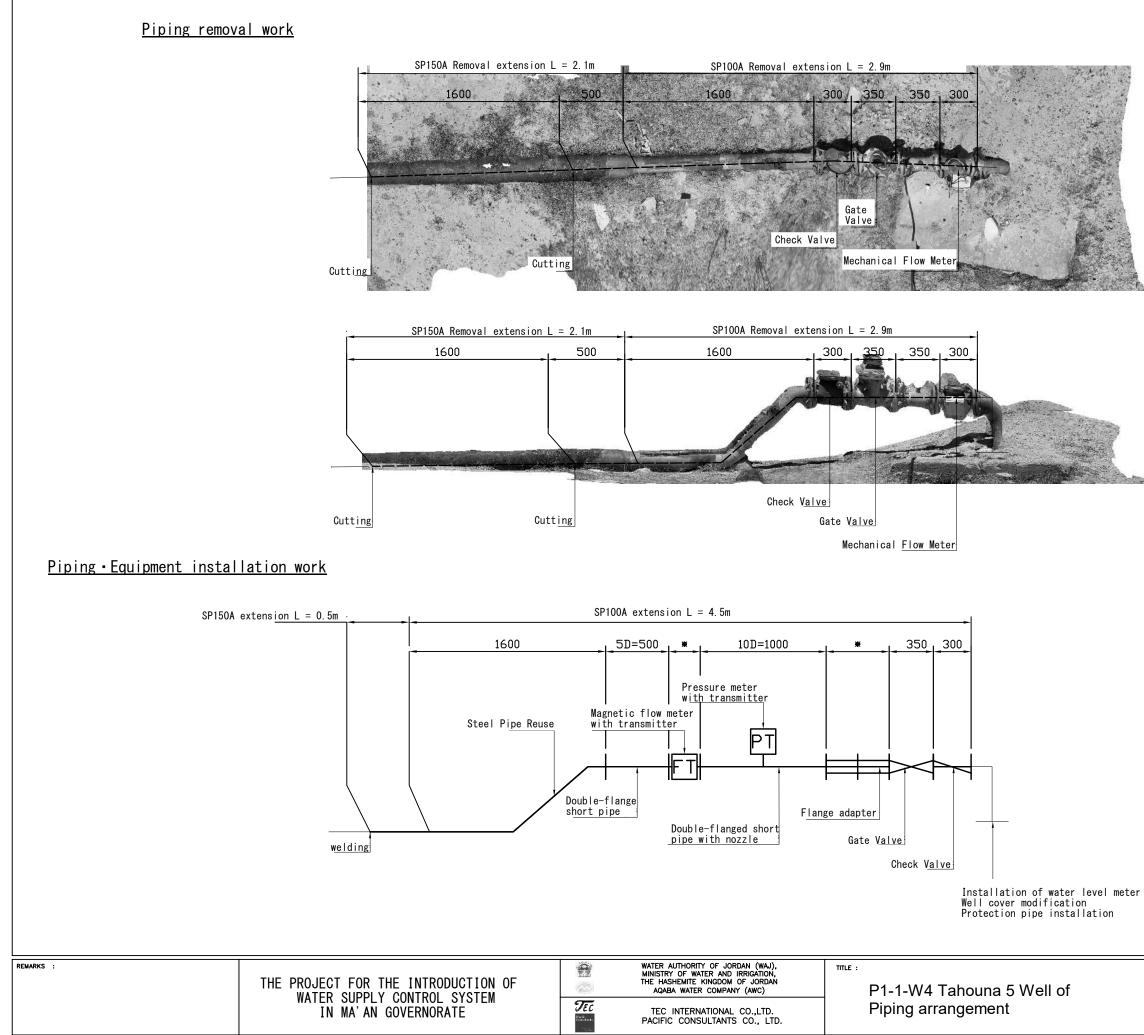




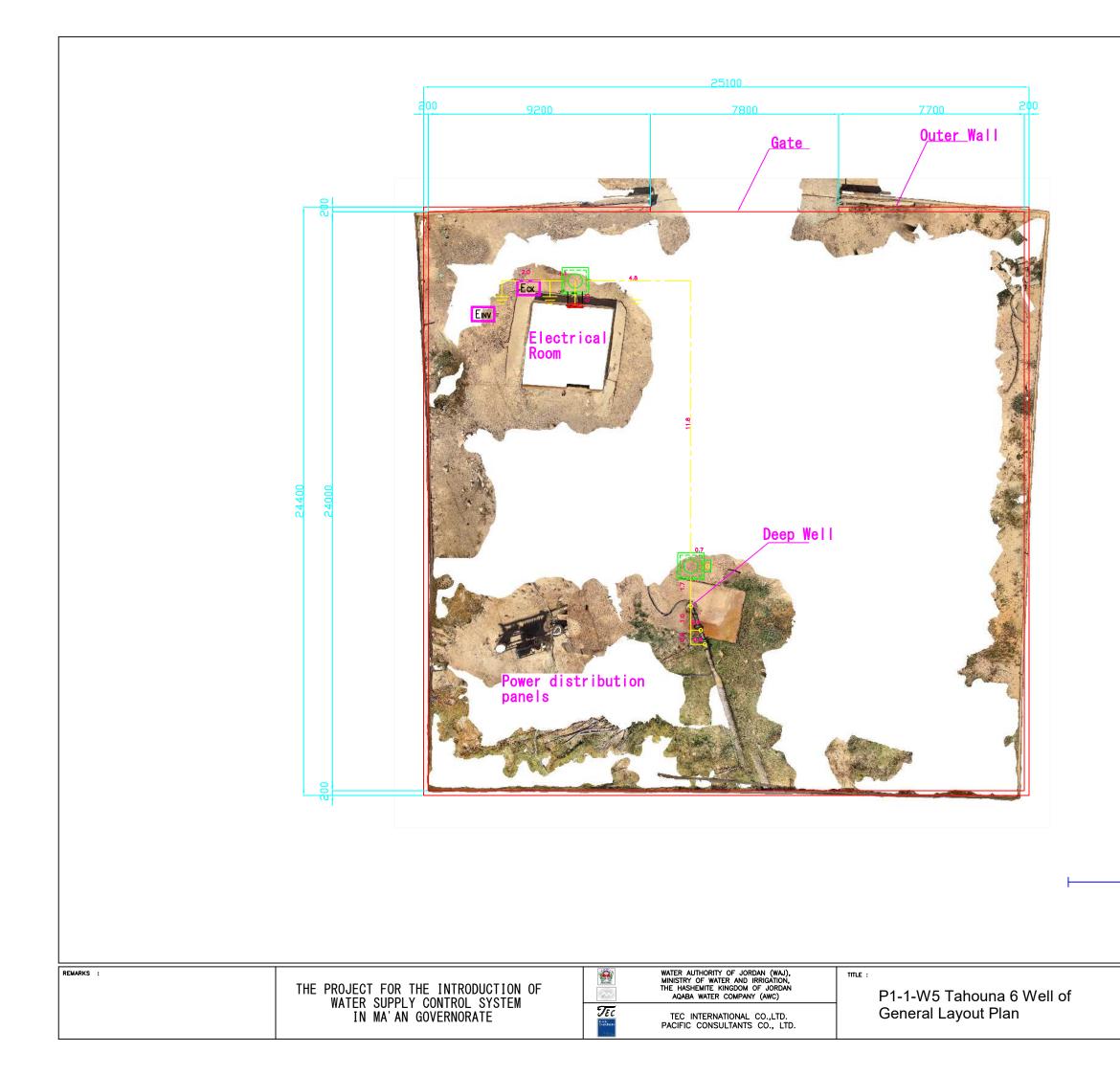
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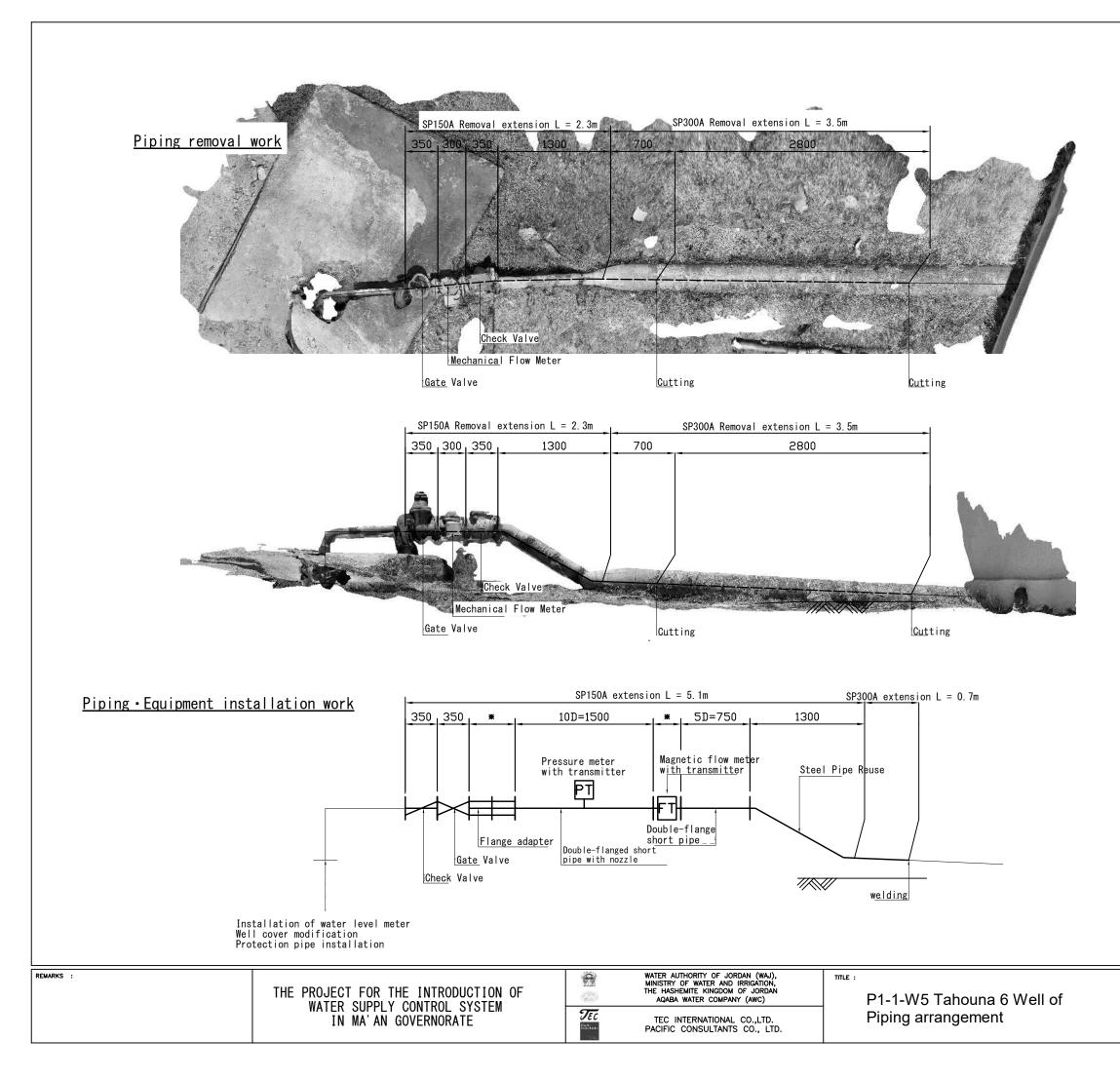
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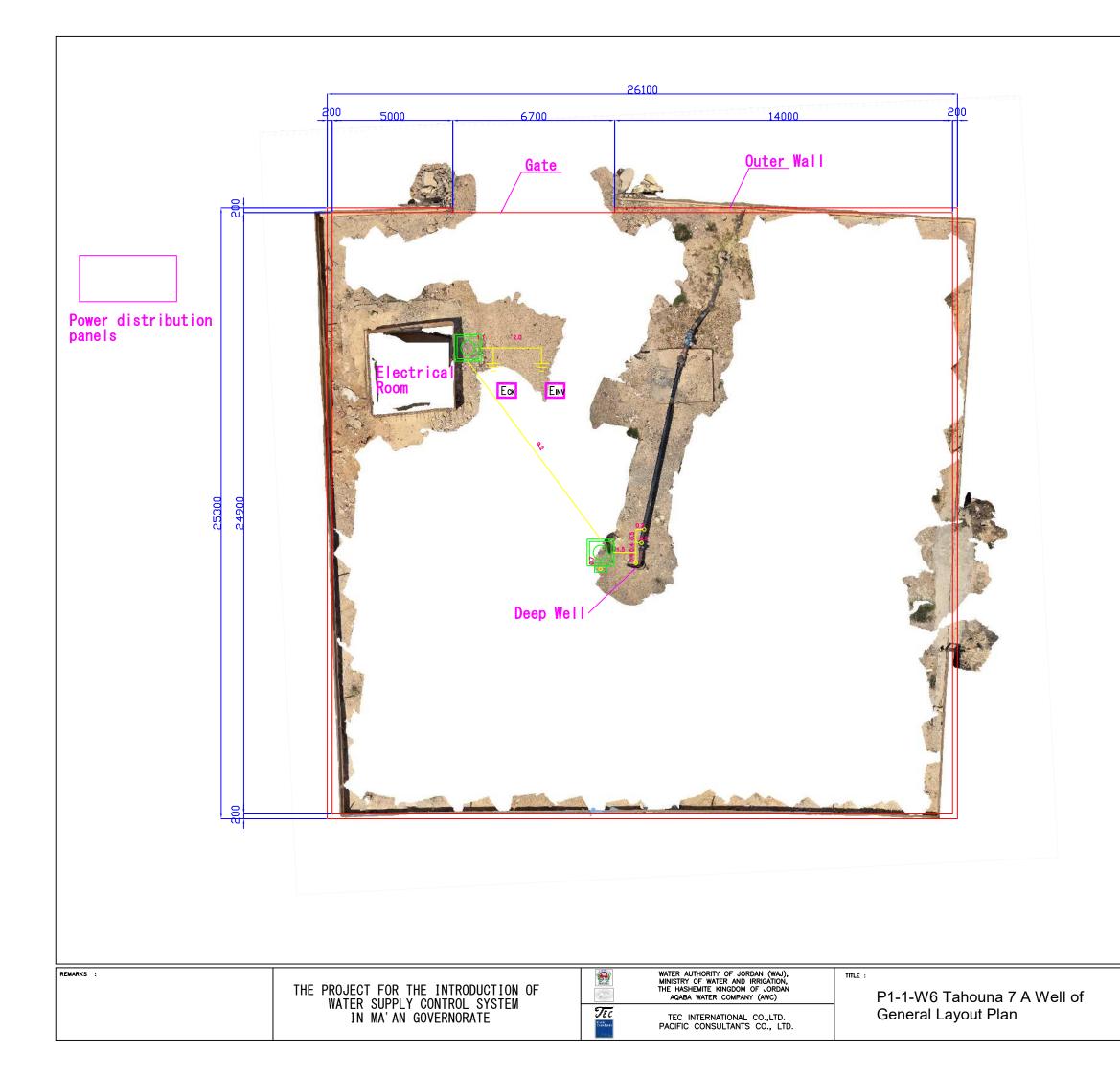
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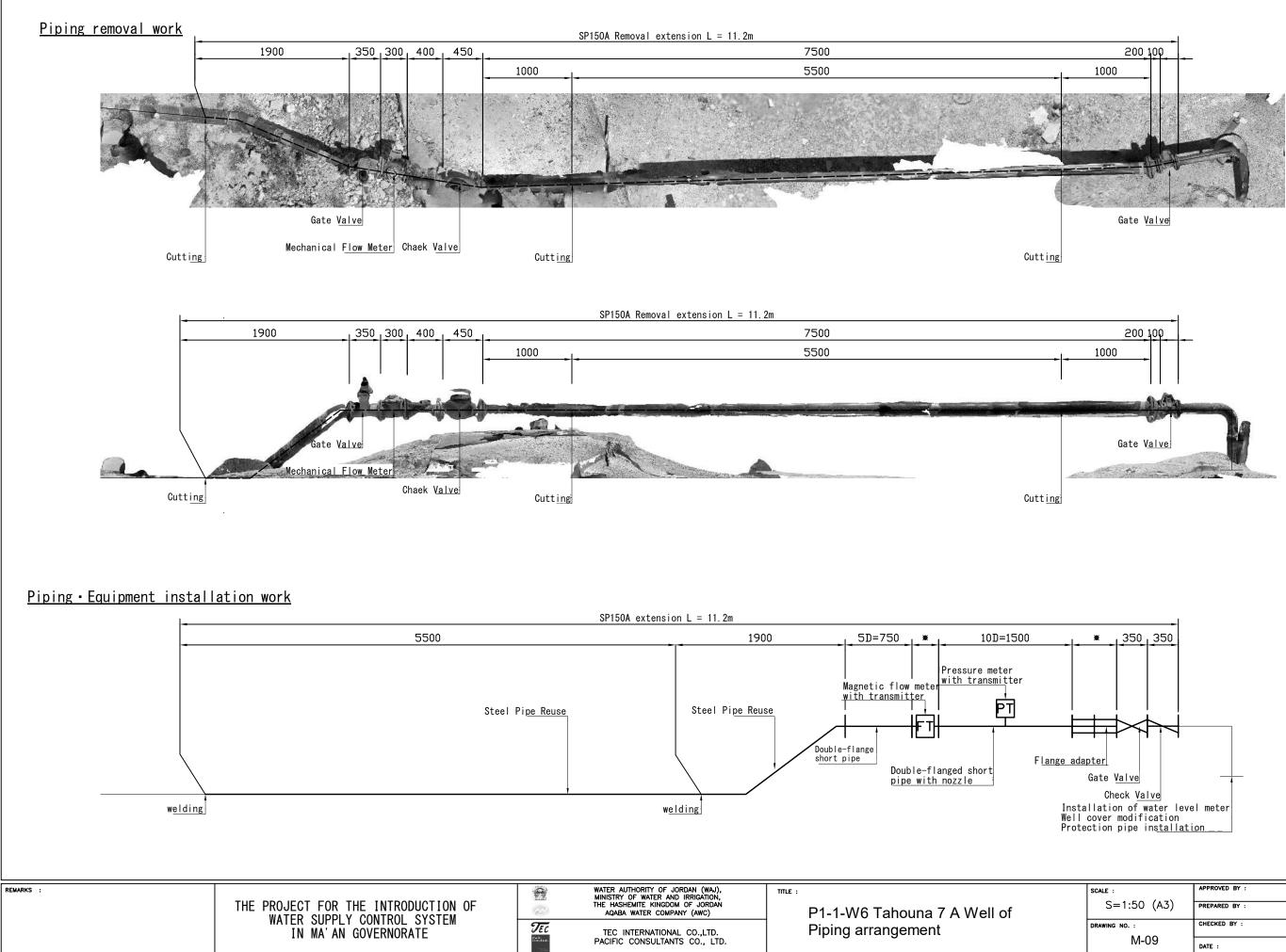
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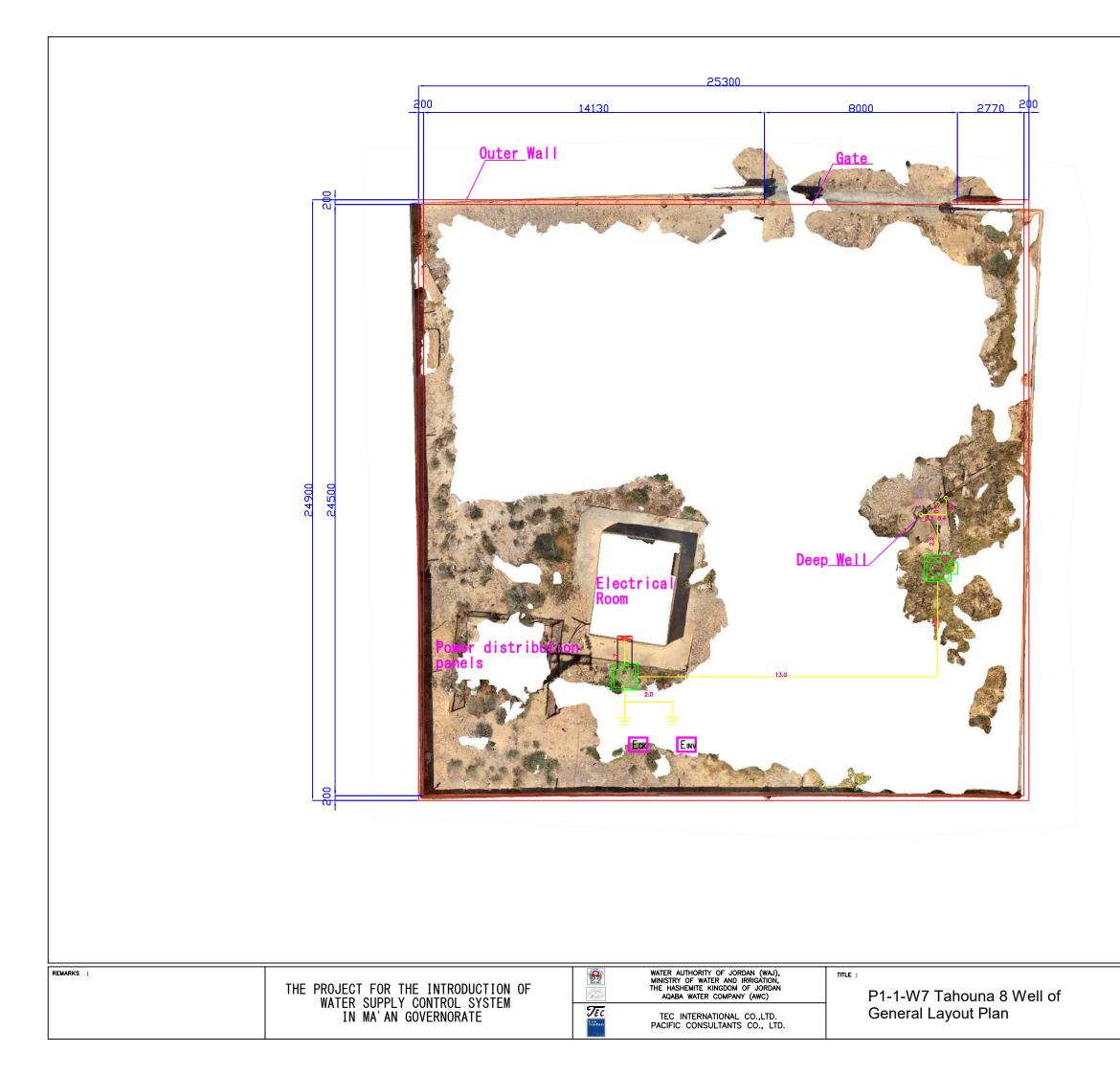
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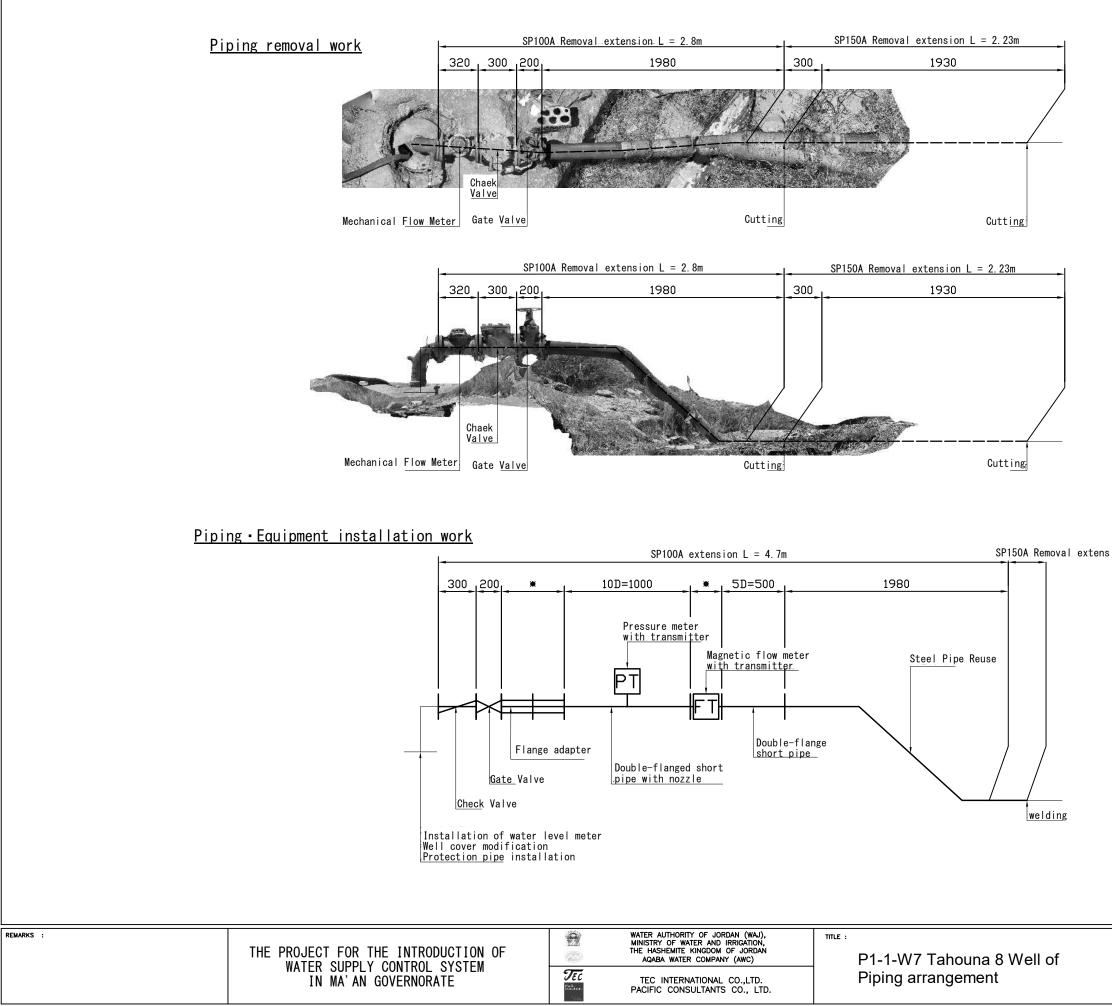
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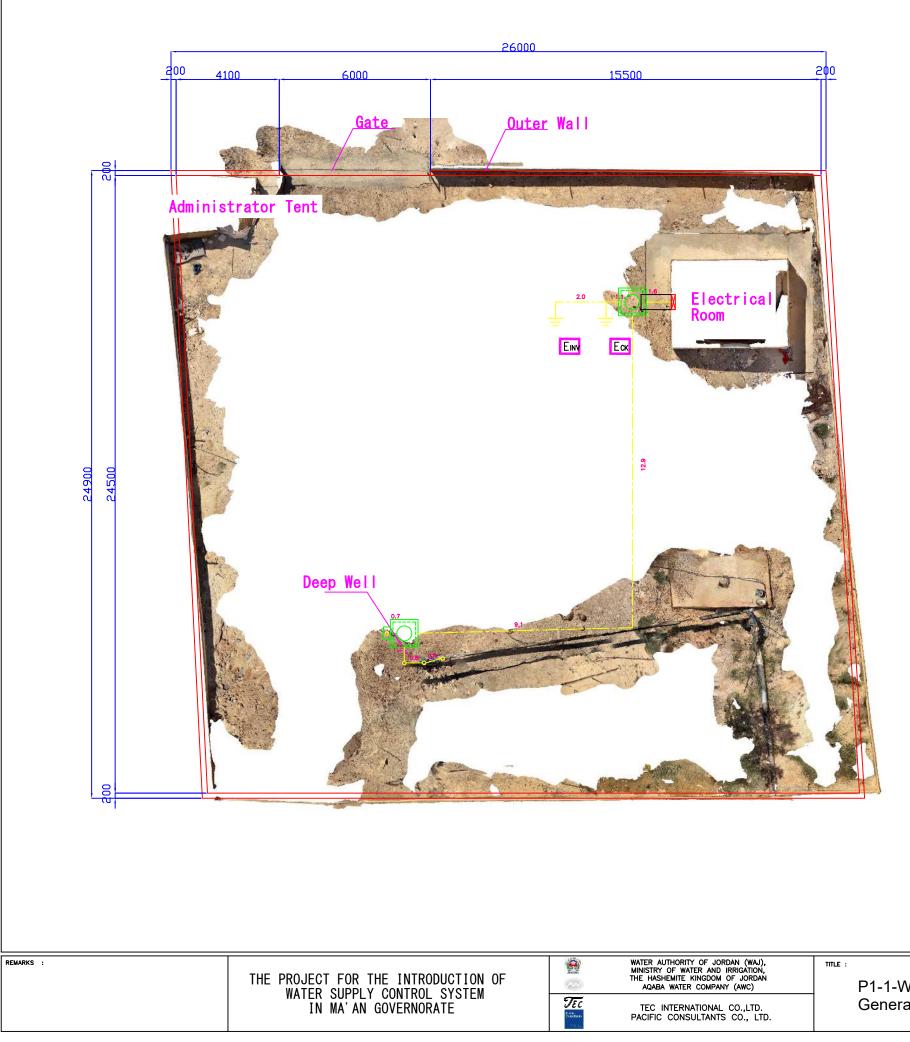
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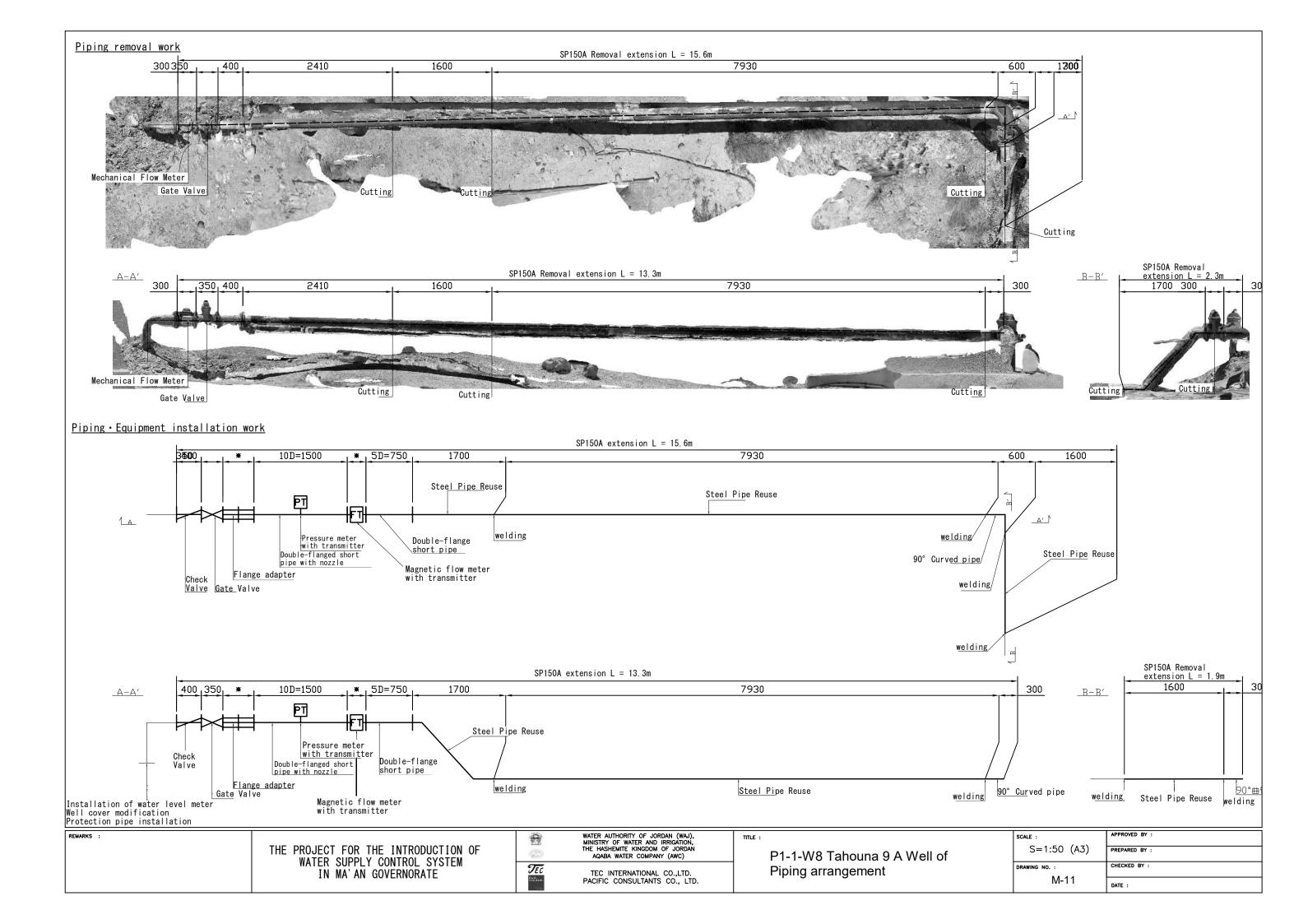


