

DOCUMENT TITLE:

F&G CAUSE AND EFFECT DIAGRAM  
FOR PROCESS AREA

NOTES	
LEGEND	
REFERENCE DRAWING	DRG. No.
FIREHALL/FIRE FIGHTING/LARGE	HK-DCS-FIEXCO-125-IN-PP-0000
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	HK-OVALL-FIEXCO-008-IN-SF-0000
FIRE & GAS DETECTION DESIGN CRITERIA	HK-DCS-FIEXCO-126-IN-SC-0001
EED LEVEL HIERARCHY	HK-DCS-FIEXCO-126-IN-SG-0001
KEY PLAN	

[illegible]

(VENDOR TITLE BLOCK)\*



[illegible]

NOTES	
LEGEND	
REFERENCE DRAWING	DWG. No.
P&ID LAYOUT FOR PROCESS AREA	HE-OCF-PEDCO-100-IN-PY-0006
SPECIFICATION FOR FIRE & GAS SENSOR AND DETECTOR	HE-GSRA-PEDCO-000-IN-ST-0008
FIRE & GAS DETECTION DESIGN CRITERIA	HE-OCF-PEDCO-100-IN-DC-0001
ECD LEVEL HIERARCHY	HE-OCF-PEDCO-100-IN-DC-0003
KEY PLAN	

[illegible]

(VENDOR TITLE BLOCK)\*

[illegible]

DOO	MAY 2022	IPC	P.DRAWING	R.P.DRAWING	N.DRAWING	** **			
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.			
PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES		
							GAS COMPRESSOR STATION		
PROJECT NO.:							971020		
EPC CONTRACTOR:					EPD/EPC CONTRACTOR (GC):				
 HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES					  PETROIRAN DEVELOPMENT COMPANY				
DRAWING TITLE:							F&E CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA		
(VENDOR TITLE BLOCK)**									
SCALE	SIZE	DRAWING NO.				SHEET NO.	REV.		
N.T.S.	A3	HK-GCS-PEDCO-180-IN-DG-0006				03 OF 14	DOD		

REFERENCE DRAWING	DRG. No.
P&ID LAYOUT FOR PROCESS AREA	HK-CGS-PEDCO-120-IN-PY-0006
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	HK-GENERAL-PEDCO-006-IN-SP-0008
FIRE & GAS DETECTION DESIGN CRITERIA	HK-CGS-PEDCO-120-IN-DC-0001
SDS LEVEL HIERARCHY	HK-CGS-PEDCO-120-IN-DG-0003

KEY PLAN	


[illegible]

[illegible]

DOO	MAY 2022	IPC	P.ELDERMAN	A.PACHARAT	S.BEERASAD	** **	
REV.	DATE	P.O.I.S	PREP.	CHEK	APP.	AUT.	
<b>PROJECT NAME:</b> BENAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION							
<b>PROJECT NO.:</b> 971020							
<b>EPC CONTRACTOR:</b>  HURGAN ENERGY - DESIGN & INSPECTION COMPANIES				<b>EPD/EPC CONTRACTOR (GC):</b>  PETROIRAN DEVELOPMENT COMPANY			
<b>DRAWING TITLE:</b> P&ID CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA							
(VENDOR TITLE BLOCK)**							
SCALE	SIZE	DRAWING NO.				SHEET NO.	REV.
N.T.S.	A3	HK-GCS-PEDCO-180-IN-DG-0006				04 OF 14	DOO



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DOO	MAY 2022	IPC	P.DRAWING	R.P.DRAWING	S.DRAWING			** **	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.			
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION									
PROJECT NO.: 971020									
EPC CONTRACTOR:  HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES						EPD/EPC CONTRACTOR (GC):  PETROIRAN DEVELOPMENT COMPANY			
DRAWING TITLE: P&ID CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA									
(VENDOR TITLE BLOCK)**									
SCALE	SIZE	DRAWING NO.				SHEET NO.	REV.		
N.T.S.	A3	HK-GCS-PEDCO-180-IN-DG-0006				06 OF 14	DOW		

