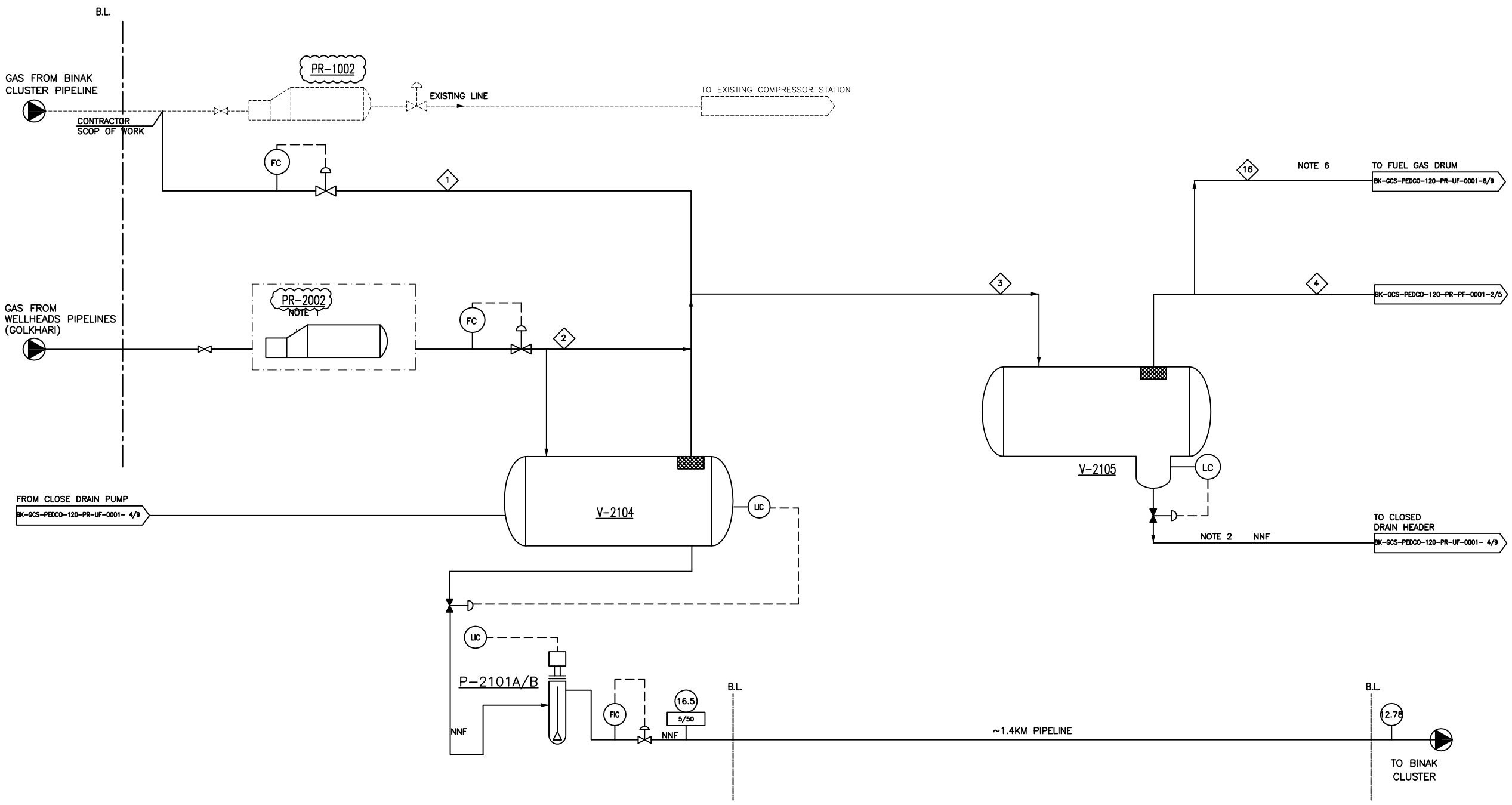
PR-1002
EXISTING BINAK PIG RECEIVER

PR-2002
GOLKHARI PIG RECEIVER
(BY OTHERS)