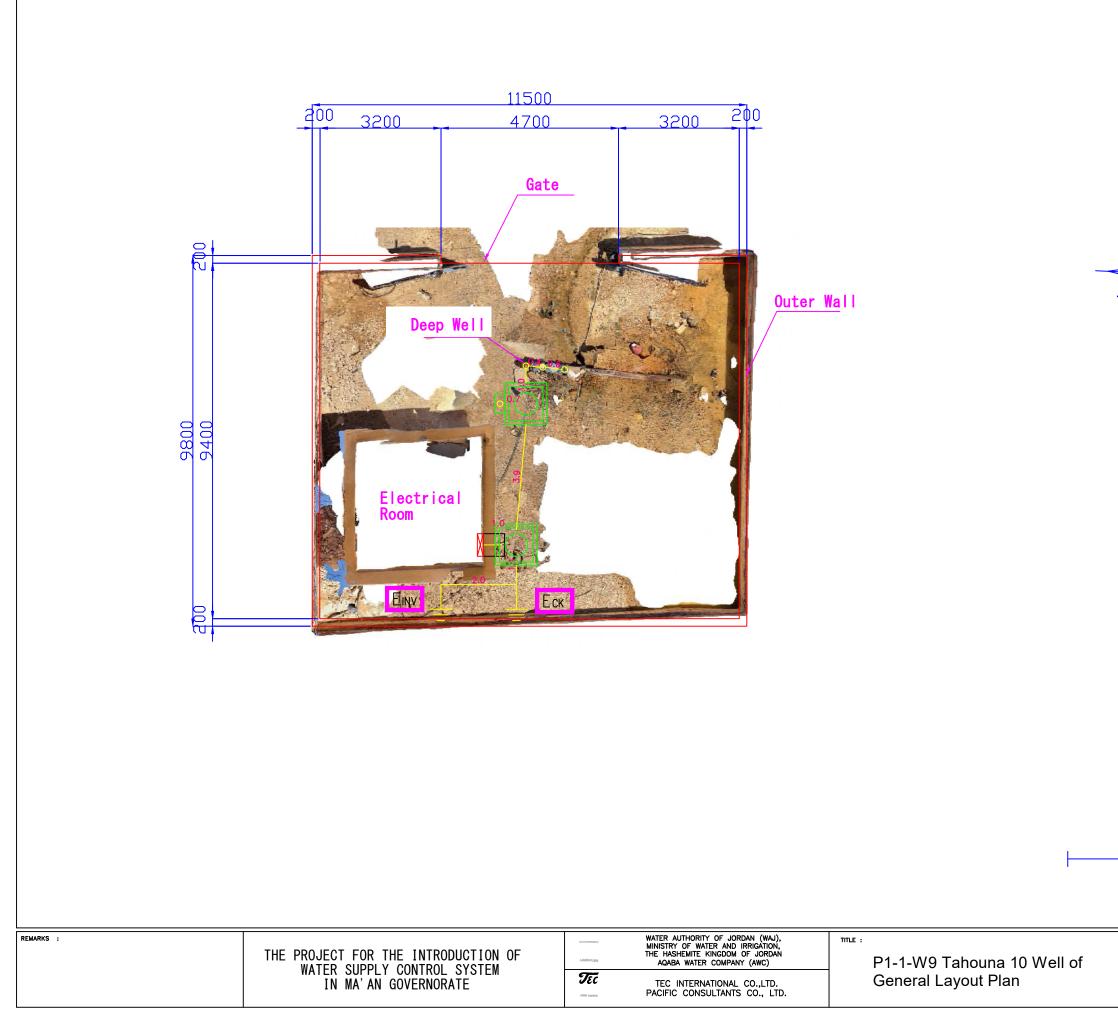


P1-1-W8 Tahouna 9 A Well of General Layout Plan

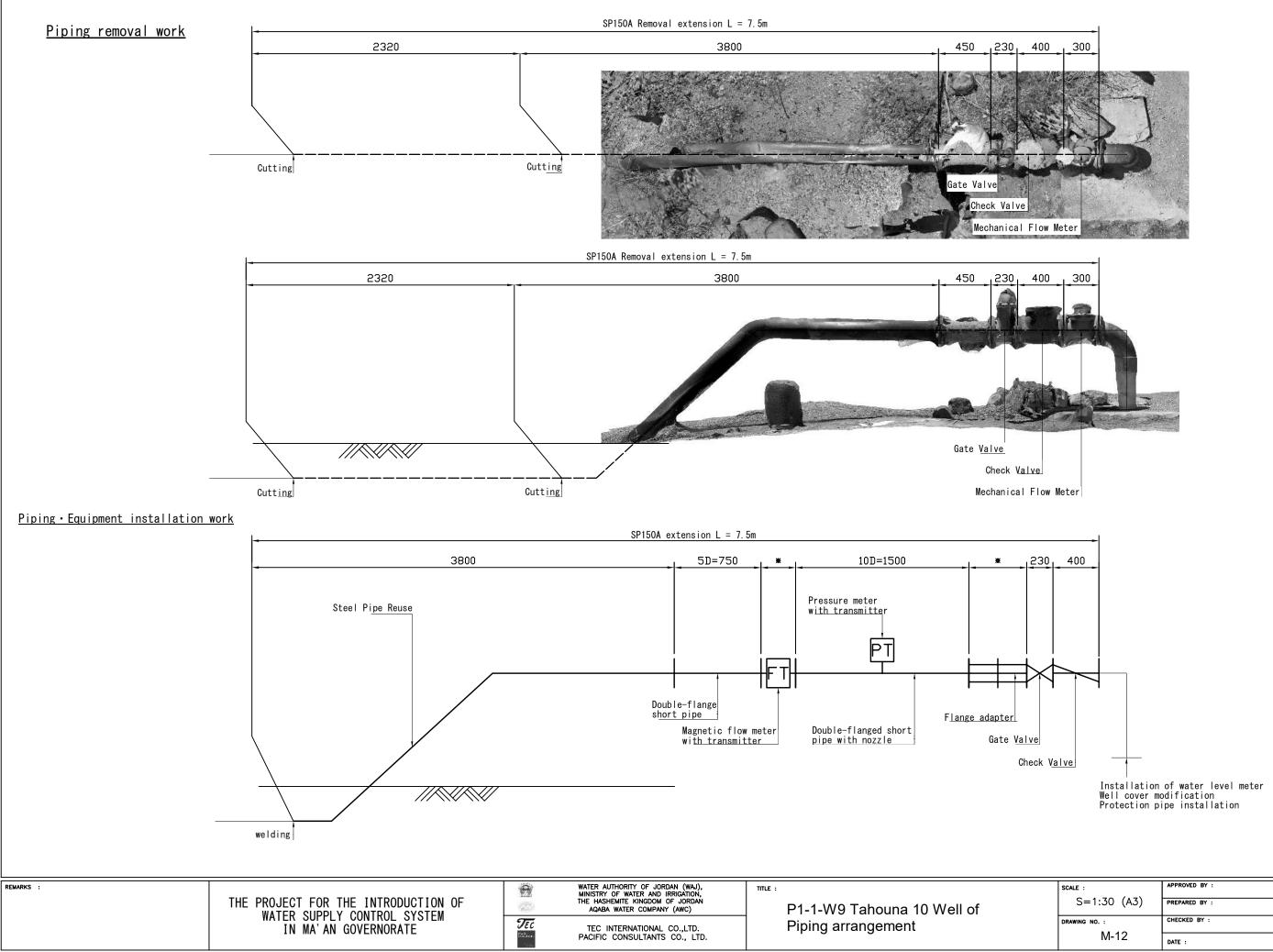
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Power distribution panels