[illegible]

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-2 (1ST. & 2ND STAGE GAS COMPRESSOR&SUCTION DRUMS)		EFFECT		TAG		MATRIX PANEL IN CONTROL ROOM		F&G GRAPHIC DISPLAYS IN CONTROL ROOM		FIELD AREA		REMARKS
ACTION	DESCRIPTION	LAMP FOR CONFIRMED FIRE ALARM	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM	COMMON AUDIBLE ALARM	CR-AREA2 FIRE ALARM	CR-AREA2 UNCONFIRMED HIGH GAS ALARM	CR-AREA2 UNCONFIRMED LOW GAS ALARM	CR-AREA2 UNCONFIRMED HIGH GAS ALARM	CR-AREA2 UNCONFIRMED LOW GAS ALARM	CR-AREA2 UNCONFIRMED HIGH GAS ALARM	
INITIATE	LAMP FOR CONFIRMED FIRE ALARM											
INITIATE	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM											
INITIATE	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM											
INITIATE	COMMON AUDIBLE ALARM											
INITIATE	CR-AREA2 FIRE ALARM											
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM											
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM											
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM											
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INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM											
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM											
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM											
INITIATE	CR-AREA2 UNCONFIRMED											

		<b>EPC CONTRACTOR:</b>  <b>HURGAN ENERGY – DESIGN &amp; INSPECTION COMPANIES</b>		<b>EPD/EPC CONTRACTOR (GC):</b>  <b>PETROIRAN DEVELOPMENT COMPANY</b>	
<b>(VENDOR TITLE BLOCK)**</b>		<b>DRAWING TITLE:</b> <b>P&amp;G CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA</b>			
		<b>SCALE:</b>	<b>SIZE:</b>	<b>DRAWING NO.</b>	<b>SHEET NO.</b>
		<b>N.T.S.</b>	<b>A3</b>	<b>BK-GCS-PEDCO-120-IN-DG-0009</b>	<b>08 OF 14</b>
					<b>REV.</b>
					<b>DOO</b>

[illegible]

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-2 (1ST. & 2ND STAGE GAS COMPRESSOR&SUCTION DRUMS)		EFFECT		TAG		MATRIX PANEL IN CONTROL ROOM		F&G GRAPHIC DISPLAYS IN CONTROL ROOM		FIELD AREA	
CAUSE	ACTION	DESCRIPTION									
	INITIATE	LAMP FOR CONFIRMED FIRE ALARM								BP-2001	
	INITIATE	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM								BP-2001	
	INITIATE	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM								HW-2001	
	INITIATE	LAMP FOR CONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	COMMON AUDIBLE ALARM								HW-2001	
	INITIATE	CR-AREA2 FIRE ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM								HW-2001	
	INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM									

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NOTES
1. (CR)CONTROL ROOM MONITORING IS DEDICATED TO ALARMING ON F&G OPERATOR WORKSTATION.
2. 2 DIFFERENT TONES TO BE SELECTED FOR HORN AND BEACON ONE FOR FLAMMABLE/ TOXIC GAS DETECTION(NON-CONTINUOUS) AND ONE FOR FIRE DETECTION (CONTINUOUS).
3. DIFFERENT COLORS TO BE SELECTED FOR LIGHTS OF BEACONS:  RED FOR FIRE AND FLAMMABLE GAS DETECTION  BLUE FOR TOXIC GAS DETECTION

### LEGEND

REFERENCE DRAWING	DRG. No.
P&ID LAYOUT FOR PROCESS AREA	BK-OCS-PIEDCO-120-IN-PY-0006
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	BK-ORNL-PIEDCO-006-IN-SF-0000
FIRE & GAS DETECTION DESIGN CRITERIA	BK-OCS-PIEDCO-120-IN-DC-0001
ESD LEVEL HIERARCHY	BK-OCS-PIEDCO-120-IN-DG-0003