V-2104
SLUG CATCHER DRUM
OP. TEMP. : 15.5 ~ 32.0 °C
OP. PRESS.: 5.5 BARG

V-2105
INLET KNOCK OUT DRUM
OP. TEMP. : 19.2 ~ 37.2 °C
OP. PRESS. : 5.3 BARG



P-2101 A/B
SLUG PUMPS
NORMAL CAPACITY : 10 m3/hr
DIFFERENTIAL PRESSURE : 14 bar

NOTES

1. GAS PIG RECEIVERS ARE IN SCOPE OF PIPELINE EPC CONTRACTOR.
2. IN SOME CASES, IT IS POSSIBLE TO ACCUMULATE SOME LIQUID IN INLET LINES. THE MAX. FLOW RATE IS 180 BARREL PER DAY.
3. IN CASE OF PIGGING, 29800 kg/h WILL BE FLOWED TO FLARE.
4. MAX. FLOW RATE IN PIGGING CASE WILL BE 333600 kg/h.
5. DELETED.
6. FUEL GAS CONSUMPTION WILL BE FINALIZED AFTER RECEIVED DATA FROM DEHYDRATION PACKAGE VENDOR.

LEGEND

- LIQUID FLOW RATE, Kg/hr
- GAS FLOW RATE, Sm3/h
- PRESSURE barg
- TEMPERATURE °C
- STREAM NUMBER
- MASS FLOW RATE, Kg/hr

REFERENCE DRAWING	DRG. No.
Symbol & Legend For PFD and P&ID	BK-GNRAL-PEDCO-000-PR-PI-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001

KEY PLAN

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
D06	JAN.2023	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D05	SEP.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D04	MAR.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D03	JAN.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D02	NOV.2021	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D01	OCT.2021	IFA	M.ARYAFAR	M.FAKHARIAN	SH.GHALIKAR	**.**
D00	AUG.2021	IFC	M.ASGHARNEJAD	M.FAKHARIAN	SH.GHALIKAR	**.**

REV.	DESCRIPTION	CHECKED BY	DATE	REV. APPR. BY	DATE
***	**********	**.**	***.****	**.**	***.****

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 (PEDCO)

BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

(VENDOR TITLE BLOCK)**

DRAWING TITLE: Process Flow Diagram (PFD)

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
NS	A3	BK-GCS-PEDCO-120-PR-PF-0001	1 OF 5	D06

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
053-073-9184	F	2	A	706777	1 OF 5	D06