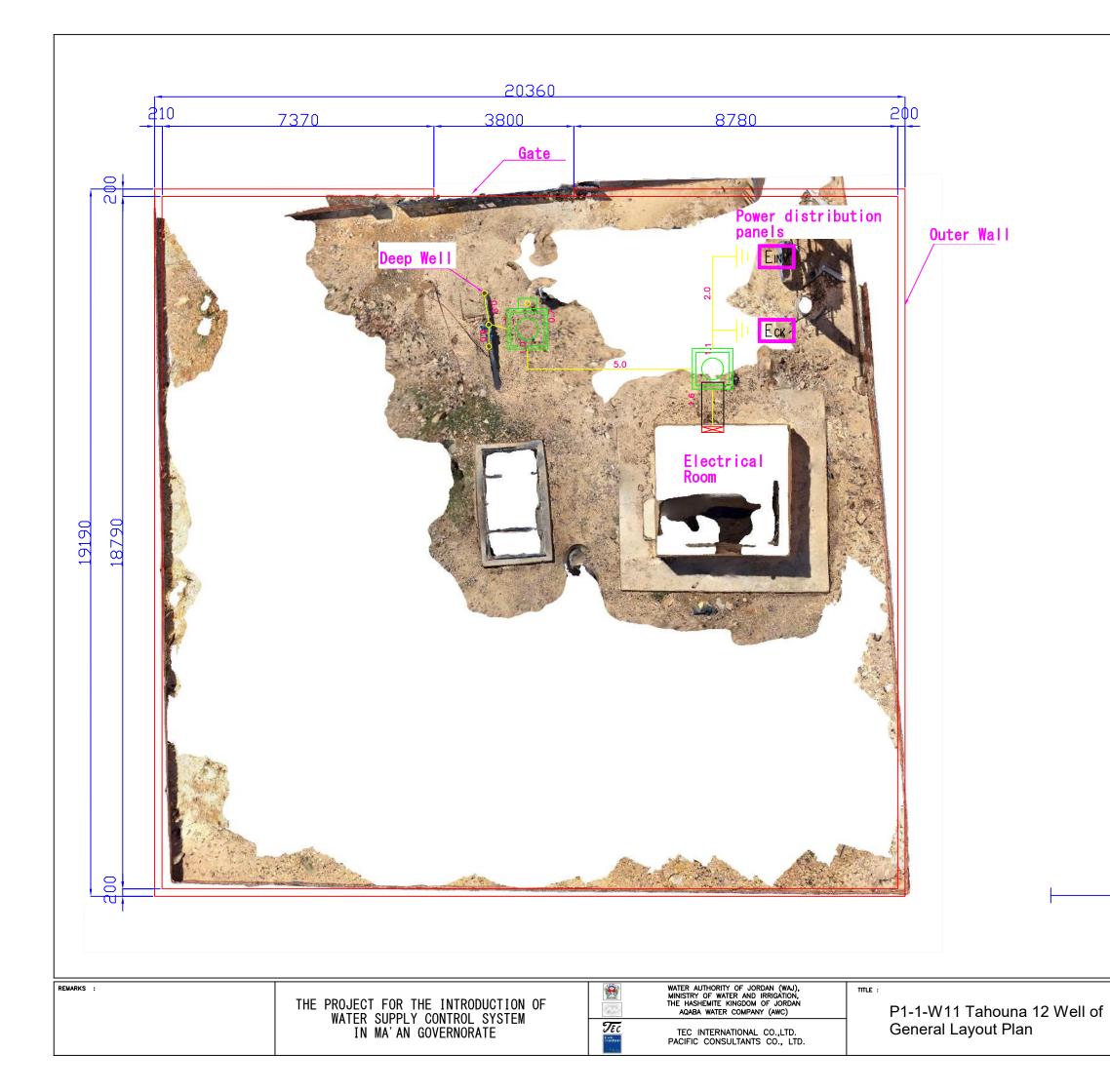


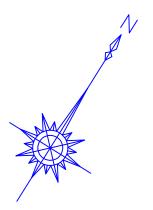


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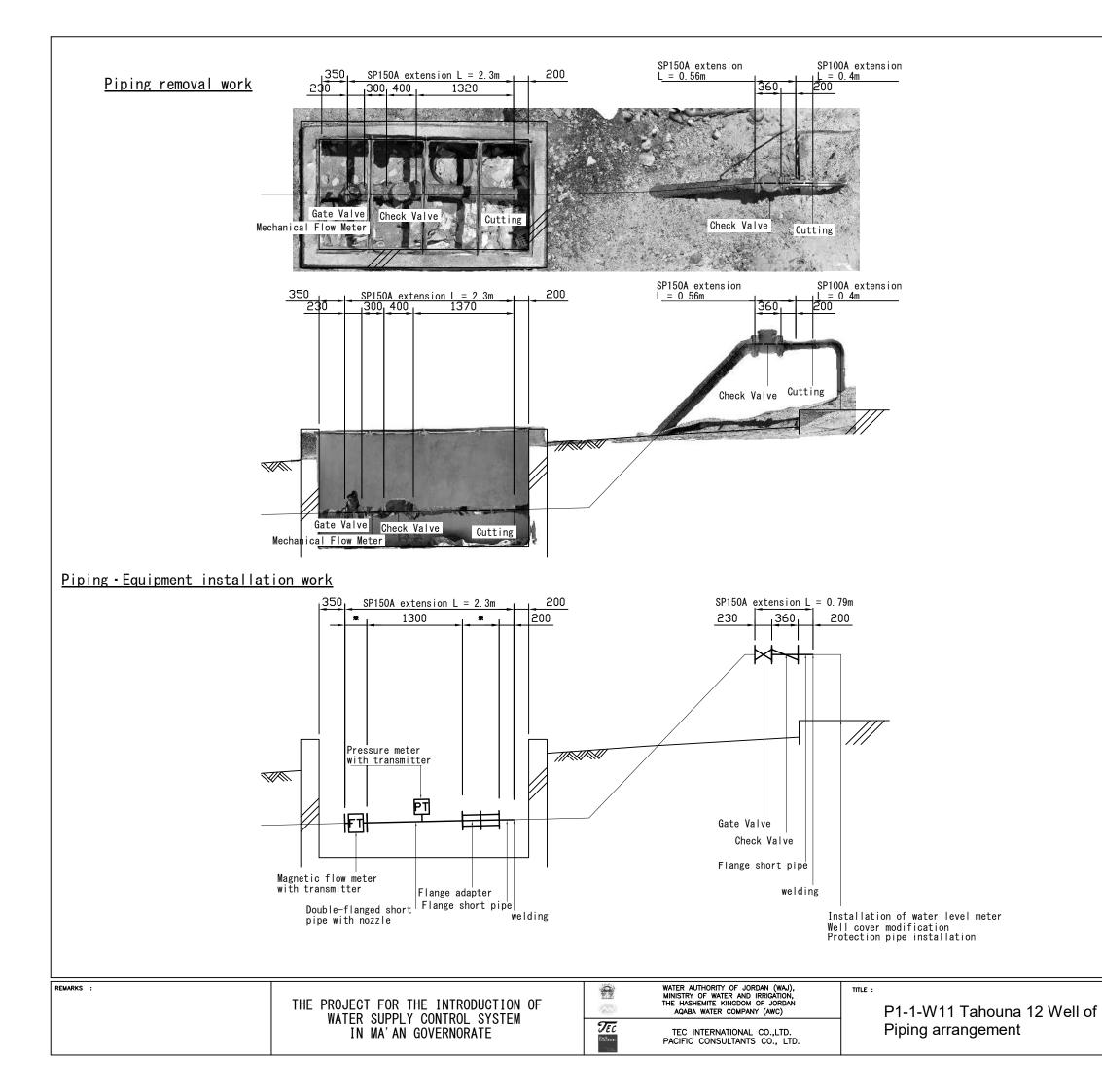


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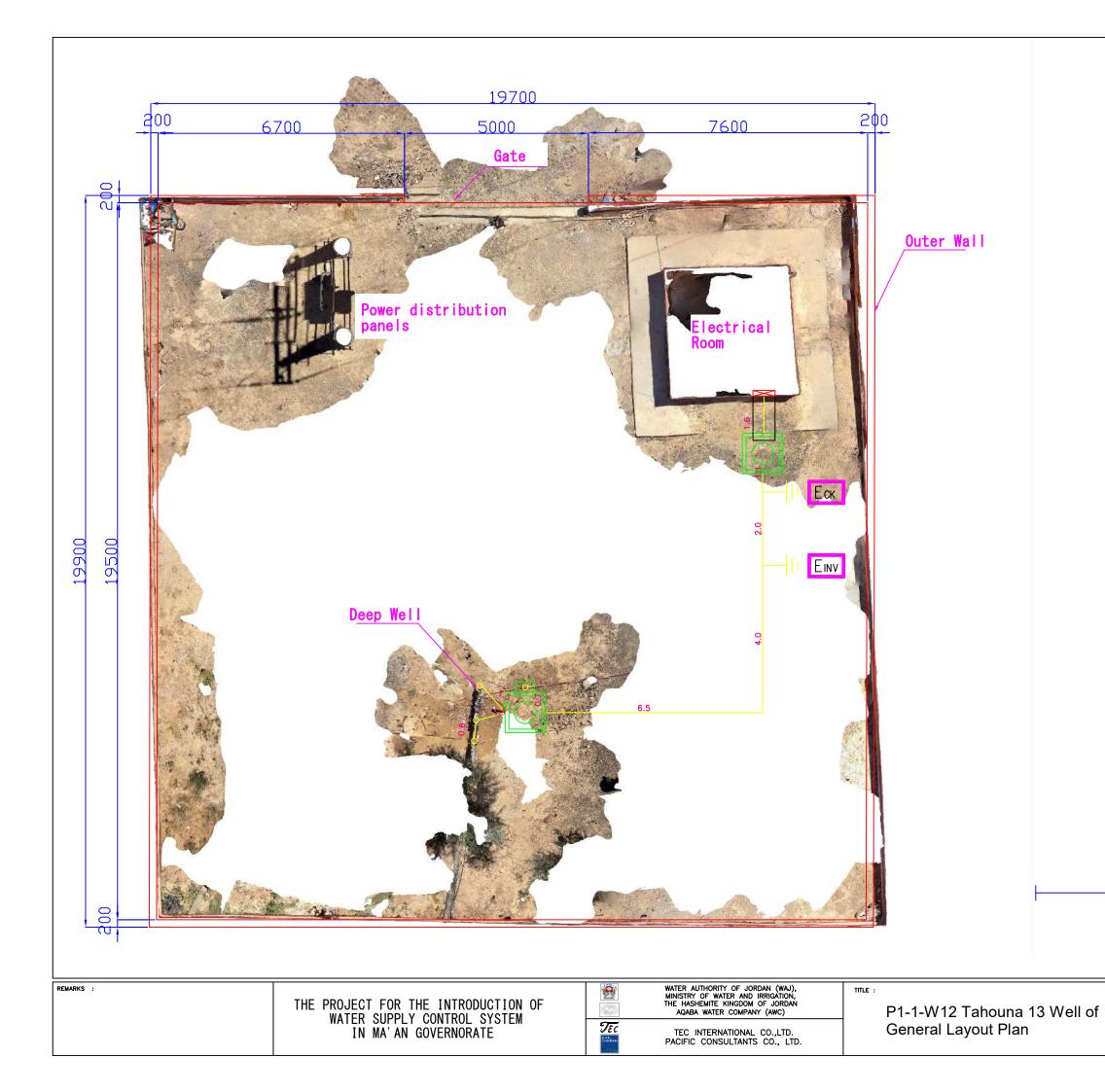




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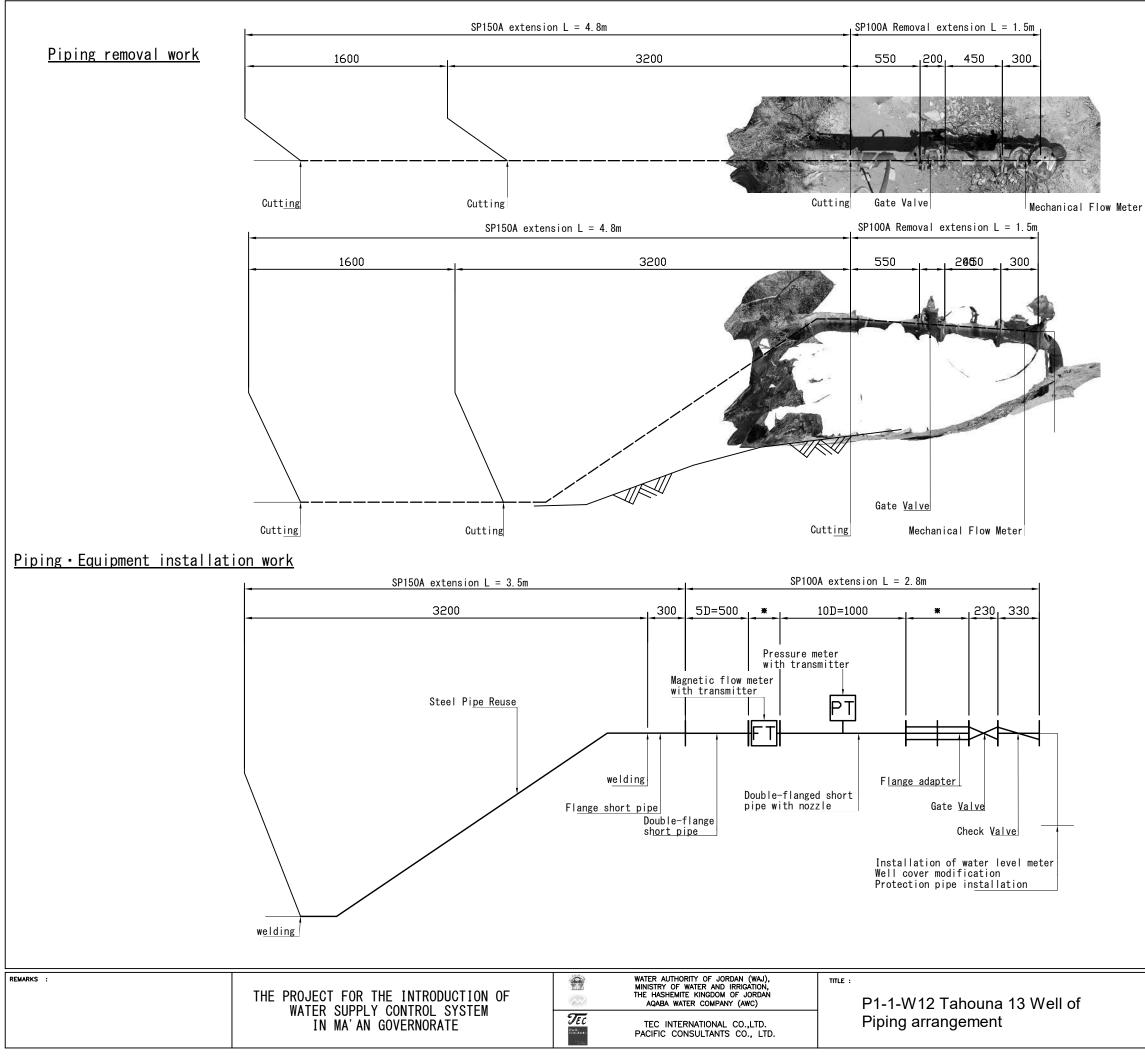


