

NOTES

LEGEND

REFERENCE DRAWING DRG. No.

KEY PLAN

DOCUMENT TITLE: ESD BLOCK DIAGRAM

NOI	DEC.2022	JFA	Upride	Upride	Upride	Upride	** **
DOO	MAY.2022	IPC	Maple	Maple	Maple	Maple	** **
REV.	DATE	FOIIS	PREP.	CHK.	APP.	ADT.	

PROJECT NAME: BINAQ OILFIELD DEVELOPMENT/SURFACE FACILITIES
GAS COMPRESSOR STATION

PROJECT NO.: 971020

EPC CONTRACTOR: HED/PEC CONTRACTOR (CC)
PETROBRAN DEVELOPMENT COMPANY

HERBMAN ENERGY - DESIGN & INSPECTION
HERBMAN ENERGY OPERATIONS

DRAWING TITLE: ESD BLOCK DIAGRAM		DRAWING NO. BK-005-PR00-180-PR-BD-0001		SHEET NO. 1 OF 7		REV. DOI	
SCALE	SIZE	AS	AS	AS	AS	AS	AS
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED							
APPROVED FOR CONSTRUCTION				BY: DATE:			
BUDGET REV.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION	DOI
00-05-073-0184	F	2	J	708004	07		DOI

(VENDOR TITLE BLOCK)**

NOTES

1. THE UPS SHALL GENERATE AN ALARM BEFORE POWER LOSS TO NOTIFY OPERATOR. THE OPERATOR SHALL TAKE NECESSARY ACTIONS BEFORE LOSING THE SAFETY SYSTEM FOR SAFE SHUTDOWN AND BLOWDOWN OF PLANT.
2. BLOWDOWN COMMAND SHALL BE GENERATED AFTER PRE-DEFINED TIME (ACCORDING TO ESD PHILOSOPHY) OR IN CASE OF RECEIVING RELATED ESDs CLOSED STATUS SIGNAL.
3. TO BE CONSIDERED IN F&G CAUSE & EFFECT.
4. ALL ELECTRICAL SOURCES EXCEPT ESSENTIAL POWER SOURCES SHALL BE ISOLATED
5. KEY PROTECTED PUSHBUTTONS SHALL BE PROVIDED FOR BLOWDOWN OF EACH TRAIN BY RECEIVING THE PERMISSION FROM ESD SYSTEM. THE KEYS SHALL ACTIVATE STAGE BLOWDOWN VALUES INCLUDING THE TRAINS.
6. FOR DETAILS OF ESD 3 CAUSES AND EFFECTS, REFER TO CAUSE & EFFECT DIAGRAM.
7. ADJUSTABLE DELAY.
8. LEVEL 0 ESD FROM EXISTING ESD SYSTEM SHALL GENERATE AN ALARM AND SHALL NOT HAD ANY EFFECT IN BLOWDOWN SYSTEM BECAUSE THE TRIP AND SHUTDOWN LINES ARE SEPARATE AND HAVE ISOLATE INPUT AND OUTPUT LINES.

LEGEND

- 1.A. Inertant Air
- P.A/GA Public Address/General Alarm
- K.O. Knock-out Drum
- H.H. High High
- L.L. Low Low
- P.B. Push Button
- ESDV Emergency Shutdown Valve
- BDV Blow-Down Valve

REFERENCE DRAWING	DRG. No.
*****	*****

KEY PLAN

REV.	DESCRIPTION	BY	DATE	CHECKED	BY	DATE
01	*****	*****	*****	*****	*****	*****
02	*****	*****	*****	*****	*****	*****
03	*****	*****	*****	*****	*****	*****

ملاحظات:
 1- اصل و کپی سب از این سند و هر تغییری که در آن صورت می گیرد، باید به تایید مهندس مسئول باشد.
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APPROVED FOR CONSTRUCTION	BY:	DATE:
BUDGET REV	LOCATION	SIZE CLASS SERIAL NO.
00-05-073-0104	F	2 J 1 708004 07 001