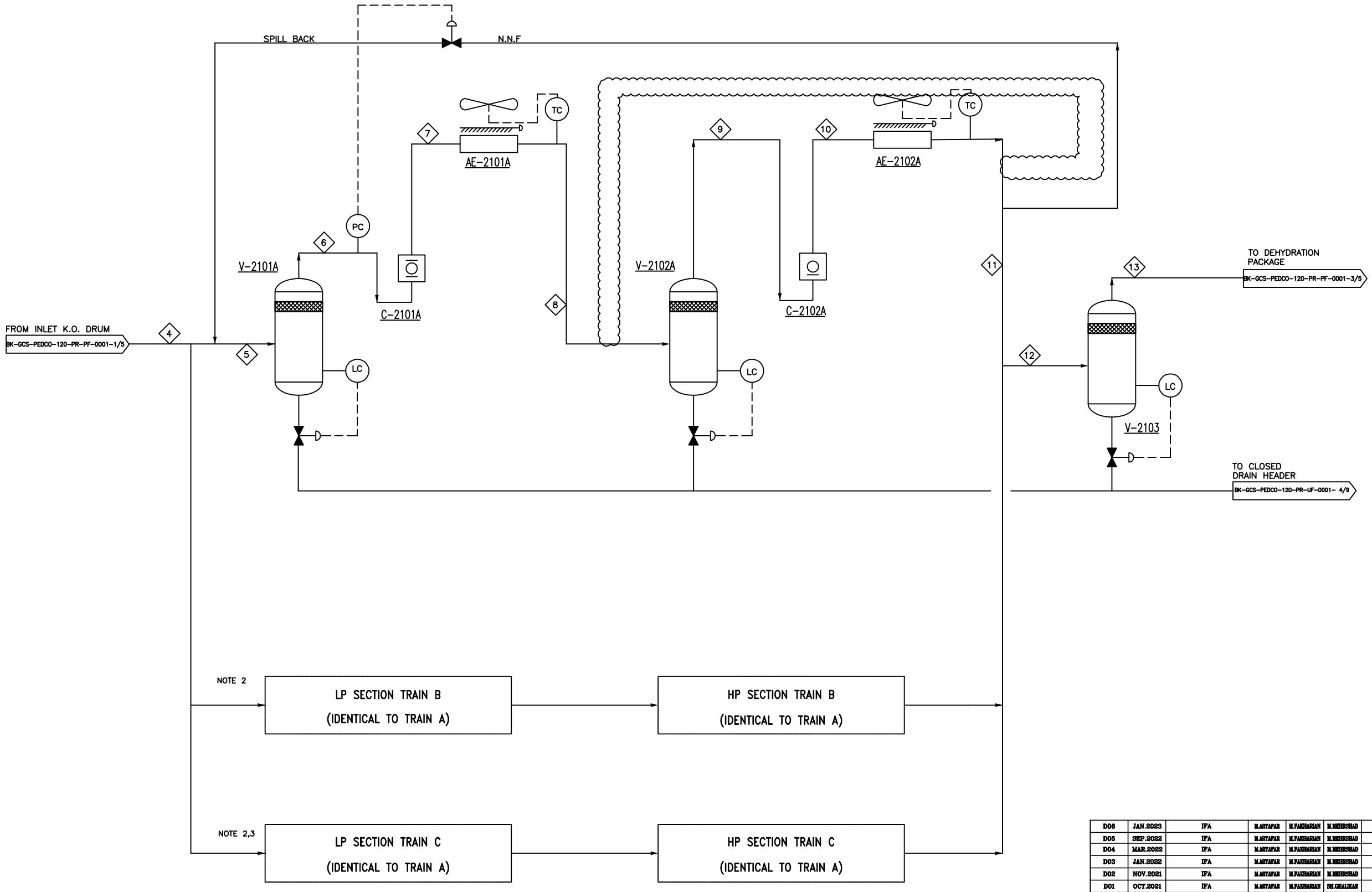
V-2101 A/B/C
1ST STAGE GAS
COMPRESSION SUCTION DRUM
OP. TEMP. : 19.02 ~ 36.92 °C
OP. PRESS. : 5.1 BARG

AE-2101 A/B/C
1ST STAGE GAS
COMPRESSION AIR COOLER
HEAT DUTY : 242.22 ~ 331.80 KW
INLET TEMP. : 113.1 ~ 124.8
OUTLET TEMP. : 60°C

V-2102 A/B/C
2ND STAGE GAS
COMPRESSION SUCTION DRUM
OP. TEMP. : 60 °C
OP. PRESS. : 18.3 BARG

AE-2102 A/B/C
2ND STAGE GAS
COMPRESSION AIR COOLER
HEAT DUTY : 451.25 ~ 493.03 KW
INLET TEMP. : 142.3 ~149.1°C
OUTLET TEMP. : 60°C

V-2103
2ND STAGE GAS
COMPRESSION DISCHARGE DRUM
OP. TEMP. : 60 °C
OP. PRESS. : 54.1 BARG



NOTE 2

LP SECTION TRAIN B
(IDENTICAL TO TRAIN A)

HP SECTION TRAIN B
(IDENTICAL TO TRAIN A)

NOTE 2,3

LP SECTION TRAIN C
(IDENTICAL TO TRAIN A)

HP SECTION TRAIN C
(IDENTICAL TO TRAIN A)

C-2101A/B/C
1ST STAGE GAS COMPRESSOR
NORMAL CAPACITY (MMSCFD) : 7.065 / 7.093
DIFFERENTIAL PRESSURE (BAR) : 14.1
BHP DUTY (kW) : 463.4 /484.3
NOTE 1

C-2102A/B/C
2ND STAGE GAS COMPRESSOR
NORMAL CAPACITY (MMSCFD) : 7.065 / 7.093
DIFFERENTIAL PRESSURE (BAR) : 36.7
BHP DUTY (kW) : 436.5/448.3
NOTE 1

NOTES

1. 2+1 TRAIN IS CONSIDERED.
2. TRAIN "B" , "C" ARE THE SAME AS TRAIN "A" .
3. TRAIN "C" IS STAND BY.