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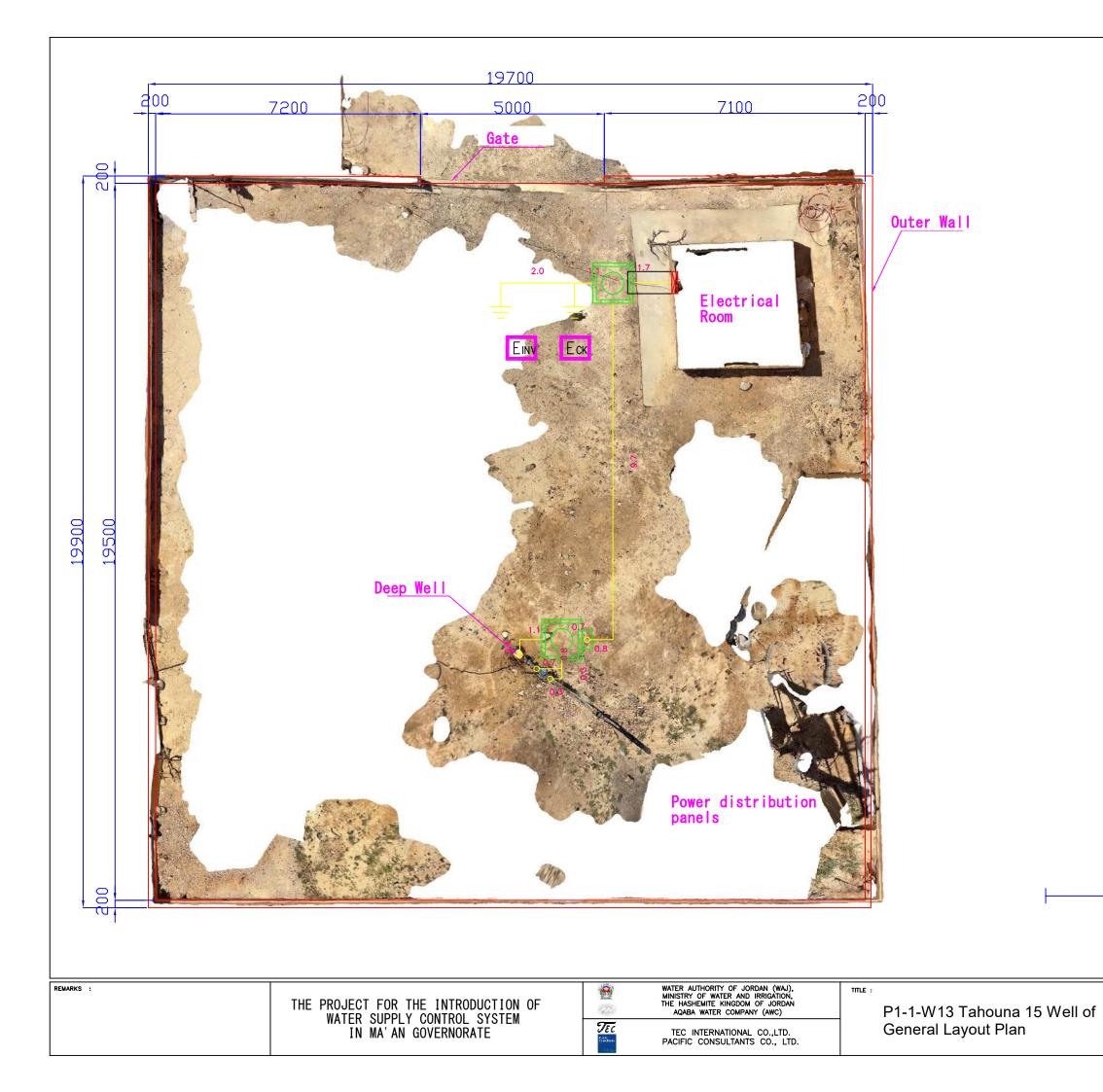


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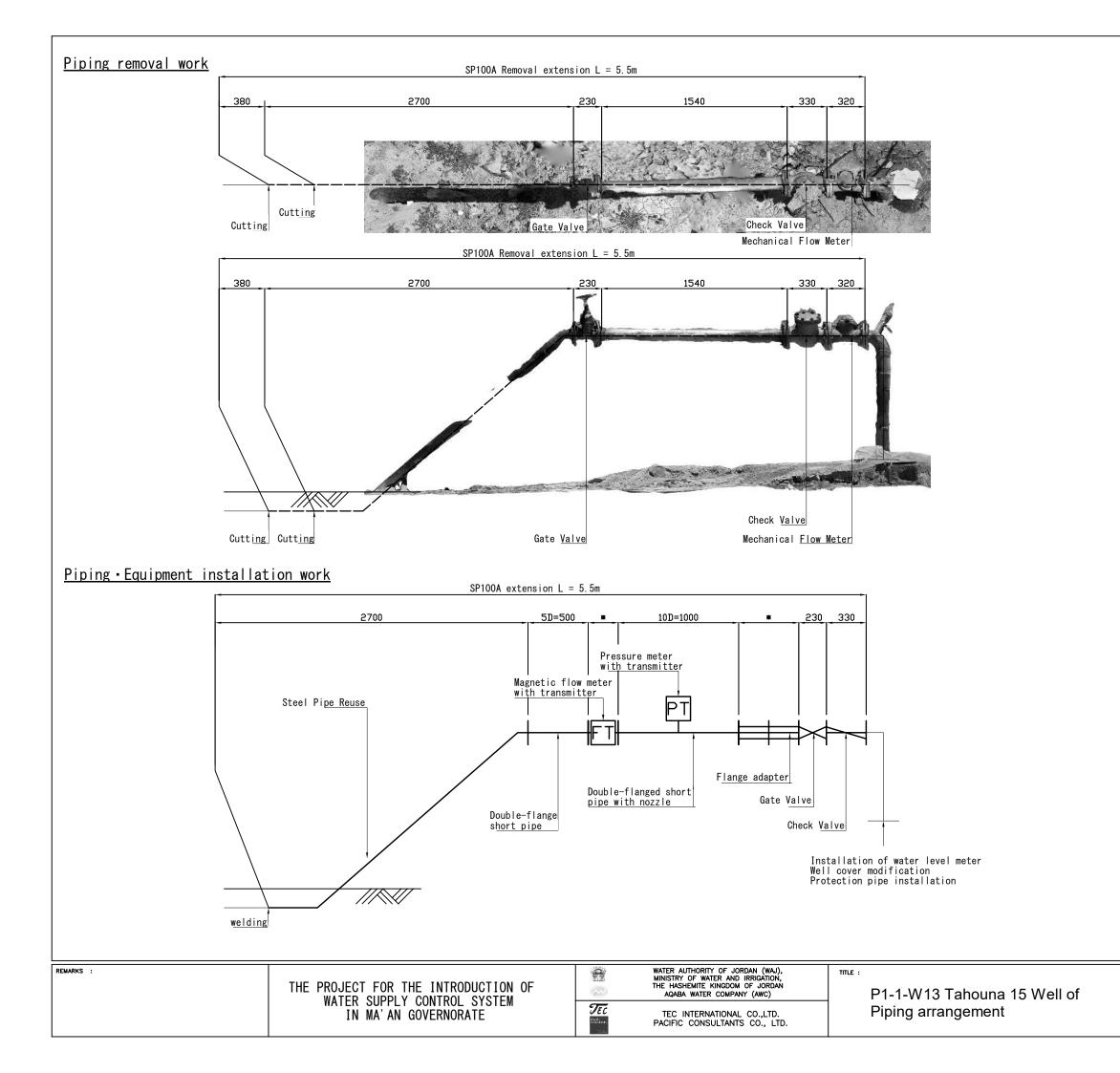


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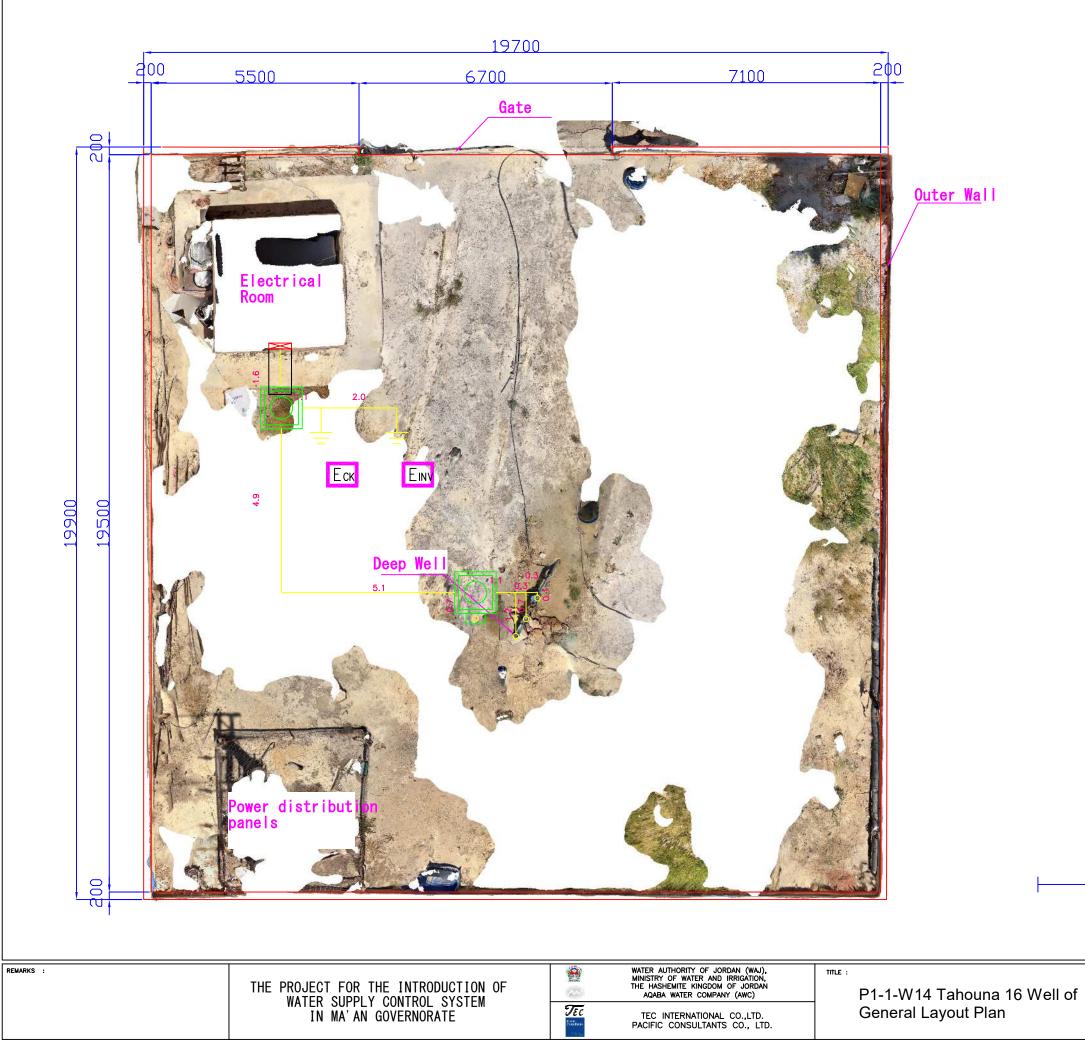


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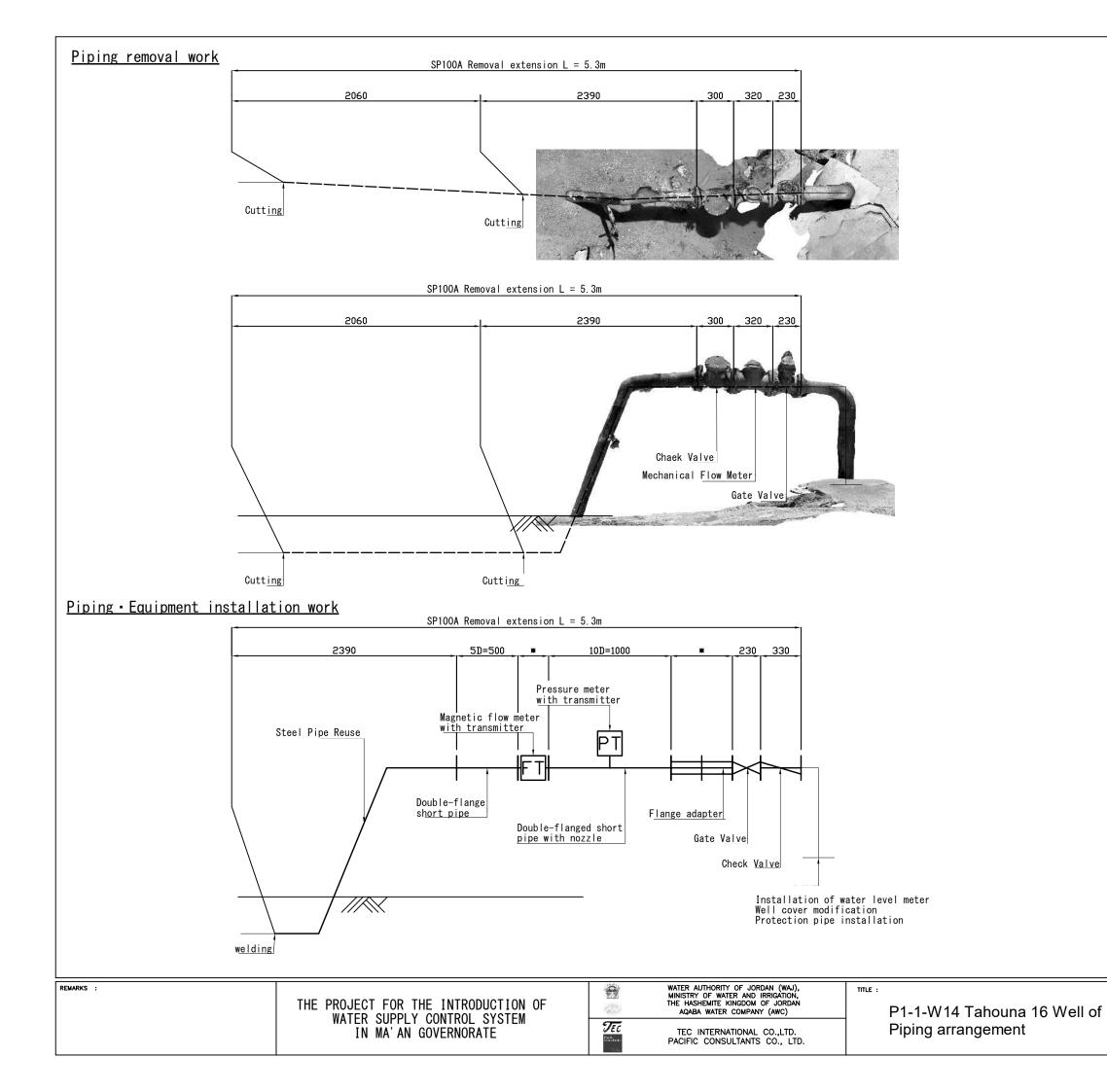


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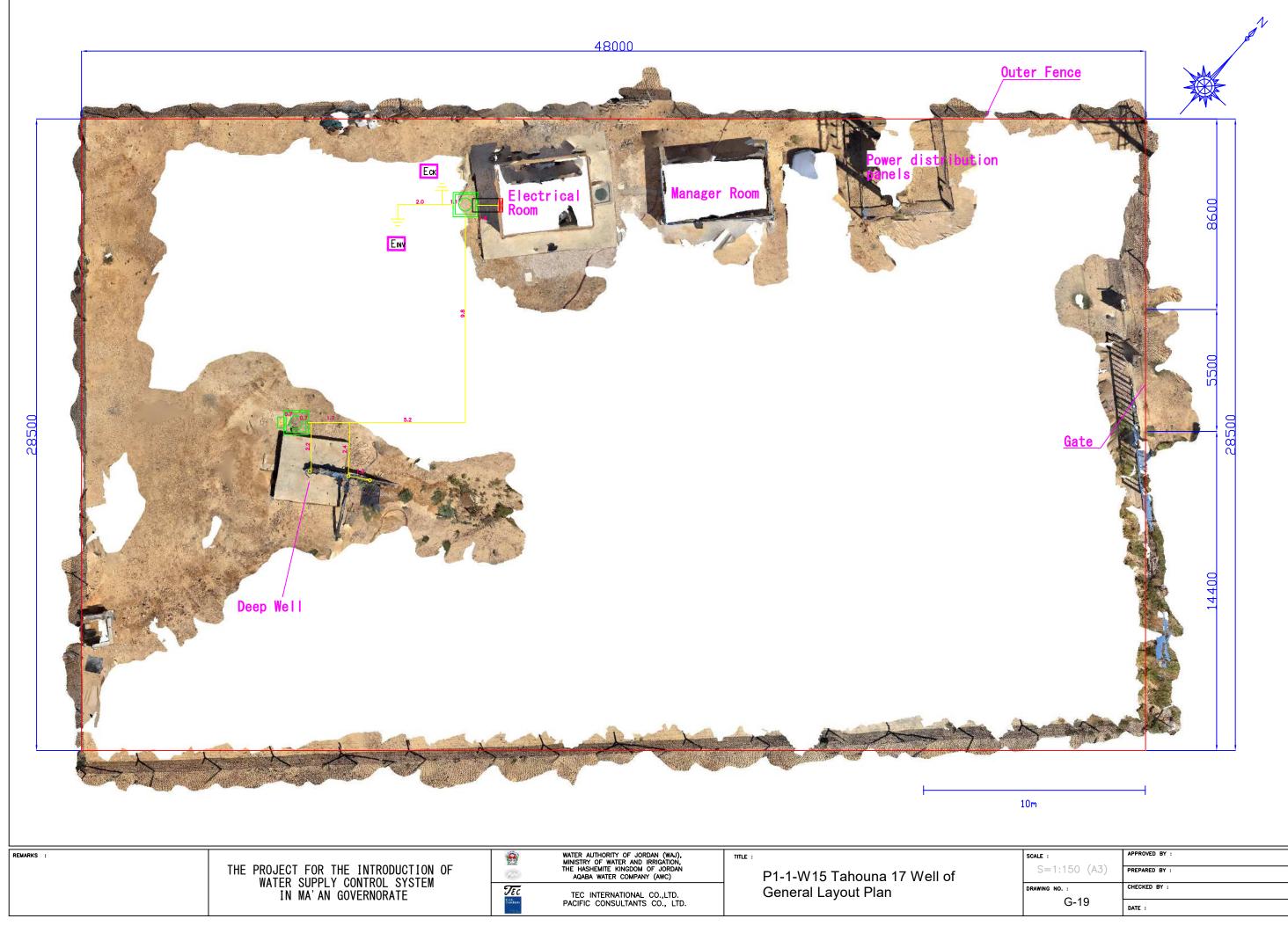