## KEY PLAN

[illegible]

EPC CONTRACTOR:	EPC CONTRACTOR (GC):	BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION				
 HIRGAN ENERGY – DESIGN & INSPECTION	 PETROIRAN DEVELOPMENT COMPANY					
		DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

DRAWING TITLE: PGO GAZE AND EFFECT DIAGRAM FOR PROCESS AREA				NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED							
				APPROVED FOR CONSTRUCTION		BY:		DATE:			
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.	DUGGIE REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
N.T.S.	A3	BK-OCS-PEOCO-120-IN-DG-0000	07 OF 14	D00	0-04-678-B184	F	2	J	708952	14	D00

(VENDOR TITLE BLOCK)\*\*





[illegible][illegible]

NOTES

1. (CR) CONTROL ROOM MONITORING IS DEDICATED TO ALARMING ON F&G OPERATOR WORKSTATION.
2. 2 DIFFERENT TONES TO BE SELECTED FOR HORN AND BEACON ONE FOR FLAMMABLE/ TOXIC GAS DETECTION(NON--CONTINUOUS) AND ONE FOR FIRE DETECTION (CONTINUOUS).
3. DIFFERENT COLORS TO BE SELECTED FOR LIGHTS OF BEACONS:  
RED FOR FIRE AND FLAMMABLE GAS DETECTION  
BLUE FOR TOXIC GAS DETECTION

[illegible]

REFERENCE DRAWING	DRG. No.
P&ID LAYOUT FOR PROCESS AREA	HK-QCS-PEDCO-120-IN-PY-0005
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	HK-OSRAL-PEDCO-006-IN-SF-0001
FIRE & GAS DETECTION DESIGN CRITERIA	HK-QCS-PEDCO-120-IN-DC-0001
ESD LEVEL HIERARCHY	HK-QCS-PEDCO-120-IN-DG-0003

## KEY PLAN

[illegible]

(VENDOR TITLE BLOCK)\*\*

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-2 (1ST. & 2ND STAGE AIR COOLER AREA)		EFFECT		CAUSE		REMARKS
ACTION	DESCRIPTION	TAG	MATRIX PANEL IN CONTROL ROOM	F&G GRAPHIC DISPLAYS IN CONTROL ROOM	FIELD AREA	
INITIATE	LAMP FOR CONFIRMED FIRE ALARM				BP-2001	
INITIATE	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM				BP-2001	
INITIATE	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM				BP-2001	
INITIATE	LAMP FOR CONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	COMMON AUDIBLE ALARM				BP-2001	
INITIATE	CR-AREA2 FIRE ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
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INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
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INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
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INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
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INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
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INITIATE	CR-AREA2 UNCONFIRMED TOXIC GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED LOW GAS ALARM				BP-2001	
INITIATE	CR-AREA2 UNCONFIRMED HIGH GAS ALARM				BP-2001	
INITIATE						


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
KEY PLAN

[illegible]

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-2 (1ST. & 2ND STAGE AIR COOLER AREA)			EFFECT																			FIELD AREA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			TAG						MATRIX PANEL IN CONTROL ROOM						F&G GRAPHIC DISPLAYS IN CONTROL ROOM							BP-2001						BB-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001						HW-2001</					

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-3 (GLYCOL STORAGE TANK AREA)		EFFECT		CAUSE		REMARKS
ACTION	DESCRIPTION	TAG	MATRIX PANEL IN CONTROL ROOM	F&G GRAPHIC DISPLAYS IN CONTROL ROOM	FIELD AREA	
INITIATE	LAMP FOR CONFIRMED FIRE ALARM					
INITIATE	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM					
INITIATE	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM					
INITIATE	LAMP FOR CONFIRMED TOXIC GAS ALARM					
INITIATE	COMMON AUDIBLE ALARM					
INITIATE	CR-AREA3 FIRE ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
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INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED LOW GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED HIGH GAS ALARM					
INITIATE	CR-AREA3 UNCONFIRMED TOXIC GAS ALARM					
INITIATE						