LEGEND

- LIQUID FLOW RATE, Kg/hr
- GAS FLOW RATE, Sm3/h
- PRESSURE barg
- TEMPERATURE °C
- STREAM NUMBER
- MASS FLOW RATE, Kg/hr

REFERENCE DRAWING	DRG. No.
Symbol & Legend For PFD and P&ID	BK-GNRAL-PEDCO-000-PR-PI-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001

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D02	NOV.2021	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D01	OCT.2021	IFA	M.ARYAFAR	M.FAKHARIAN	SH.GHALIKAR	**.**
D00	AUG.2021	IFC	M.ASGHARNEJAD	M.FAKHARIAN	SH.GHALIKAR	**.**

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	
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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 (PEDCO)

BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED
APPROVED FOR CONSTRUCTION | BY: | DATE:

(VENDOR TITLE BLOCK)**

DRAWING TITLE: Process Flow Diagram (PFD)

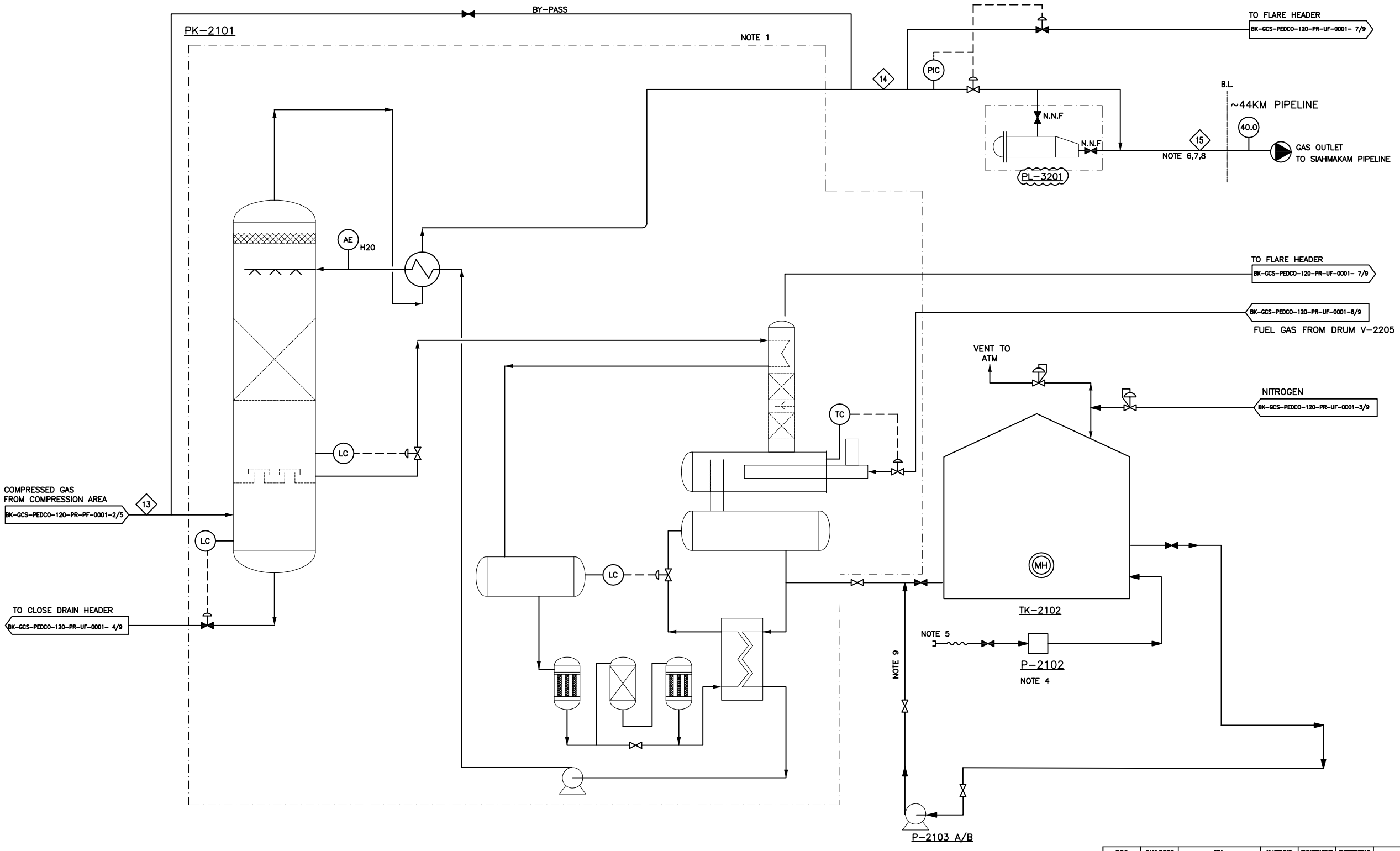
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
NS	A3	BK-GCS-PEDCO-120-PR-PF-0001	2 OF 5	D06