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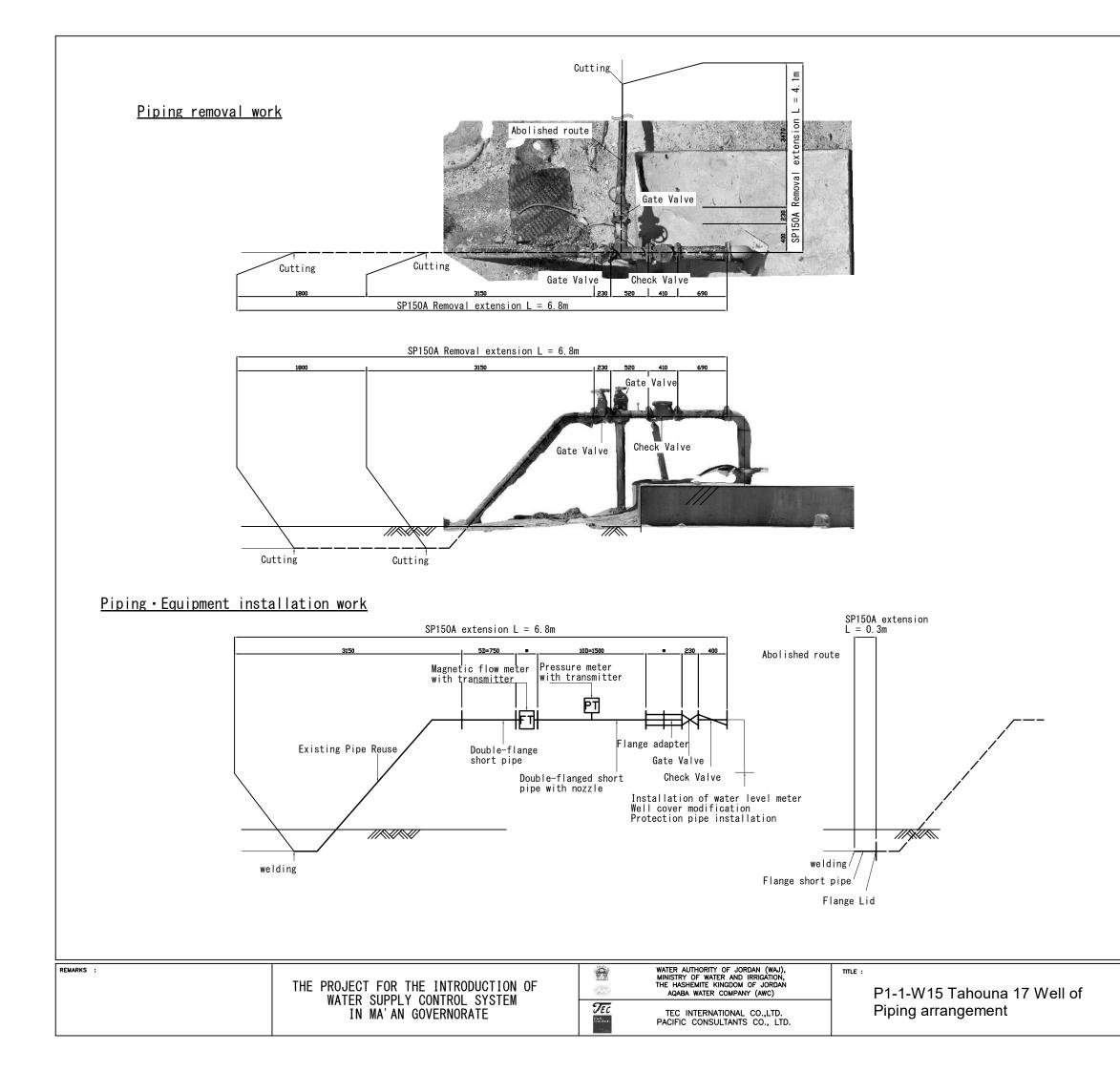
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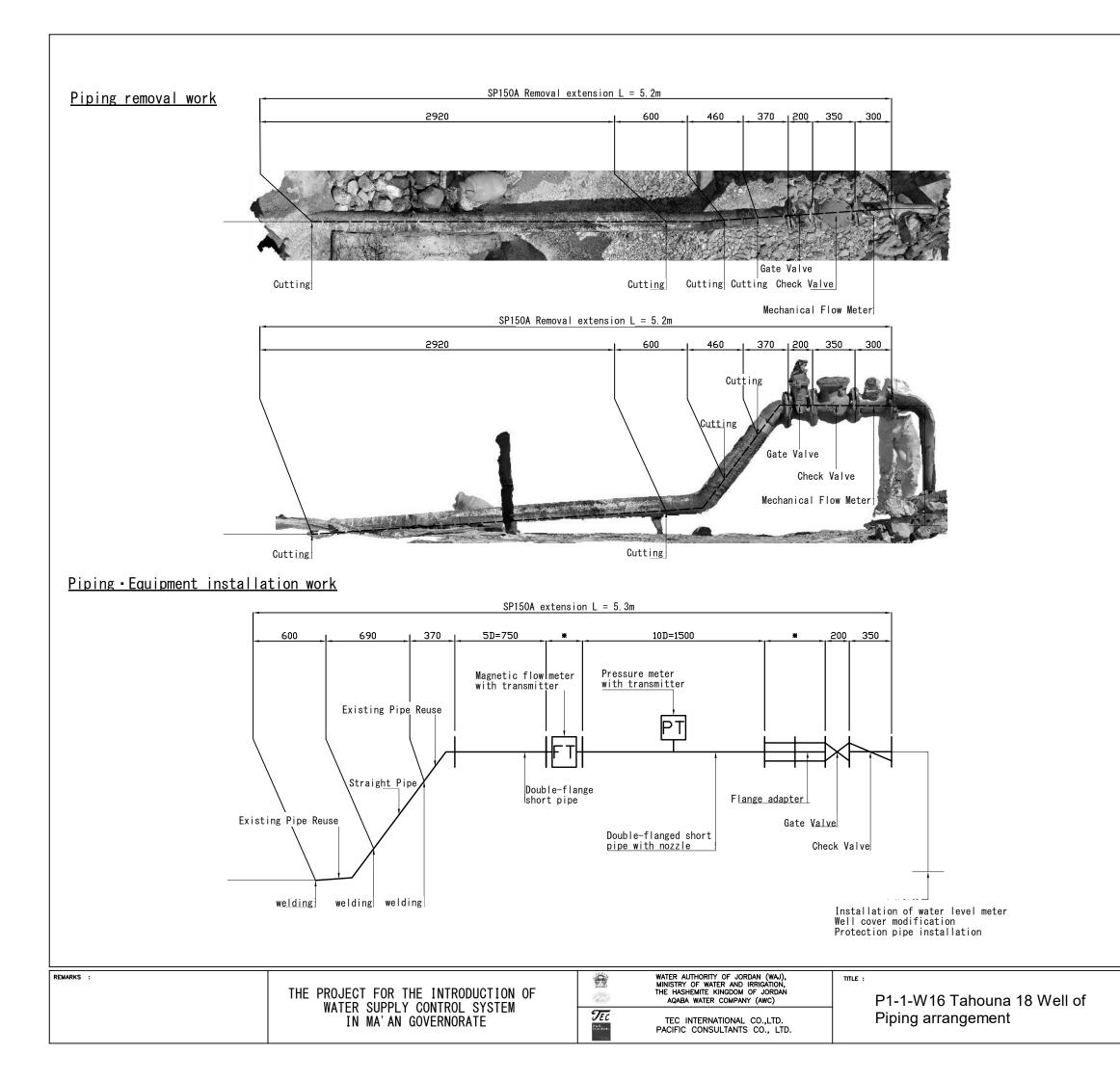
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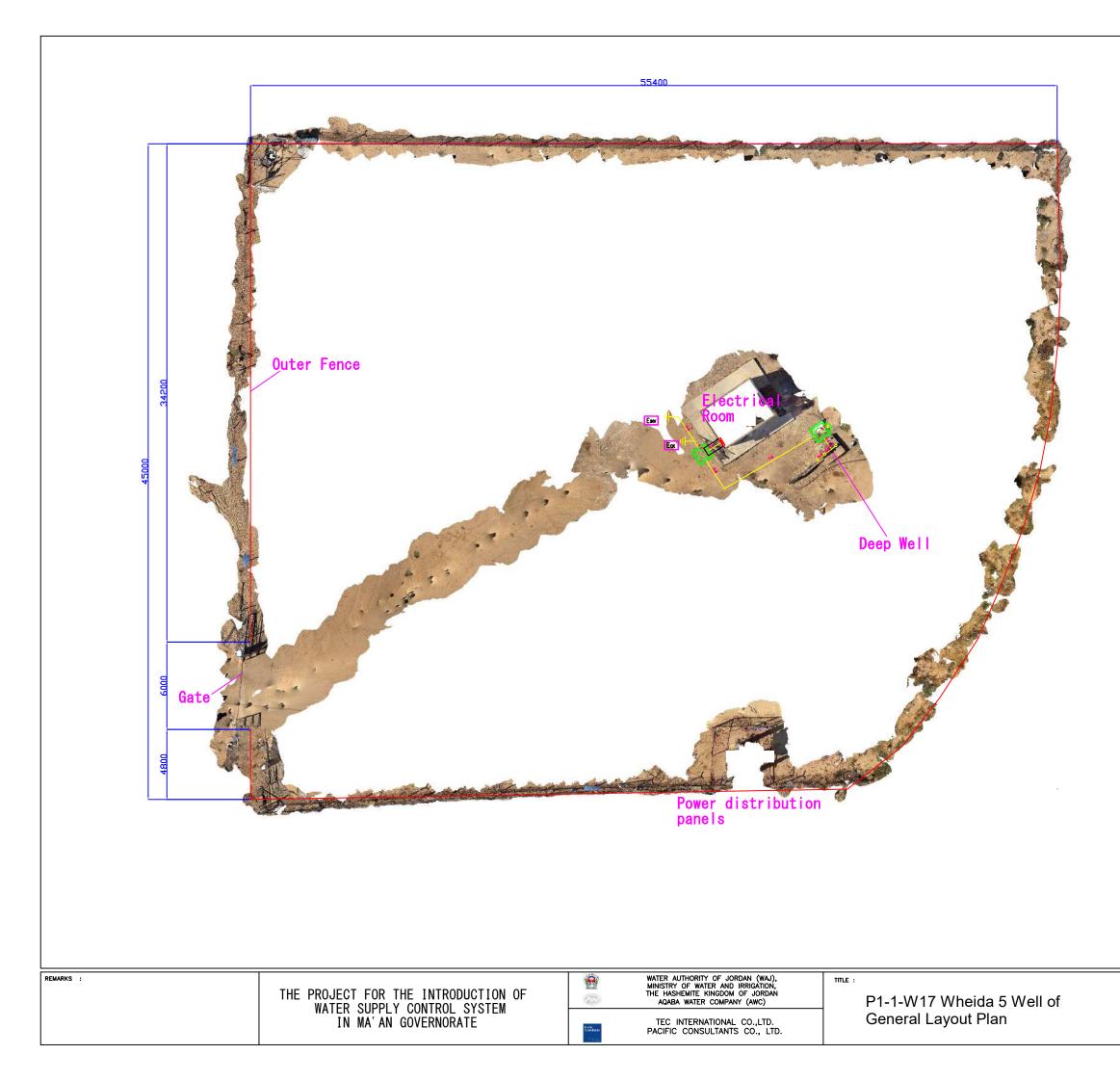
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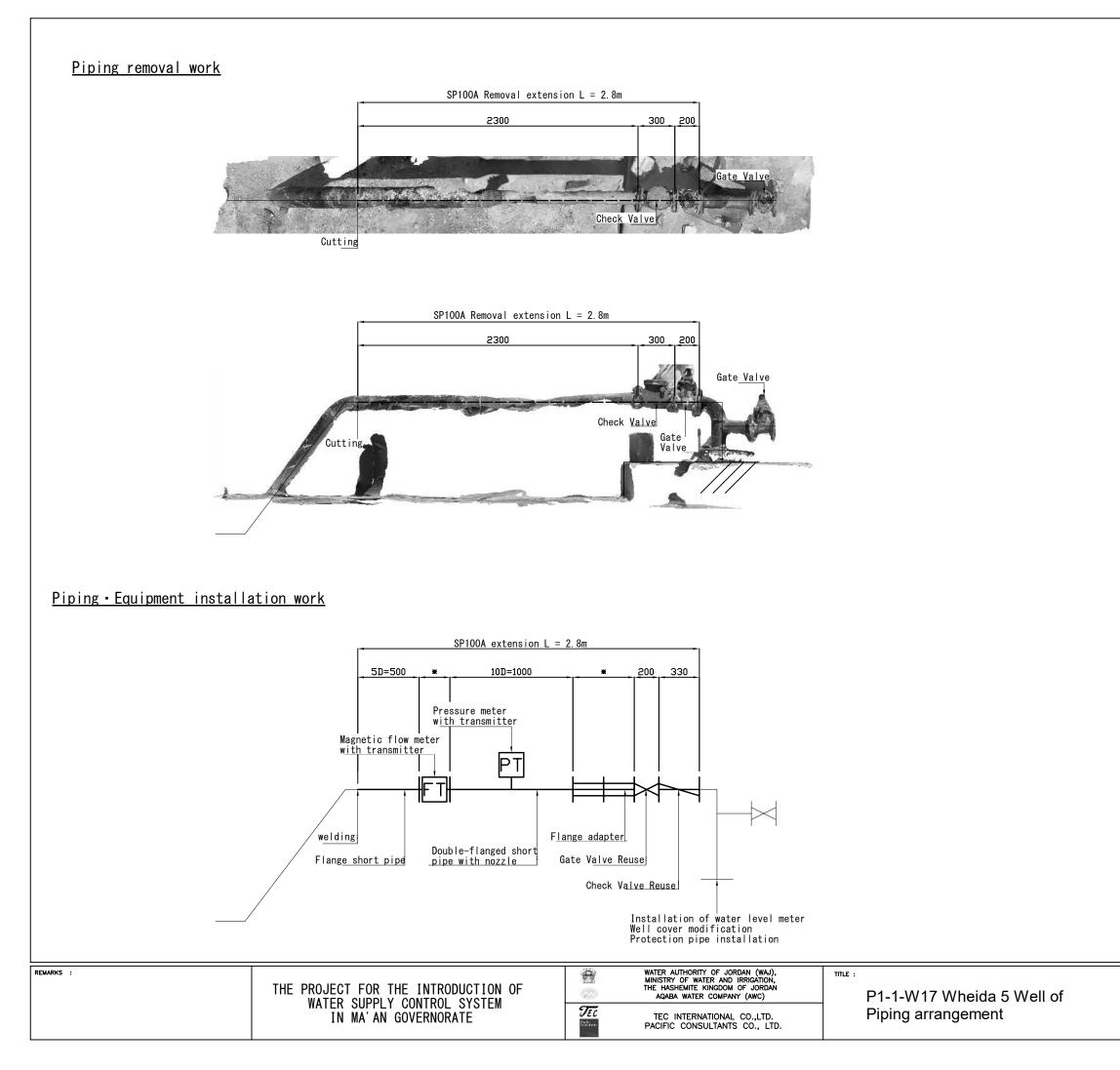
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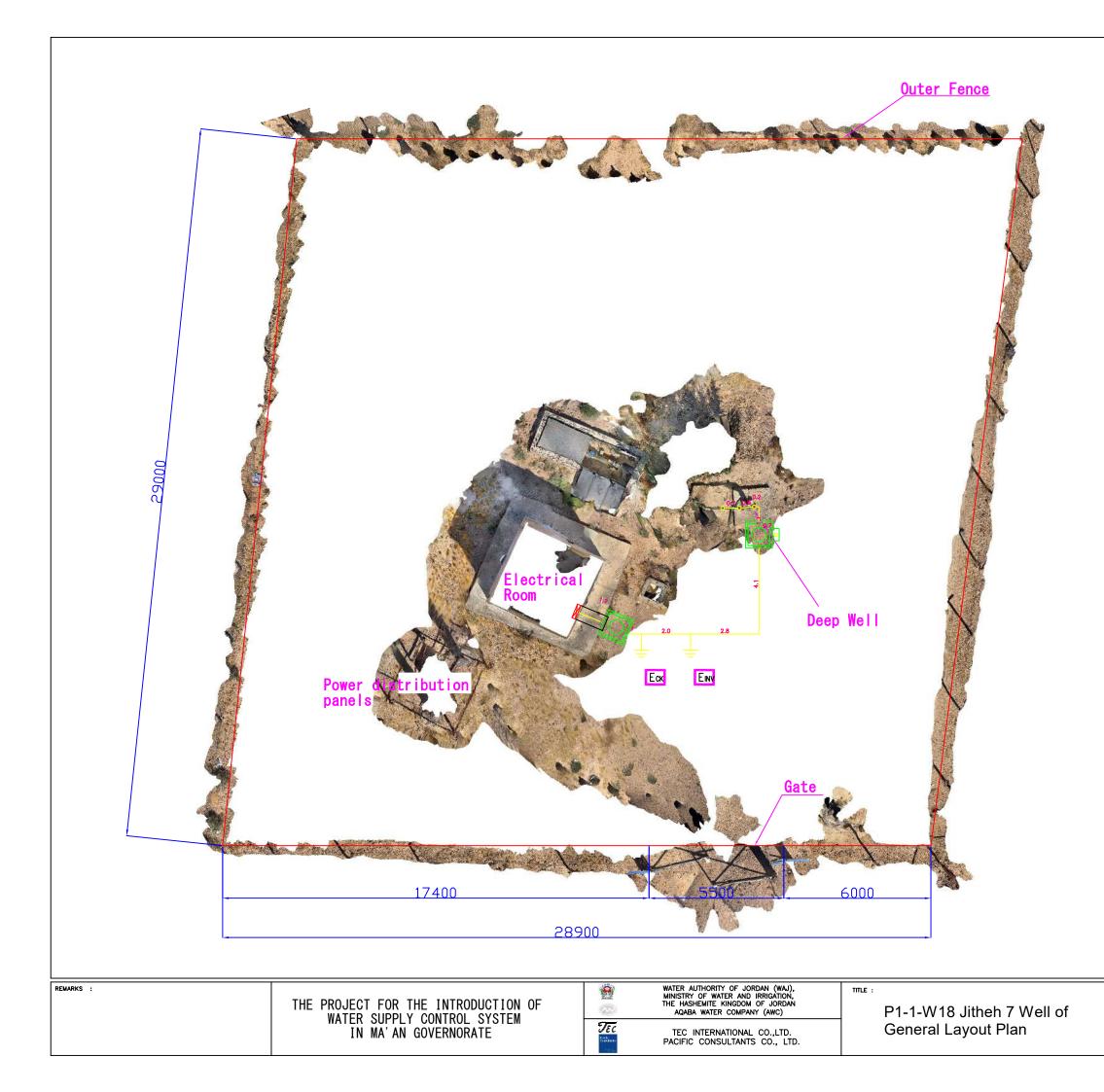
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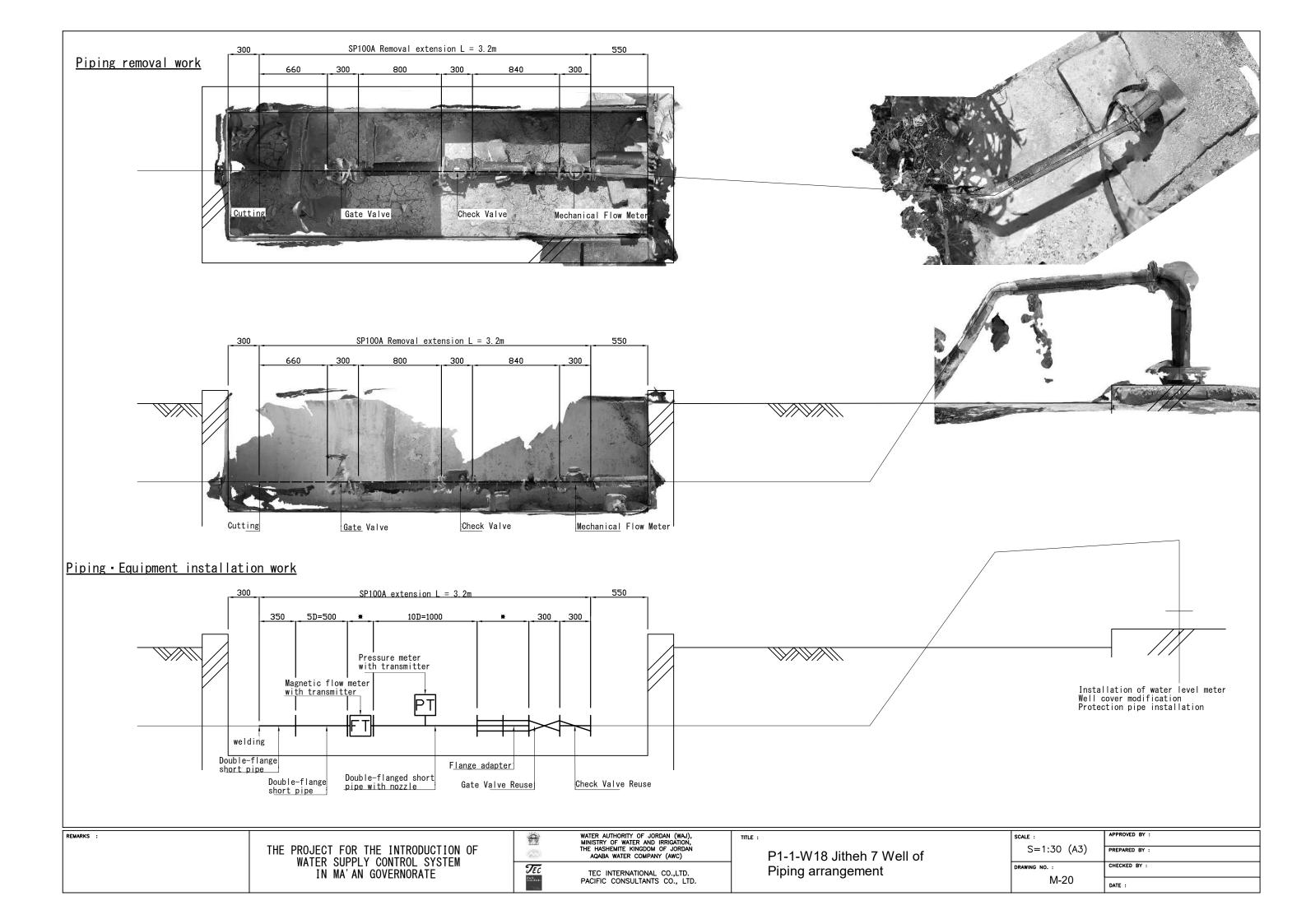