ESD BLOCK DIAGRAM

SCALE: AS

DRAWING NO. BK-005-PB00-180-PR-BD-0001

SHEET NO. 2 OF 7

REV. 001

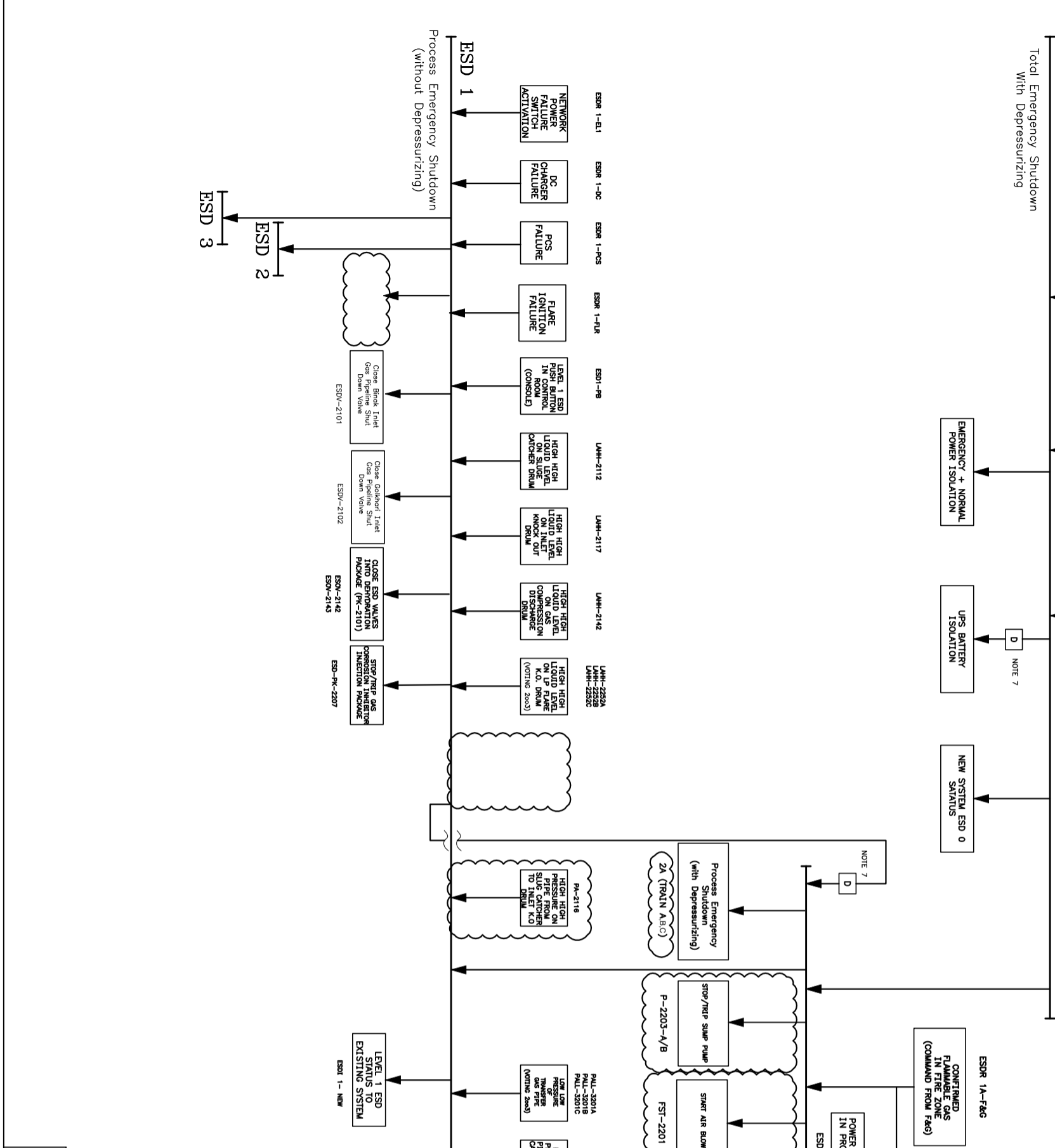
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION

PROJECT NO.: 071000

EPD/PEC CONTRACTOR (GC): PETROBRAN DEVELOPMENT COMPANY

ERBMAN ENERGY - DESIGN & INSPECTION

ERBMAN COMPANY



ESD 0

Total Emergency Shutdown With Depressurizing

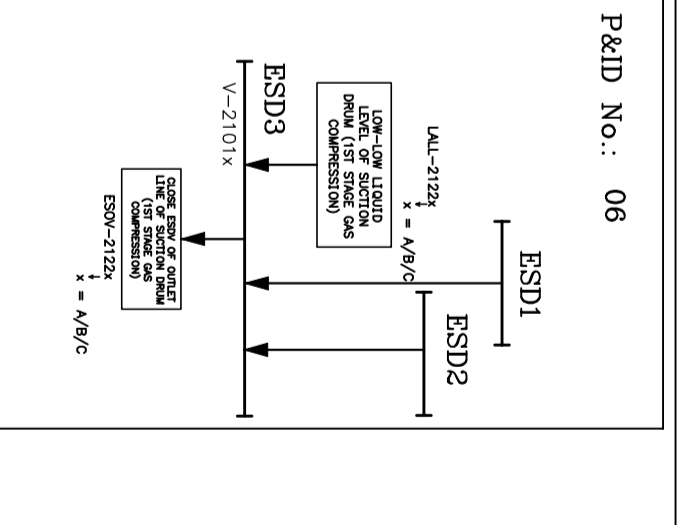
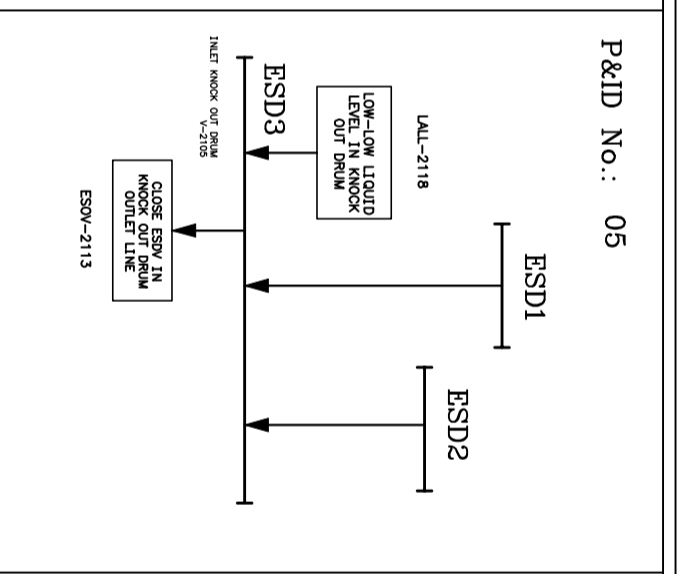
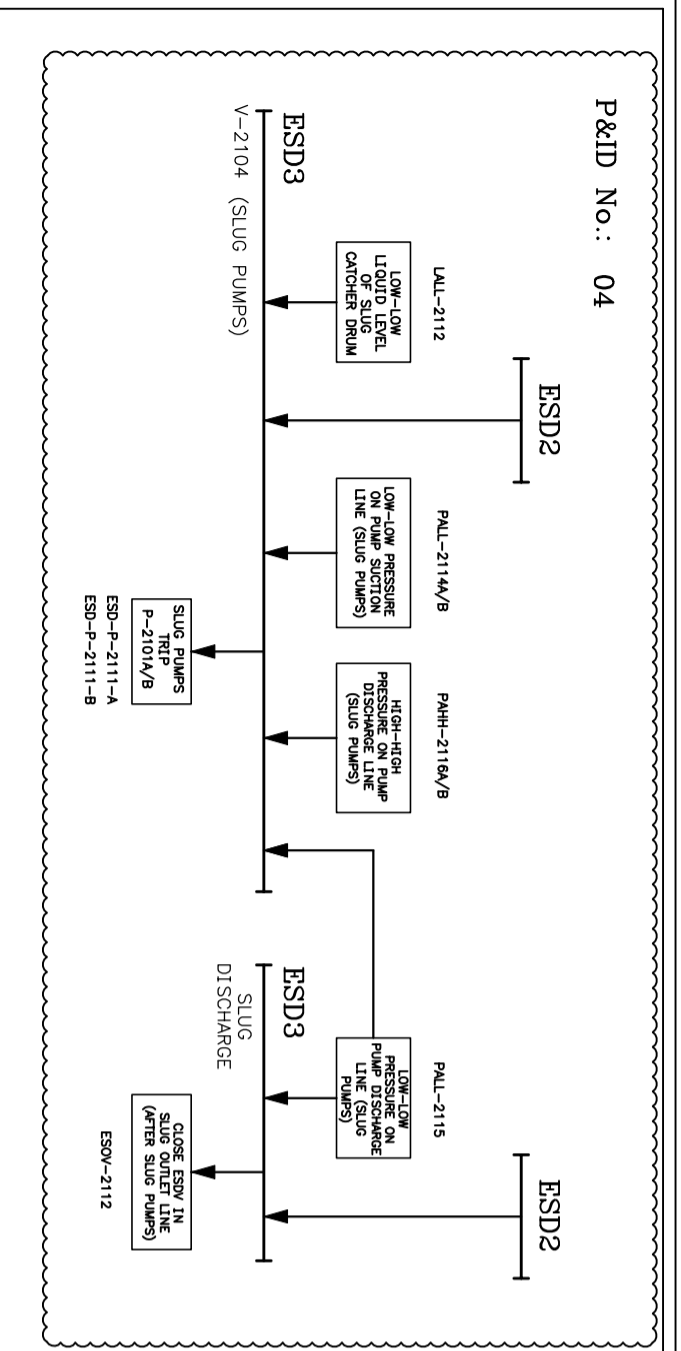
ESD 1