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
053-073-9184	F	2	A	708777	2 OF 5	D06

PK-2101
DEHYDRATION PACKAGE

TK-2102
LEAN GLYCOL STORAGE TANK
NORMAL.CAPACITY : 44M3
OP. TEMP. AMB.
OP. PRESS. : 0.10 BARG

PL-3201
PIG LAUNCHER
OP. TEMP. 57.7/58.3 °C
OP. PRESS. 49.6/50.9 BARG



P-2102
GLYCOL MANUAL PUMP
NORMAL CAPACITY : 3 m3/hr
DIFFERENTIAL PRESSURE : 1.5 bar

P-2103 A/B
GLYCOL TRANSFER PUMPS

NOTE 9

NOTES

1. EQUIPMENT AND CONFIGURATION OF GLYCOL PACKAGE WILL BE FINALIZED BY VENDOR.
2. DELETED.
3. DELETED.
4. MANUAL PUMP.
5. CONNECTION FOR GLYCOL LOADING FROM TRUCK.
6. THE PRODUCT WATER DEW POINT MUST BE CONSIDERED 5 °C.
7. THE PRODUCT WATER CONTENT IS CALCULATED 11.43~11.63 lb/MMSCFD AND WILL BE FINALIZED BY VENDOR.
8. THE OUTLET PRESSURE OF GCS IS CONSIDERED BASED ON THE RESULTS OF HYDRAULIC CALCULATIONS OF THE SIAHMAKAN PIPELINE.
9. 0.5 LIT/MMSCFD FOR GLYCOL MAKE-UP IS ASSUMED. IT WILL BE FINALIZED BY VENDOR.

LEGEND

- LIQUID FLOW RATE, Kg/hr
- GAS FLOW RATE, Sm3/h
- PRESSURE barg
- TEMPERATURE °C
- STREAM NUMBER
- MASS FLOW RATE, Kg/hr

REFERENCE DRAWING	DRG. No.
Symbol & Legend For PFD and P&ID	BK-GNRAL-PEDCO-000-PR-PI-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001

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BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

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BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
053-073-9184	F	2	A	708777	3 OF 5	D06