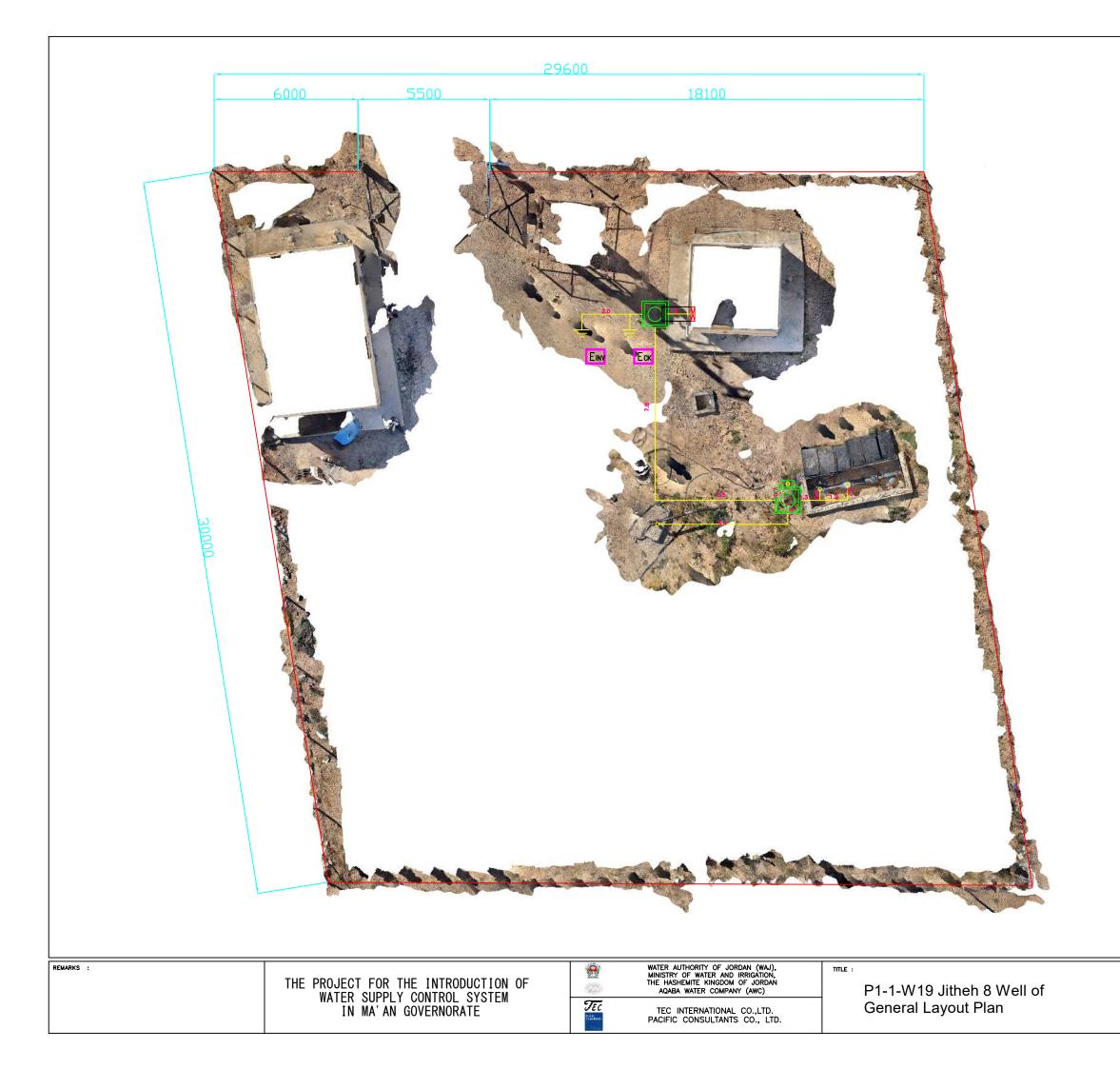
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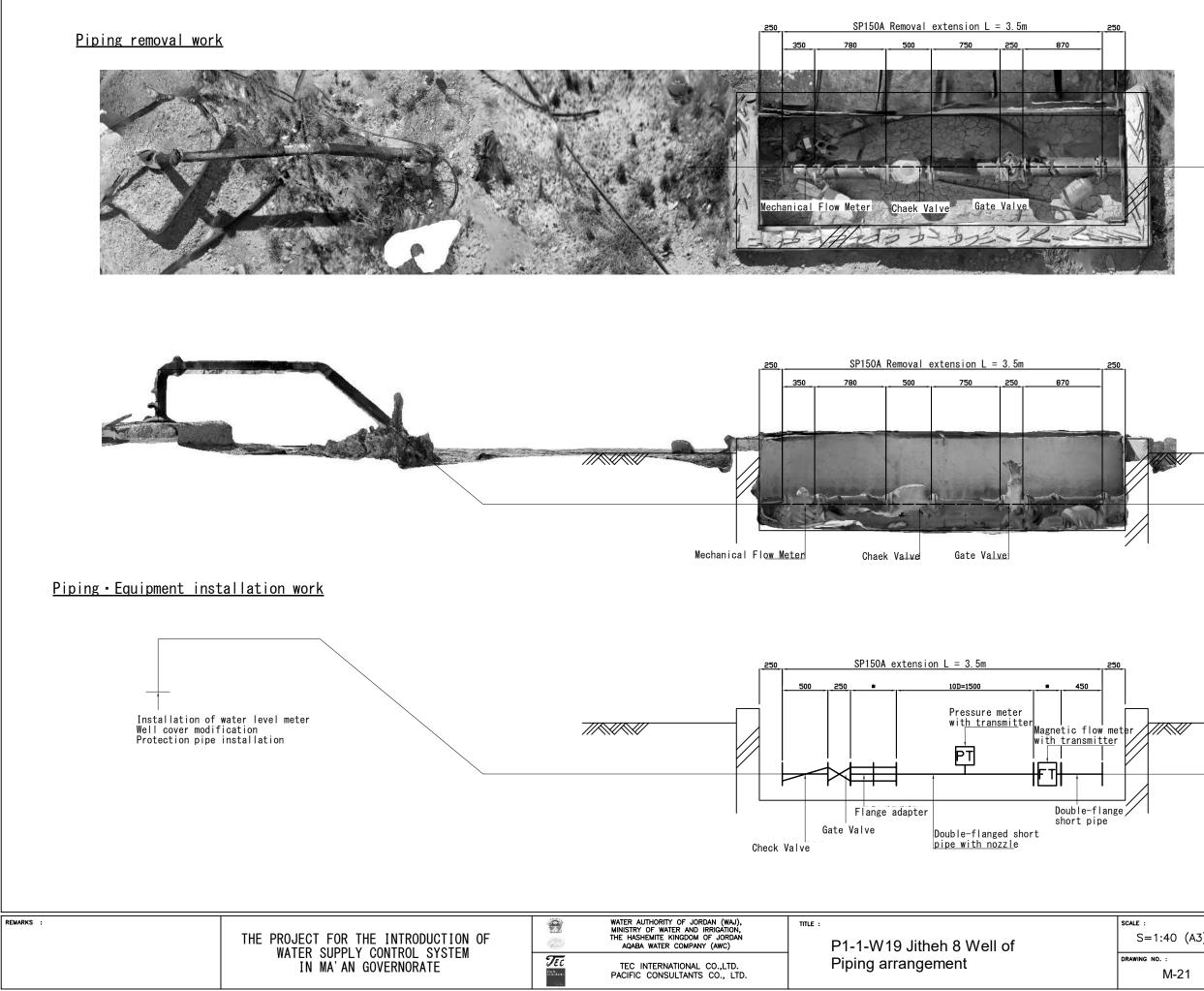




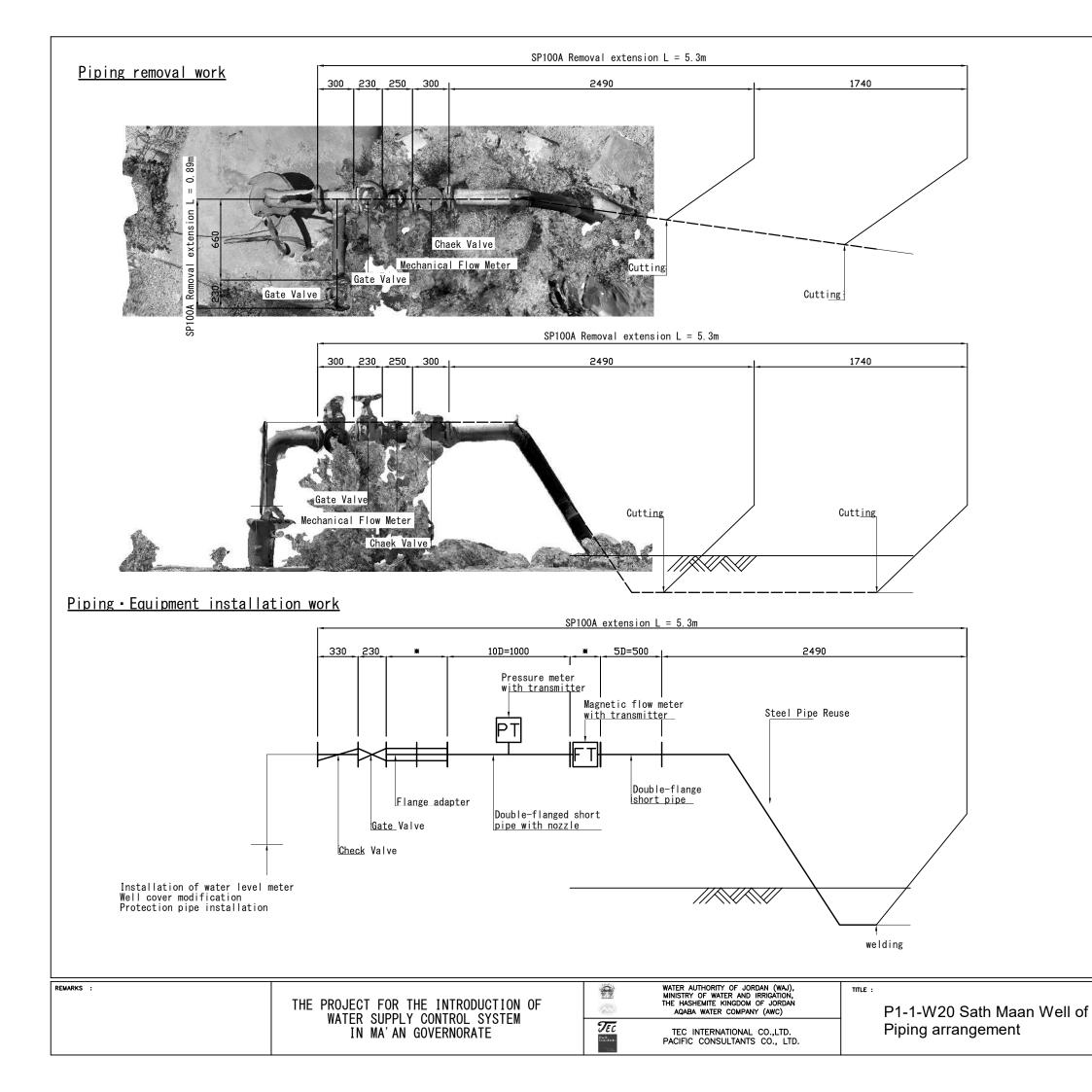


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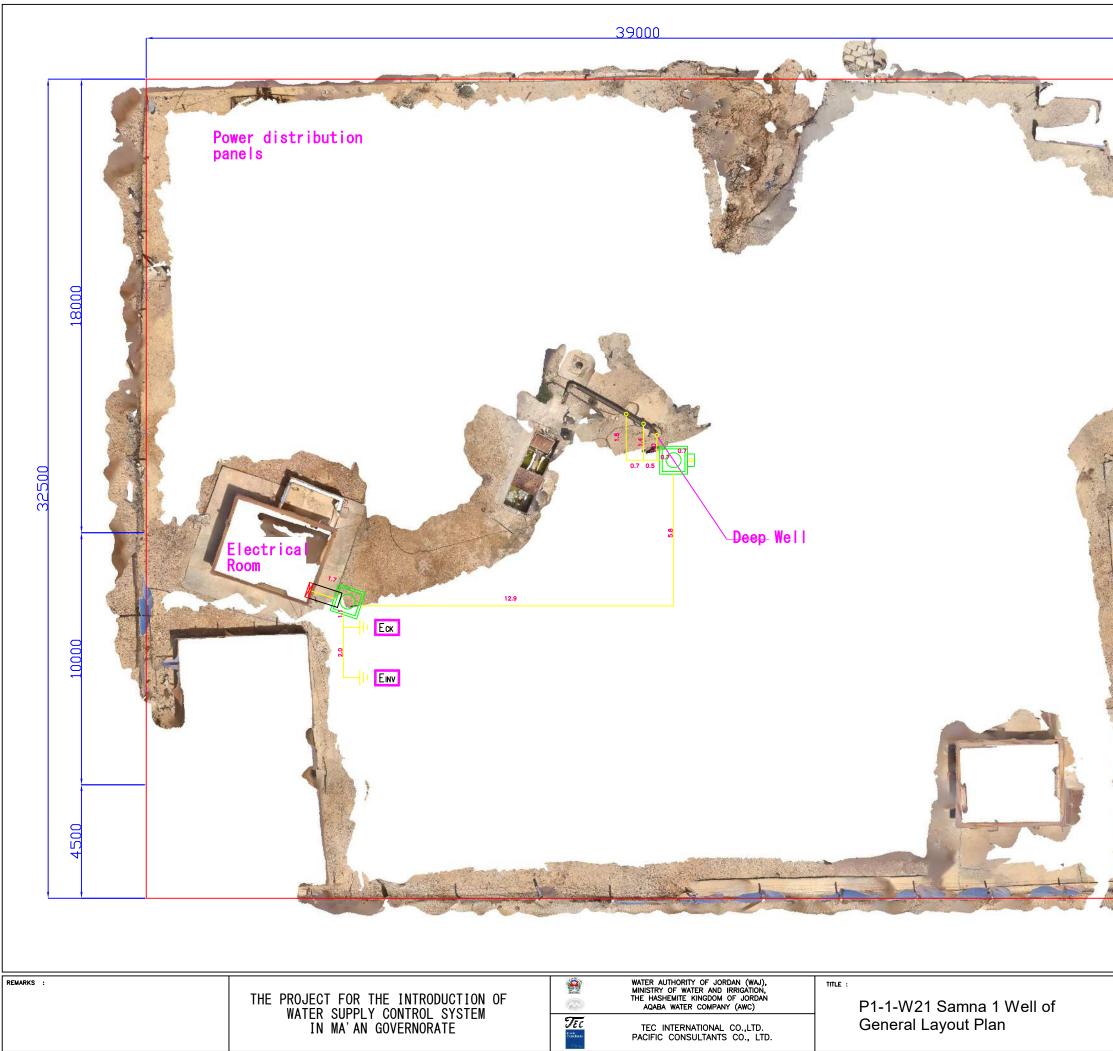
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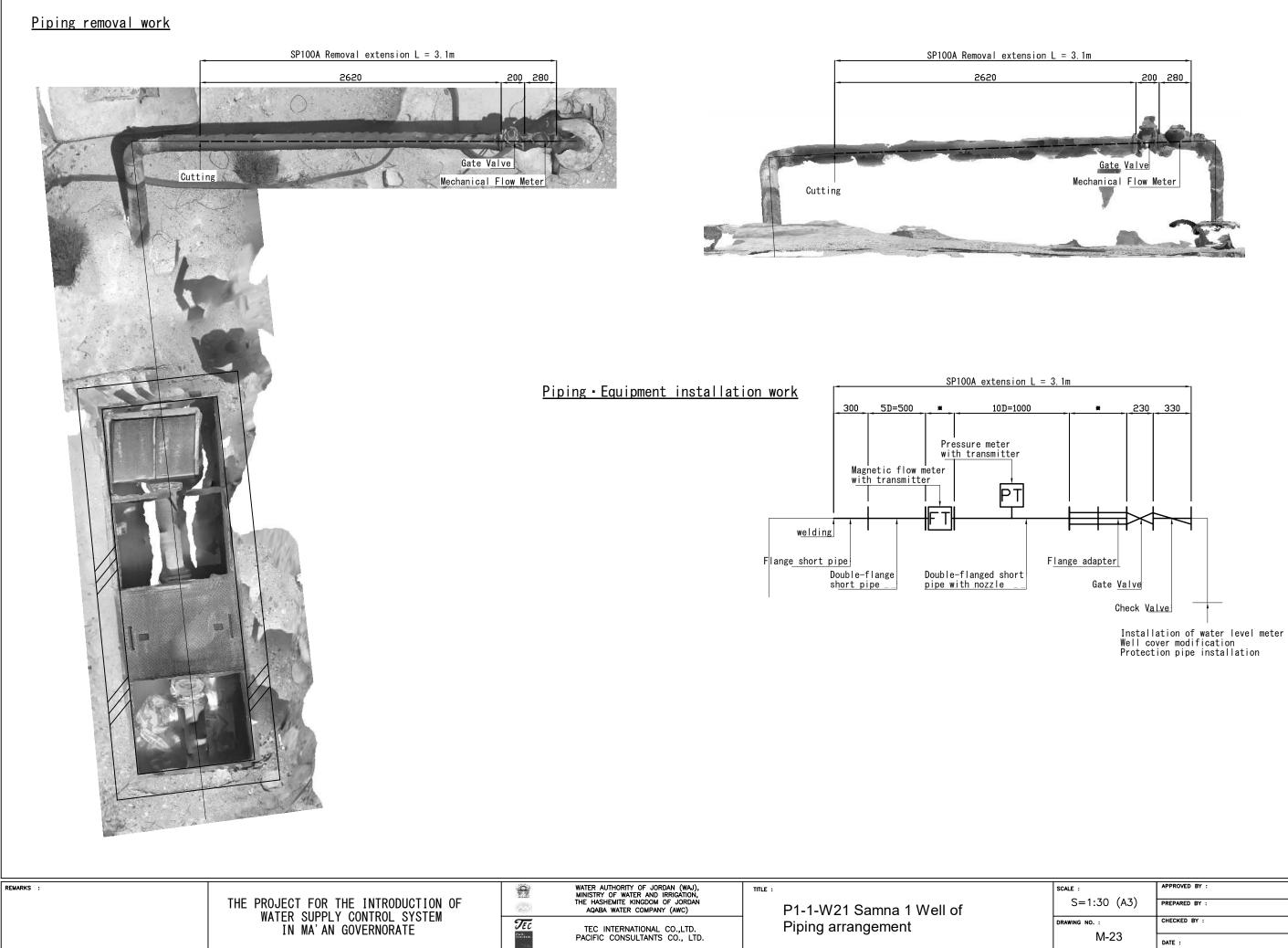