Process Emergency Shutdown (Without Depressurizing)

ESD 2

ESD 3

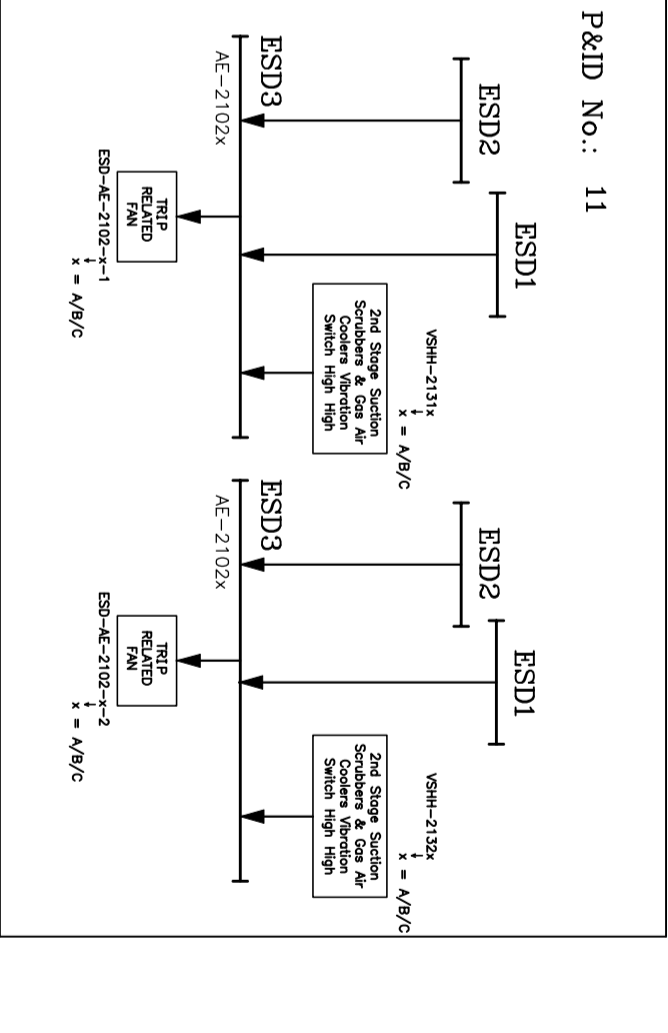
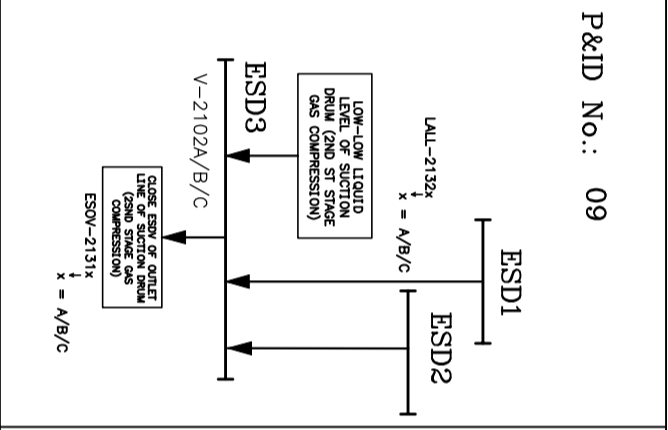
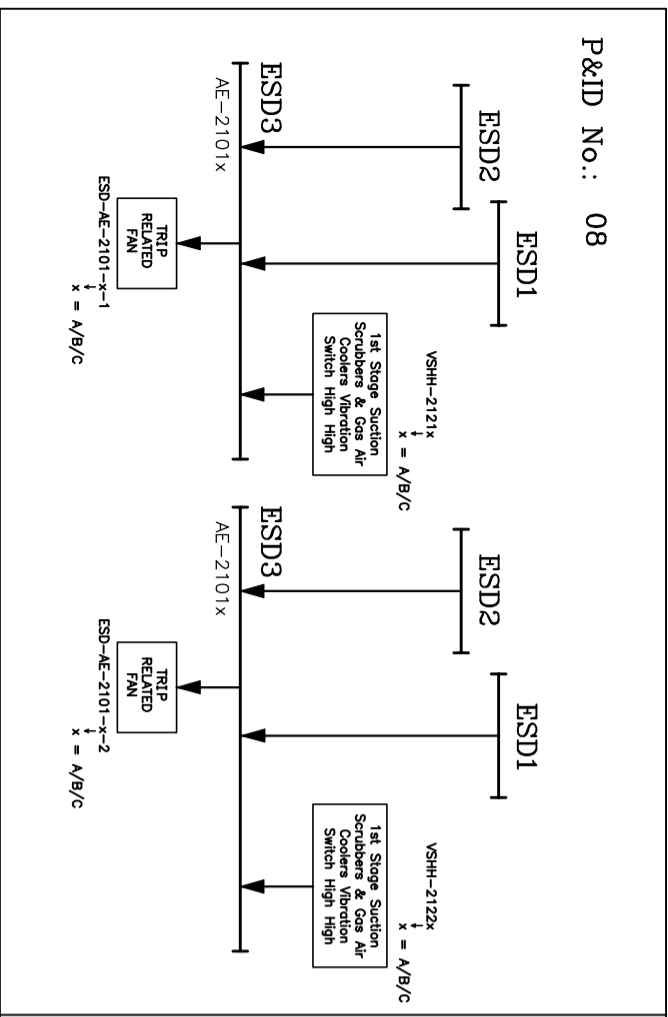
- ESDR 1-EL1 NETWORK POWER FAILURE SWITCH ACTIVATION
- ESDR 1-DC DC CHARGER FAILURE
- ESDR 1-PCS PCS FAILURE
- ESDR 1-FLR FLARE IGNITION FAILURE
- ESDR 1-PB LEVEL 1 ESD PUSH BUTTON IN CONTROL (CONSOLID)
- ESDV-2101 Close Blow Inlet Gas Pipeline Shut Down Valve
- ESDV-2102 Close Gallop Inlet Gas Pipeline Shut Down Valve
- ESDV-2142 CLOSE ESD VALVES INTO DEPHYDRATION PACKAGE (PK-2101)
- ESDV-2143 STOP/Trip Gas Compressor/Injection Package
- ESD-PK-2207 STOP/Trip Gas Compressor/Injection Package (NOTING 2003)
- ESDR 0-UPS UPS FAILURE (SIGNAL FROM DCS)
- ESDR 0-F&G CONFIRMED FLAMMABLE GAS IN CONTROL ROOM (COMMAND FROM F&G)
- ESDR 1A-F&G CONFIRMED FLAMMABLE GAS IN FIRE ZONE (COMMAND FROM F&G)
- ESDR 1A-EL1 POWER ISOLATION IN PROCESS AREA
- ESDR 1A-PB LEVEL 1A ESD IN CONTROL ROOM (CONSOLE)
- ESDR 1A-NEW LEVEL 1A ESD STATUS TO EXISTING SYSTEM