SUMMER CASE

STREAM NUMBER	Unit	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Vapour Fraction		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Temperature	[C]	46.1	32.0	37.2	36.9	36.9	36.8	124.8	60.0	59.9	142.3	60.0	60.0	59.9	59.4	58.3	36.9
Pressure	[bar_g]	5.5	5.5	5.3	5.1	5.1	4.9	19.0	18.3	18.1	54.8	54.1	54.1	53.9	52.9	50.9	5.1
Molar Flow	[MMSCFD]	5.000	9.600	14.600	14.600	7.093	7.093	7.093	7.093	7.093	7.093	7.093	14.186	14.103	14.027	14.027	0.414
Mass Flow	[kg/h]	6564	11269	17833	17833	8664	8664	8664	8664	8664	8664	8664	17327	17252	17171	17171	506
Heat Flow	[kW]	-6597	-11587	-18184	-18184	-8834	-8834	-8434	-8766	-8766	-8409	-8902	-17805	-17479	-17263	-17263	-516
Molar component fraction																	
Comp Mole Frac (H2O)		0.015844	0.007433	0.010314	0.010314	0.010314	0.010314	0.010314	0.010314	0.010314	0.010314	0.010314	0.010314	0.004486	0.000222	0.000222	0.010314
Comp Mole Frac (CO2)		0.034540	0.030078	0.031606	0.031606	0.031606	0.031606	0.031606	0.031606	0.031606	0.031606	0.031606	0.031606	0.031791	0.031898	0.031898	0.031606
Comp Mole Frac (H2S)		0.028046	0.067700	0.054119	0.054119	0.054119	0.054119	0.054119	0.054119	0.054119	0.054119	0.054119	0.054119	0.054427	0.053973	0.053973	0.054119
Comp Mole Frac (Methane)		0.574395	0.672531	0.638921	0.638921	0.638921	0.638921	0.638921	0.638921	0.638921	0.638921	0.638921	0.638921	0.642692	0.646060	0.646060	0.638921
Comp Mole Frac (Ethane)		0.173785	0.118624	0.137515	0.137515	0.137515	0.137515	0.137515	0.137515	0.137515	0.137515	0.137515	0.137515	0.138327	0.139039	0.139039	0.137515
Comp Mole Frac (Propane)		0.105491	0.062637	0.077314	0.077314	0.077314	0.077314	0.077314	0.077314	0.077314	0.077314	0.077314	0.077314	0.077770	0.078135	0.078135	0.077314
Comp Mole Frac (i-Butane)		0.012694	0.006155	0.008394	0.008394	0.008394	0.008394	0.008394	0.008394	0.008394	0.008394	0.008394	0.008394	0.008444	0.008454	0.008454	0.008394
Comp Mole Frac (n-Butane)		0.029325	0.013004	0.018594	0.018594	0.018594	0.018594	0.018594	0.018594	0.018594	0.018594	0.018594	0.018594	0.018703	0.018787	0.018787	0.018594
Comp Mole Frac (i-Pentane)		0.007577	0.006651	0.006968	0.006968	0.006968	0.006968	0.006968	0.006968	0.006968	0.006968	0.006968	0.006968	0.007009	0.006999	0.006999	0.006968
Comp Mole Frac (n-Pentane)		0.004920	0.003177	0.003774	0.003774	0.003774	0.003774	0.003774	0.003774	0.003774	0.003774	0.003774	0.003774	0.003796	0.003810	0.003810	0.003774
Comp Mole Frac (n-Hexane)		0.008069	0.005757	0.006549	0.006549	0.006549	0.006549	0.006549	0.006549	0.006549	0.006549	0.006549	0.006549	0.006588	0.006623	0.006623	0.006549
Comp Mole Frac (n-Heptane)		0.002854	0.001489	0.001956	0.001956	0.001956	0.001956	0.001956	0.001956	0.001956	0.001956	0.001956	0.001956	0.001968	0.001979	0.001979	0.001956
Comp Mole Frac (n-Octane)		0.000787	0.000496	0.000596	0.000596	0.000596	0.000596	0.000596	0.000596	0.000596	0.000596	0.000596	0.000596	0.000599	0.000603	0.000603	0.000596
Comp Mole Frac (n-Nonane)		0.000295	0.000298	0.000297	0.000297	0.000297	0.000297	0.000297	0.000297	0.000297	0.000297	0.000297	0.000297	0.000299	0.000300	0.000300	0.000297
Comp Mole Frac (n-Decane)		0.000098	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000099	0.000100	0.000100	0.000100	0.000099
Comp Mole Frac (n-C11)		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Comp Mole Frac (Nitrogen)		0.001279	0.003871	0.002984	0.002984	0.002984	0.002984	0.002984	0.002984	0.002984	0.002984	0.002984	0.002984	0.003001	0.003017	0.003017	0.002984
Vapour Phase Property																	
Phase - Molar Flow	[kgmole/h]	249.0	478.1	727.1	727.2	353.3	353.3	353.3	353.3	353.3	353.3	351.2	702.4	702.4	698.7	698.7	20.6
Phase - Mass Flow	[kg/h]	6564	11269	17832	17833	8664	8664	8664	8664	8664	8664	8626	17253	17252	17171	17171	506
Phase - Heat Flow	[kW]	-6597	-11587	-18177	-18184	-8834	-8834	-8434	-8766	-8766	-8409	-8740	-17479	-17479	-17263	-17263	-516
Phase Mass Heat Capacity	[kJ/kg-C]	1.94	1.90	1.91	1.91	1.91	1.91	2.22	2.06	2.06	2.42	2.40	2.40	2.40	2.39	2.37	1.91
Phase Actual Gas Flow	[ACT_m3/h]	985.0	1813.5	2892.7	2987.7	1451.5	1501.1	563.2	474.0	479.1	201.8	145.2	290.5	291.6	295.8	307.4	84.7
Phase Std Gas Flow	[MMSCFD]	4.991	9.582	14.571	14.573	7.080	7.080	7.080	7.080	7.080	7.080	7.038	14.076	14.076	14.001	14.001	0.413
Phase Molecular Weight		26.36	23.57	24.52	24.52	24.52	24.52	24.52	24.52	24.52	24.52	24.56	24.56	24.56	24.58	24.58	24.52
Phase Mass Density	[kg/m3]	6.66	6.21	6.16	5.97	5.97	5.77	15.38	18.28	18.08	42.92	59.39	59.39	59.17	58.06	55.86	5.97
Phase Viscosity	[cP]	0.012	0.011	0.011	0.011	0.011	0.011	0.015	0.013	0.013	0.016	0.014	0.014	0.014	0.014	0.014	0.011
Phase Cp/Cv		1.225	1.261	1.246	1.246	1.246	1.245	1.225	1.279	1.278	1.278	1.462	1.462	1.461	1.456	1.448	1.246
Phase Thermal Conductivity	[W/m-K]	0.029	0.029	0.029	0.029	0.029	0.029	0.042	0.033	0.033	0.047	0.037	0.037	0.037	0.037	0.036	0.029
Phase Z Factor		0.970	0.974	0.973	0.974	0.974	0.975	0.964	0.936	0.936	0.923	0.823	0.823	0.823	0.825	0.829	0.974
Liquid Phase Property																	
Phase - Molar Flow	[kgmole/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Mass Flow	[kg/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Heat Flow	[kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Mass Heat Capacity	[kJ/kg-C]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Actual Volume Flow	[m3/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Liq Vol Flow@Std Cond	[m3/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Molecular Weight		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Mass Density	[kg/m3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Viscosity	[cP]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Thermal Conductivity	[W/m-K]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface Tension	[dyne/cm]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES