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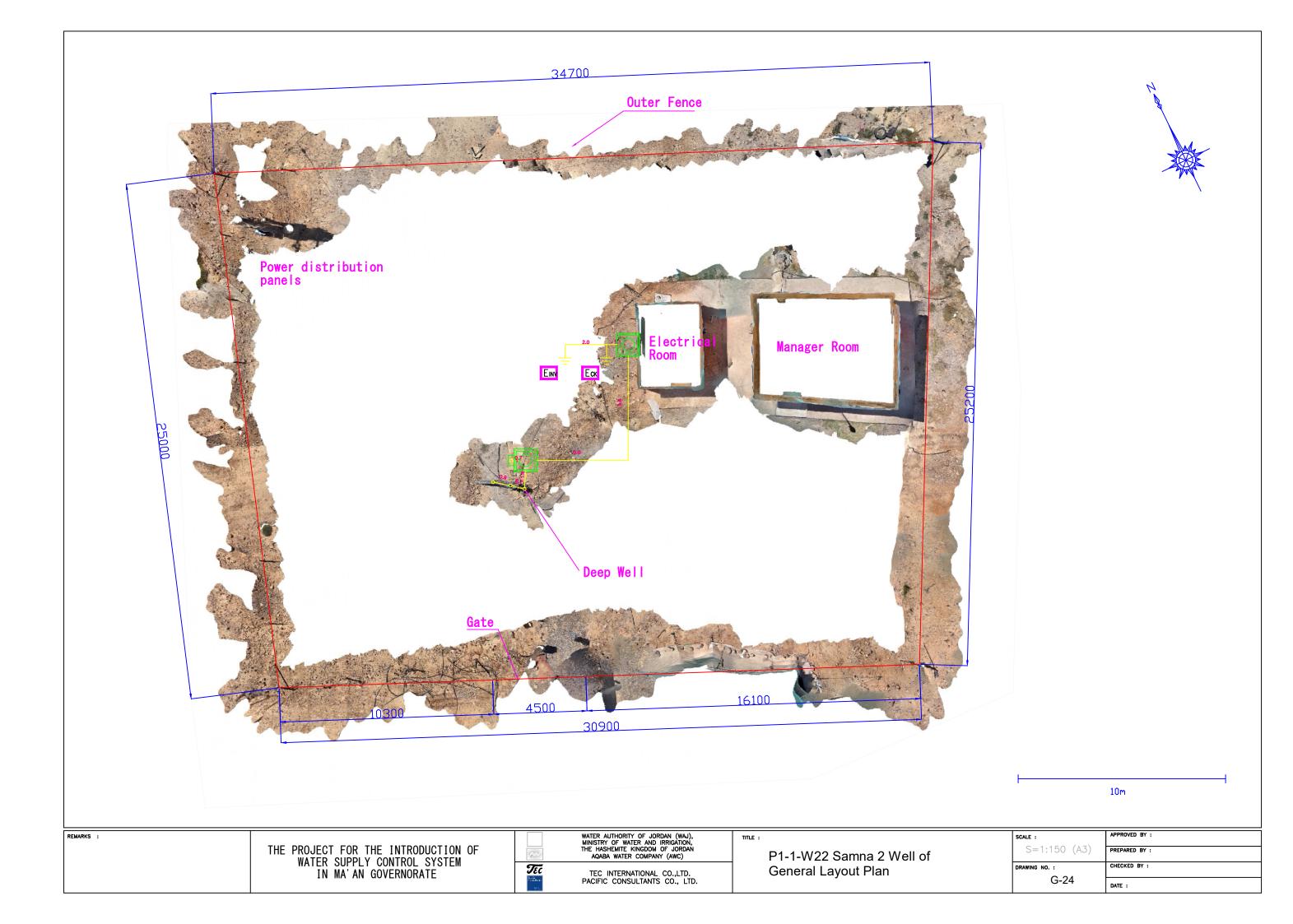


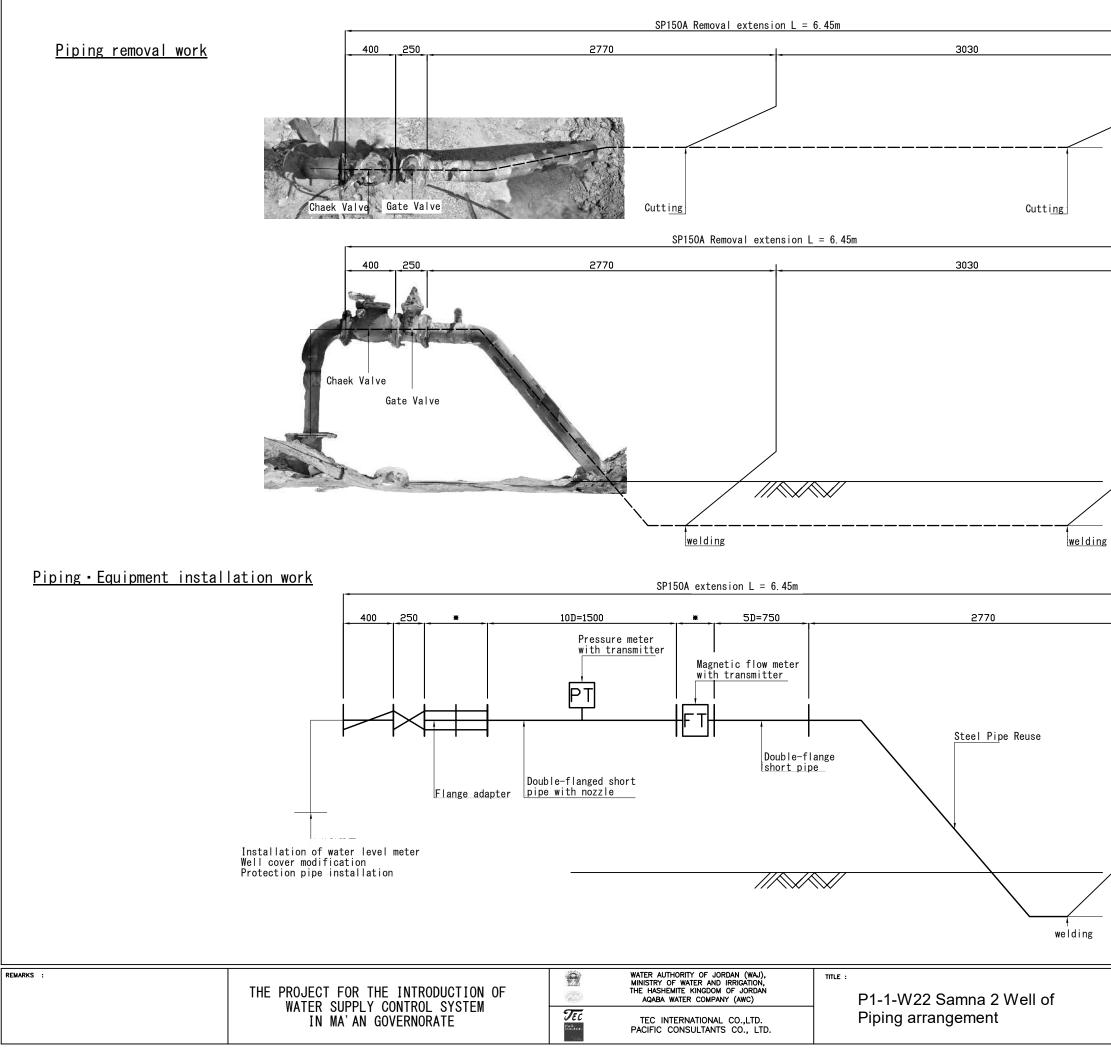
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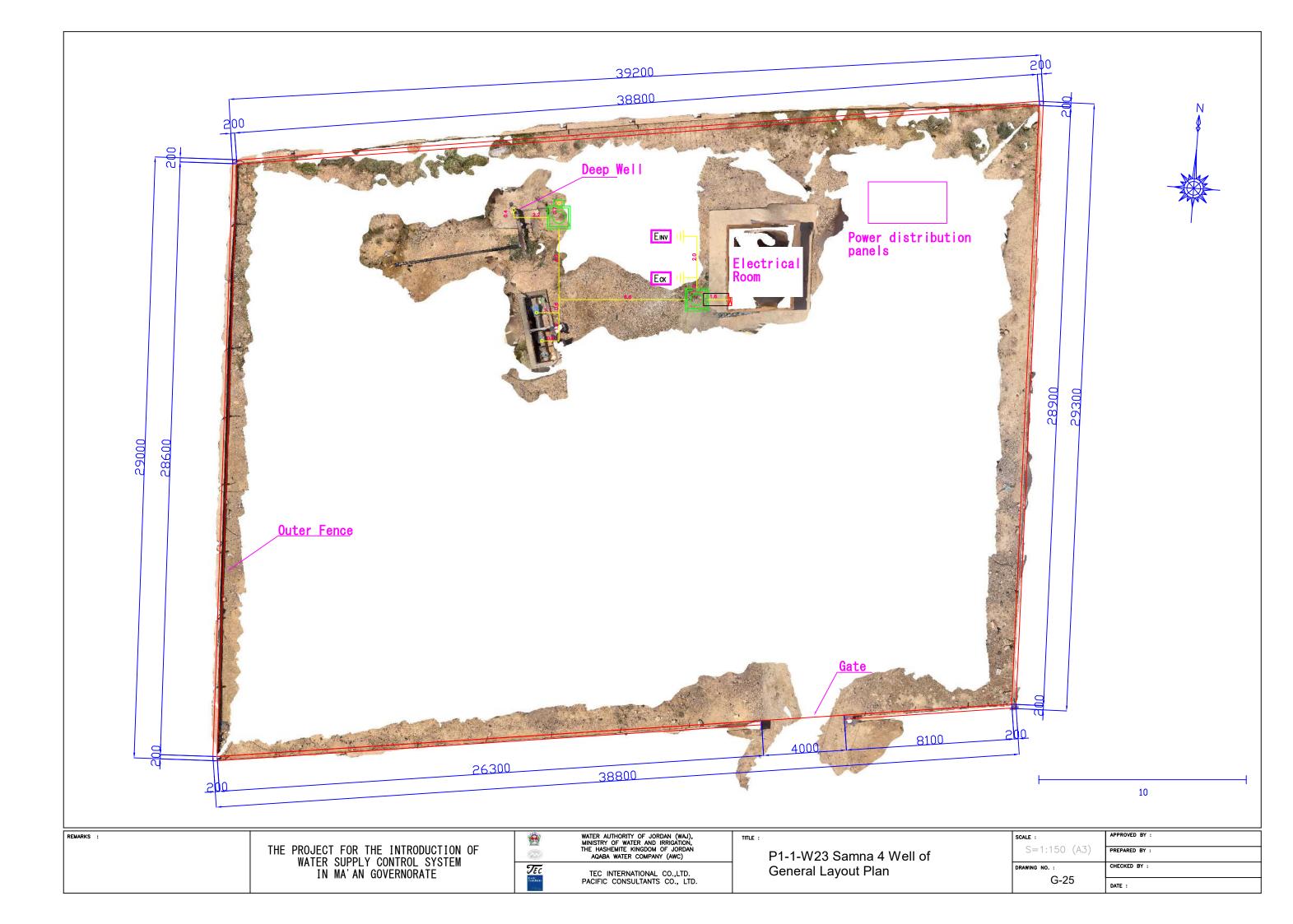


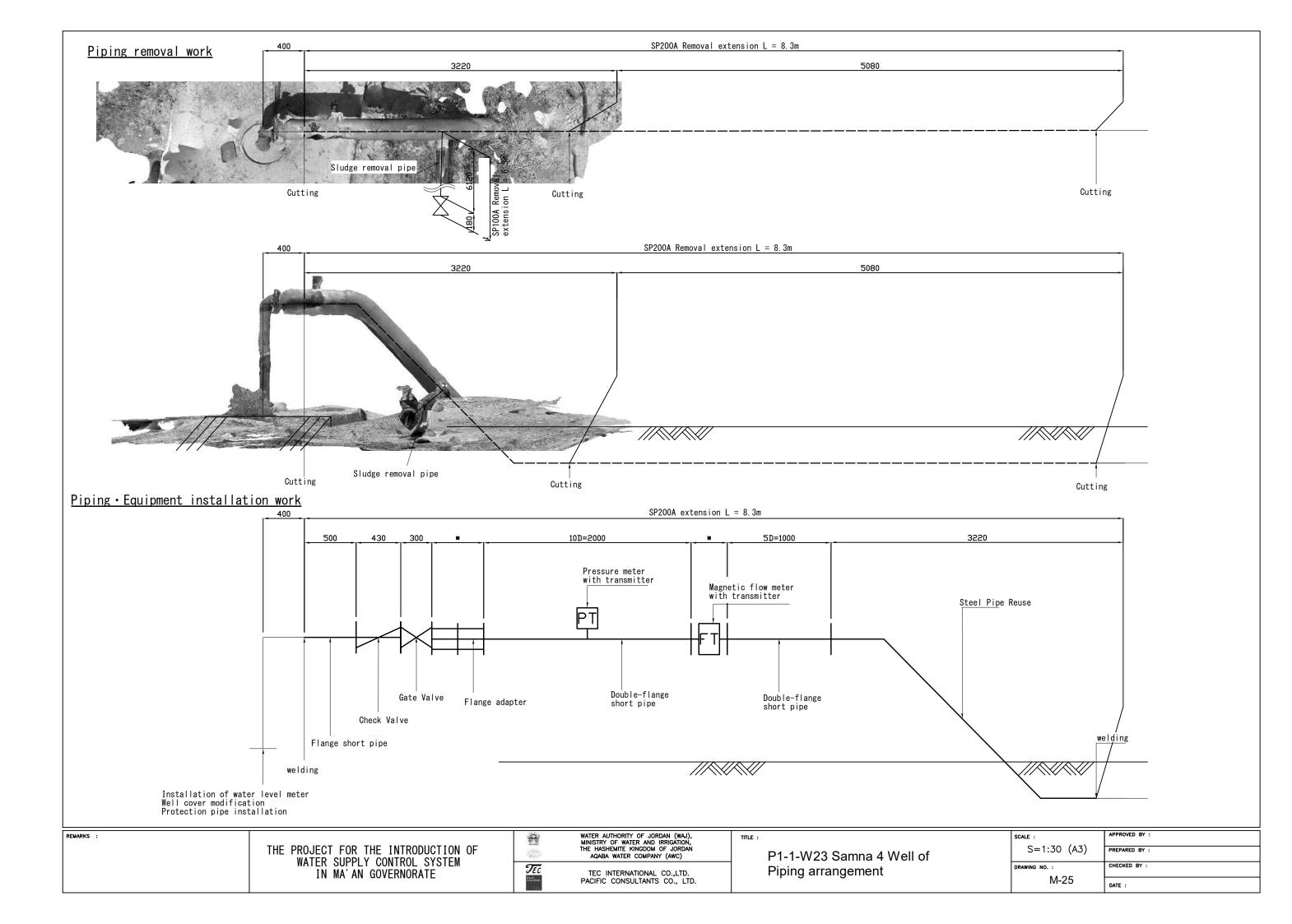
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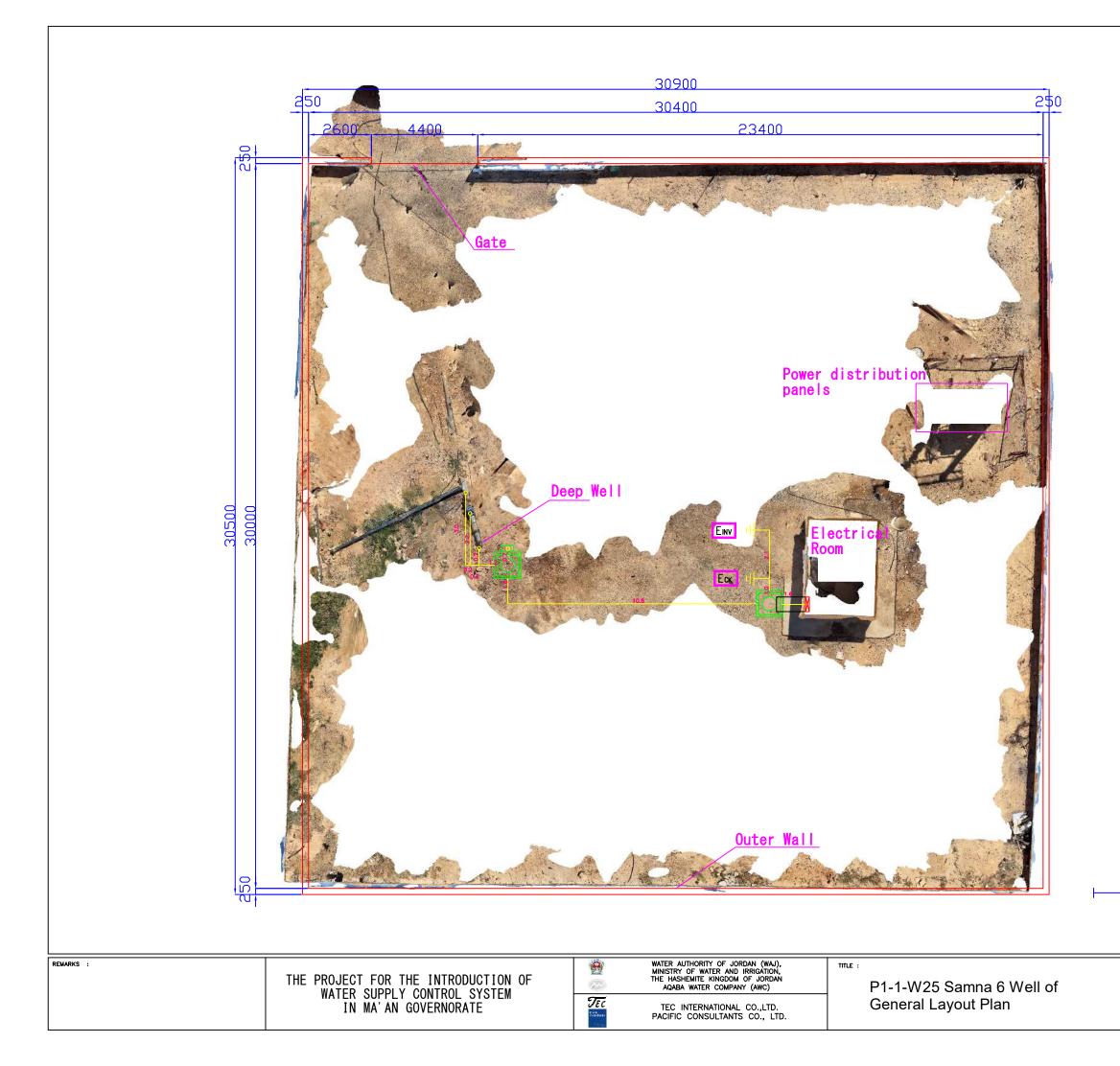