NOTES

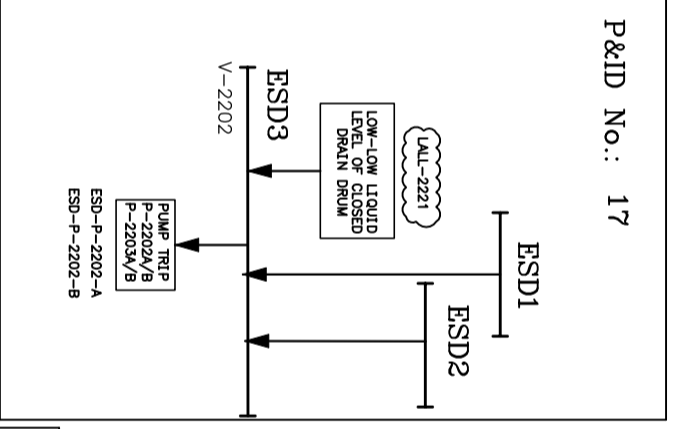
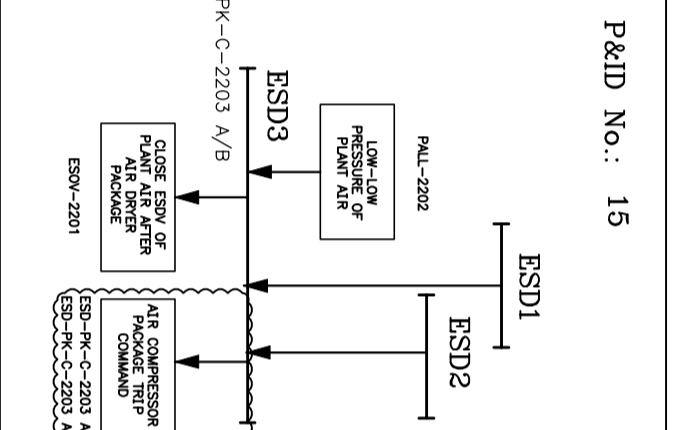
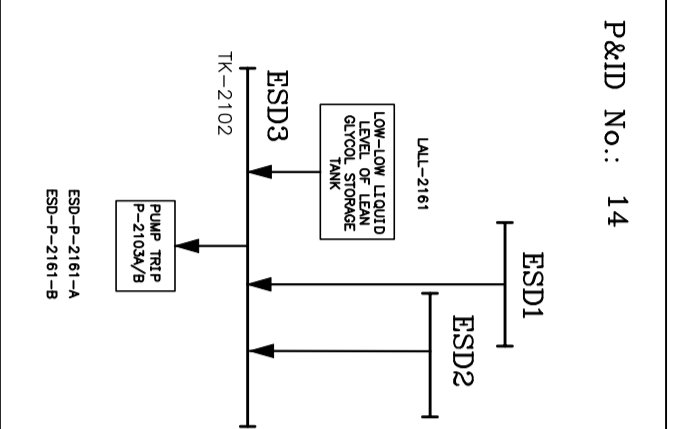
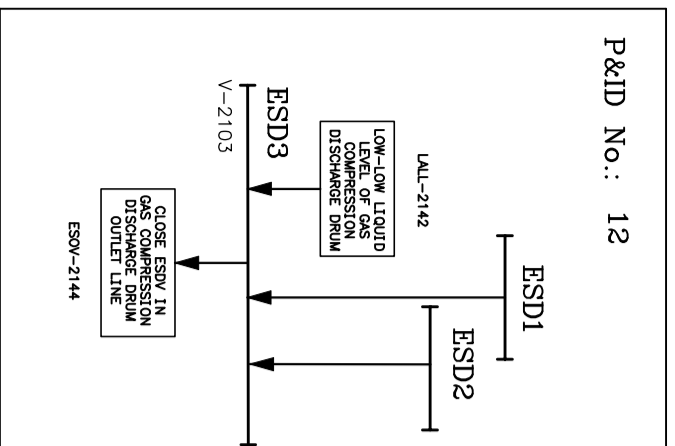
LEGEND

IA: Instrument Air
 PA/GA: Public Address/General Alarm
 K.O.: Knock-out Drum
 H.H.: High High
 L.L.: Low Low
 P.B.: Push Button
 ESDV: Emergency Shutdown Valve
 BDV: Blow-Down Valve



REFERENCE DRAWING

KEY PLAN



(VENDOR TITLE BLOCK)**

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
N.T.S	A3	BR-005-PR00-180-PR-BD-0001	8 OF 7	001

REV.	DATE	BY	CHK.	APP.	AUT.
001	MAY 2025	MP	MP	MP	**
002	DEC 2025	JFA	JFA	JFA	**

PROJECT NAME: BINAQ OILFIELD DEVELOPMENT/SURFACE FACILITIES

PROJECT NO.: 071000

EPIC CONTRACTOR: BINAQ OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

EPD/EPIC CONTRACTOR (GC): PETROBRAN DEVELOPMENT COMPANY

DATE: SCALE: DRAWING BY: CHECKED BY: PROJECT ENG.