DOO	MAY 2022	IPC	P.DESIGNED	E.FABRICATED	N.WERECOMD	** **
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
<b>PROJECT NAME:</b> BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION						
<b>PRODUCT NO.:</b> S71020						
<b>EPC CONTRACTOR:</b>  HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES			<b>EPD/EPC CONTRACTOR (GC):</b>  PETROIRAN DEVELOPMENT COMPANY 			
<b>DRAWING TITLE:</b> FEG CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA						
(VENDOR TITLE BLOCK)**						
SCALE	SIZE	DRAWING NO.			SHEET NO.	REV.
N.T.S.	A3	HK-GCS-PEDCO-180-IN-DG-0006			12 OF 14	DOD

REV.	DESCRIPTION	BY	DATE	BY	DATE	REV.	DESCRIPTION	BY	DATE
000						000			
<p>املو و کاپيه حق ثبت و نقشه بر نقشه پلان بزرگ ترکت شده است          THE ORIGINAL AND ALL COPIES OF THIS DRAWING TOGETHER WITH          THIS COPYRIGHT THEREON ARE THE SOLE PROPERTY OF          N.I.S.O.C.' FIELDS'</p>									
 <p>BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION</p>									
DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.					
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED									
APPROVED FOR CONSTRUCTION		BY:			DATE:				
BUDGET RPT	LOCATION SITE CLASS	SERIAL NO.			SHEET		REVISION		
0-63-F7S-0194	F 2 J	706862			14		D00		

[illegible][illegible]

REFERENCE DRAWING	DRG. No.
P&ID LAYOUT FOR PROCESS AREA	BK-OCS-PEDCO-120-IN-PY-0005
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	BK-ORNL-PEDCO-006-IN-SF-0005
FIRE & GAS DETECTION DESIGN CRITERIA	BK-OCS-PEDCO-120-IN-DC-0001
2ND LEVEL HIERARCHY	BK-OCS-PEDCO-120-IN-DC-0003

KEY PLAN	

[illegible]

(VENDOR TITLE BLOCK)\*

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-4 (FIRE WATER AREA)		EFFECT		TAG		MATRIX PANEL IN CONTROL ROOM		F&G GRAPHIC DISPLAYS IN CONTROL ROOM		FIELD AREA	
		ACTION	DESCRIPTION								
CAUSE	INITIATE	LAMP FOR CONFIRMED FIRE ALARM									
	INITIATE	LAMP FOR CONFIRMED LOW FLAMMABLE GAS ALARM									
	INITIATE	LAMP FOR CONFIRMED HIGH FLAMMABLE GAS ALARM									
	INITIATE	LAMP FOR CONFIRMED TOXIC GAS ALARM									
	INITIATE	COMMON AUDIBLE ALARM									
	INITIATE	CR-AREA4 FIRE ALARM									
	INITIATE	CR-AREA4 UNCONFIRMED LOW GAS ALARM									
	INITIATE	CR-AREA4 UNCONFIRMED HIGH GAS ALARM									
	INITIATE	CR-AREA4 CONFIRMED HIGH GAS ALARM									
	INITIATE	ALARM RED FLASH LIGHT FOR FIRE									
	INITIATE	ALARM BLUE FLASH LIGHT FOR TOXIC GAS									
	INITIATE	ALARM SOUNDER WITH CONTINUOUS SOUND FOR FIRE									
	INITIATE	ALARM SOUNDER WITH NON-CONTINUOUS SOUND FOR FLAMMABLE TOXIC GAS									
	INITIATE	ESD REQUEST 1A									
	INITIATE	ESD REQUEST 2A									
											REMARKS

[illegible]

**LEGEND**

KEY PLAN	

[illegible]

(VENDOR TITLE BLOCK)\*