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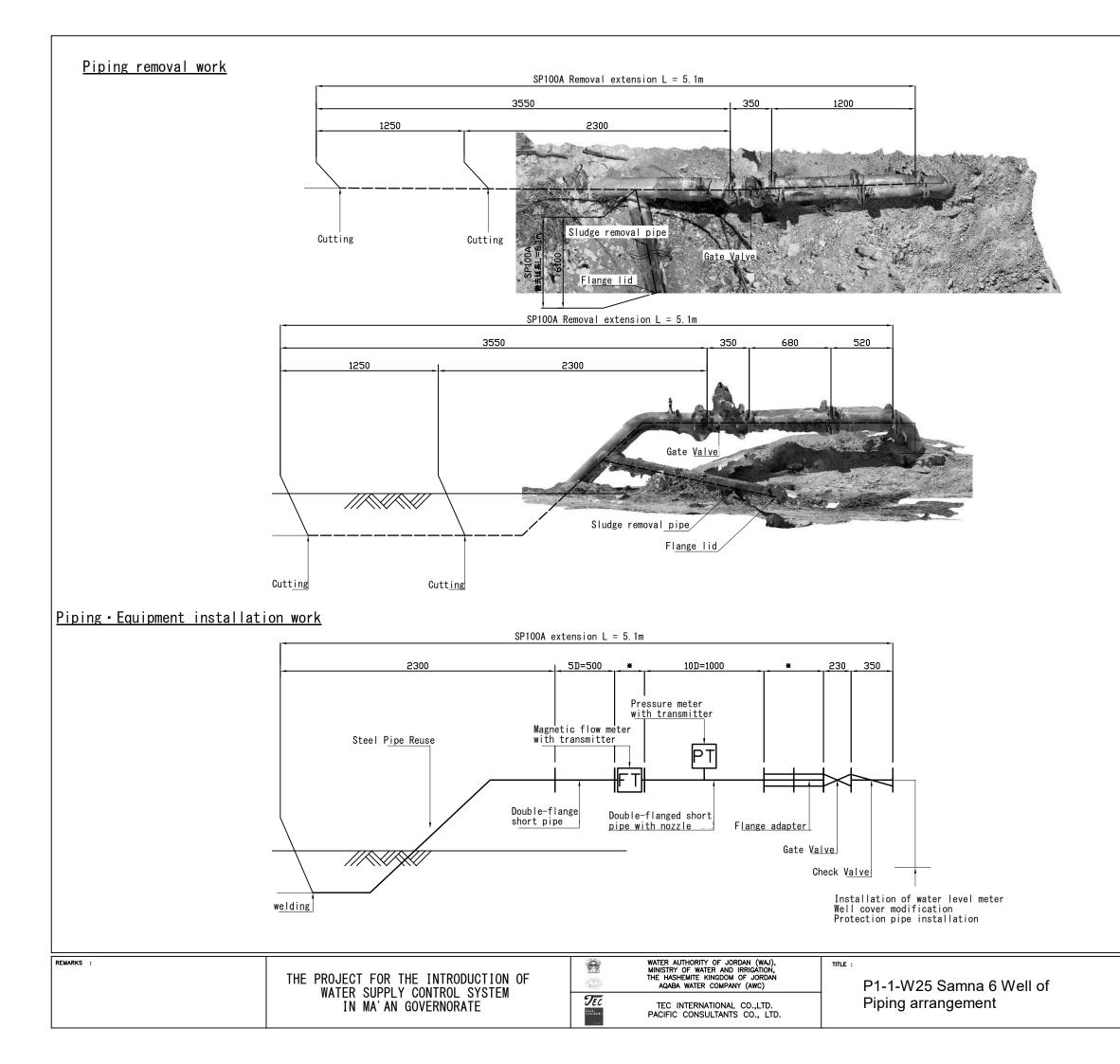




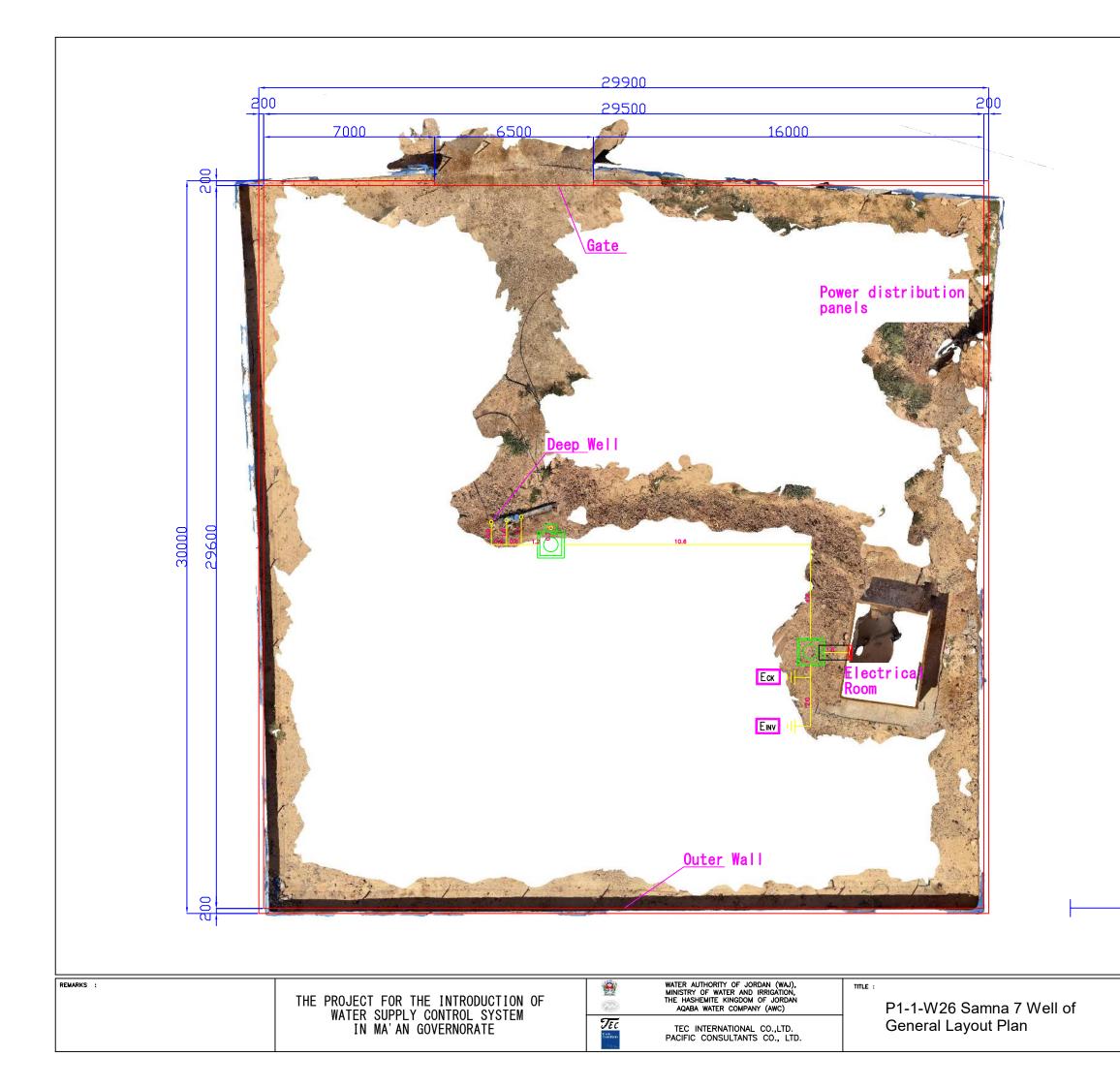


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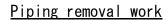


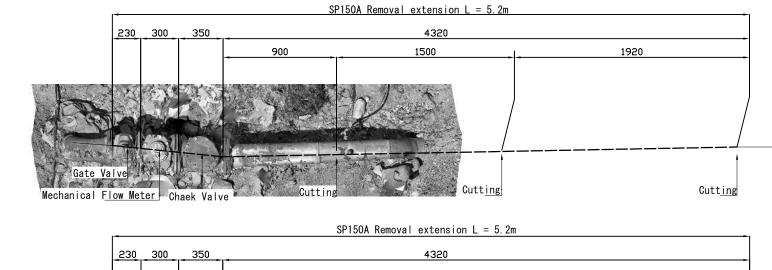


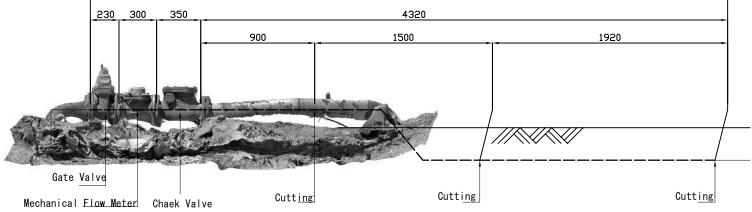
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M-26	DATE :



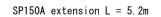
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G-27	DATE :

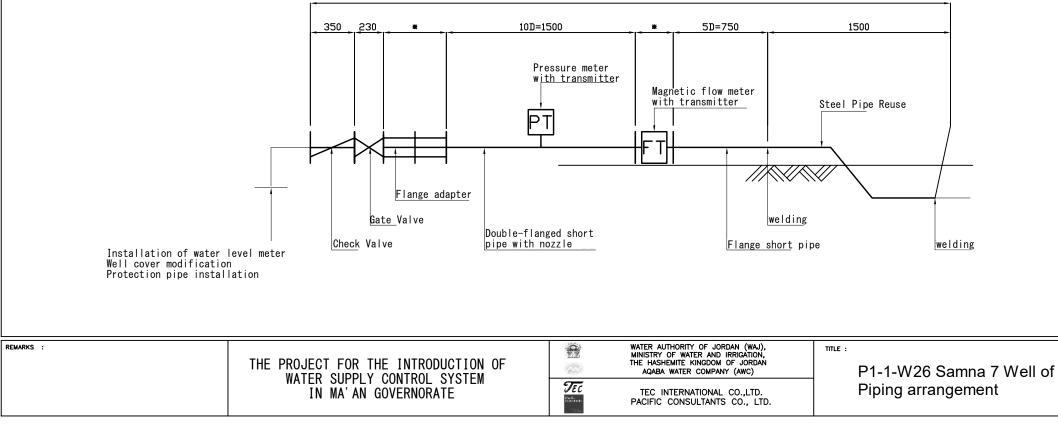




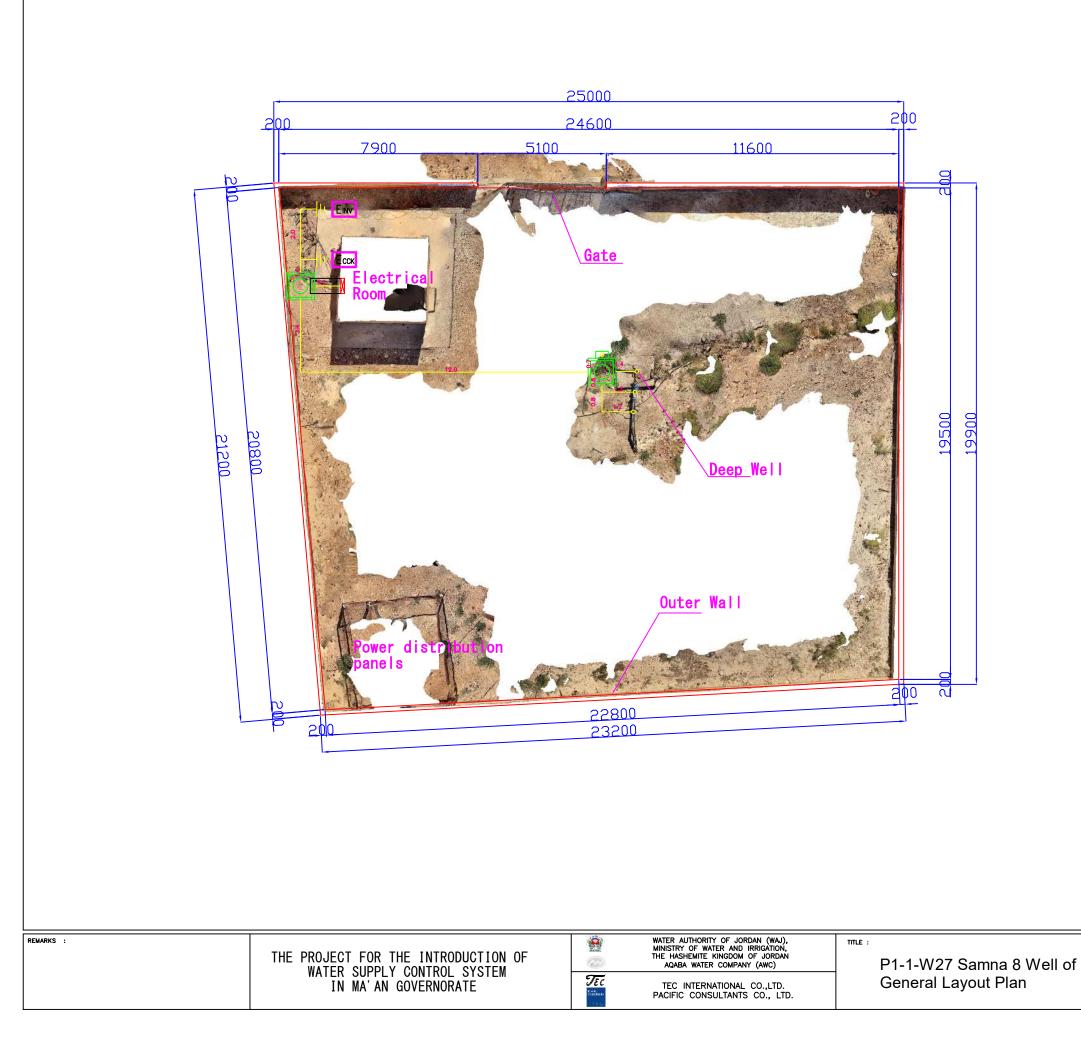


Piping · Equipment installation work

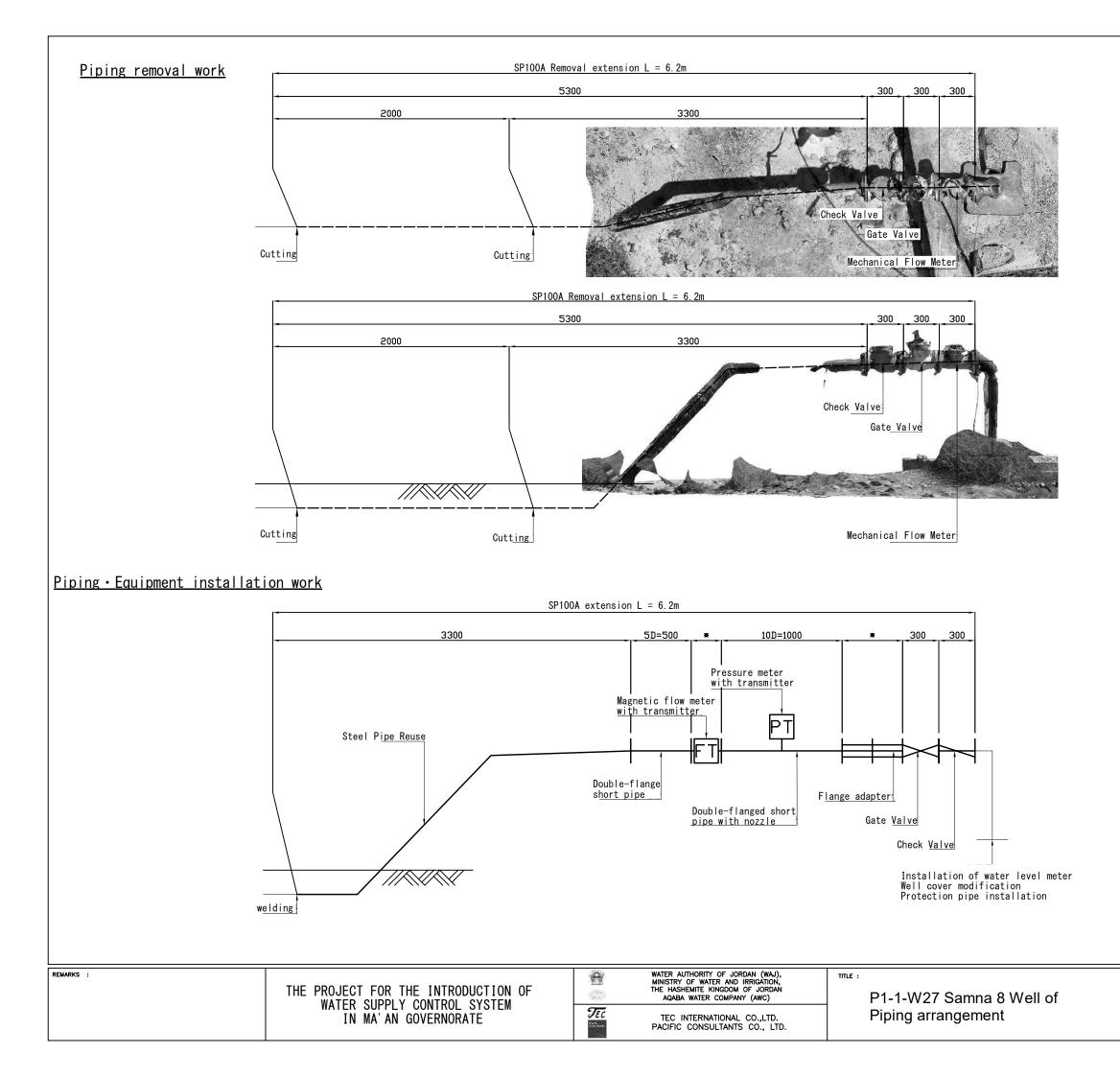




SCALE :	APPROVED BY :
S=1:30 (A3)	PREPARED BY :
DRAWING NO. :	CHECKED BY :
M-27	DATE :



SCALE :	APPROVED BY :
S=1:150 (A3)	PREPARED BY :
DRAWING NO. :	CHECKED BY :
G-28	DATE :



SCALE :	APPROVED BY :
S=1:30 (A3)	PREPARED BY :
DRAWING NO. :	CHECKED BY :
M-28	DATE :