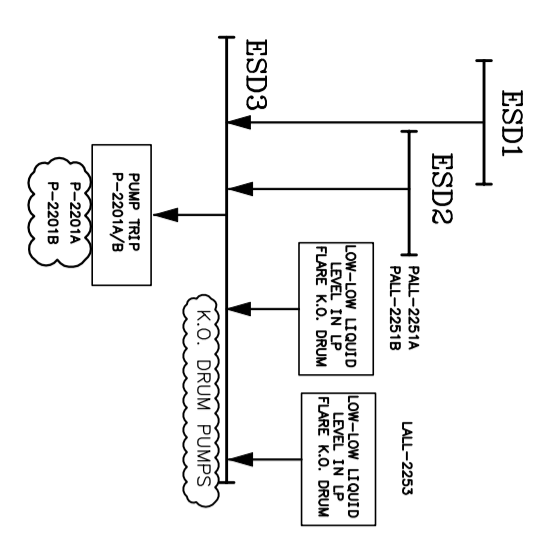
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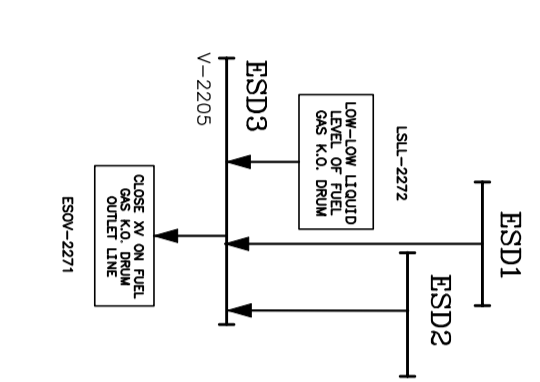
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00-05-073-0184 F 2 1 708004 07 001

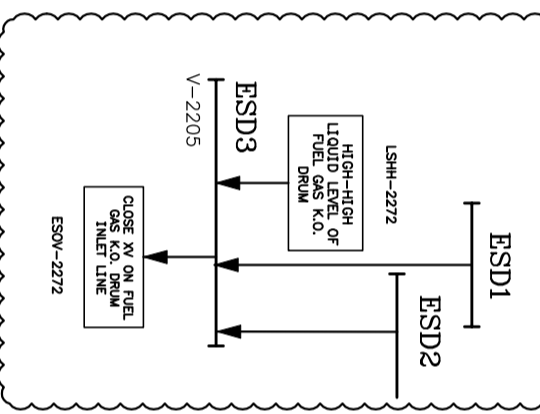
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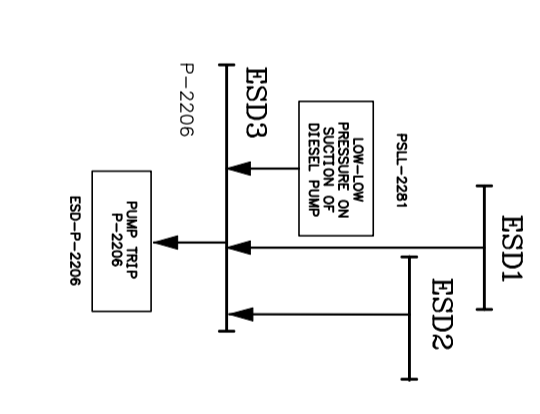
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P&ID No.: 22



P&ID No.: 23



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NO.	DESCRIPTION	DRG. No.
*****		*****

KEY PLAN

NO.	DESCRIPTION	BY	DATE	CHKD	DATE	REV.	DATE
001	DEC.2022	JFA				**	**
002	MAY.2022	JFC				**	**
REV.	DATE	FO:IS	PREP.	CHK.	APP.	ADT.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION
 PROJECT NO.: 071020

EPIC CONTRACTOR: HIRSHAN DEVELOPMENT COMPANY
 EPC CONTRACTOR: HIRSHAN ENERGY - DESIGN & INSPECTION

EPIC/ERC CONTRACTOR (GC): PETROBRAN DEVELOPMENT COMPANY
 PBD/CO

DRAWING TITLE: ESD BLOCK DIAGRAM
 SCALE: AS
 SHEET NO. 7 OF 7
 REV. 001

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED FOR CONSTRUCTION
 APPROVED FOR CONSTRUCTION BY: DATE: 00-03-073-0104

(VENDOR TITLE BLOCK)**