LEGEND

- LIQUID FLOW RATE, Kg/hr
- GAS FLOW RATE, Sm3/h
- PRESSURE bar
- TEMPERATURE °C
- STREAM NUMBER
- MASS FLOW RATE, Kg/hr

REFERENCE DRAWING	DRG. No.
Symbol & Legend For PFD and P&ID	BK-GNRAL-PEDCO-000-PR-PI-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001

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SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

(VENDOR TITLE BLOCK)**

DRAWING TITLE: Process Flow Diagram (PFD)

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
NS	A3	BK-GCS-PEDCO-120-PR-PF-0001	4 OF 5	D06

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
053-073-9184	F	2	A	708777	4 OF 5	D06

WINTER CASE

STREAM NUMBER	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vapour Fraction		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Temperature	[C]	26.7	15.5	19.2	19.0	19.0	18.9	113.1	60.0	59.9	149.5	60.0	60.0	59.9	59.4	57.7	19.0
Pressure	[bar_g]	5.5	5.5	5.3	5.1	5.1	4.9	19.0	18.3	18.1	54.8	54.1	54.1	53.9	52.9	49.6	5.1
Molar Flow	[MMSCFD]	5.000	9.600	14.601	14.600	7.065	7.065	7.065	7.065	7.065	7.065	7.065	14.129	14.129	14.068	14.068	0.471
Mass Flow	[kg/h]	5071	10606	15677	15677	7585	7585	7585	7585	7585	7585	7585	15171	15171	15105	15105	506
Heat Flow	[kW]	-5768	-11394	-17162	-17161	-8304	-8304	-7921	-8163	-8163	-7797	-8248	-16496	-16496	-16325	-16325	-554
Molar component fraction																	
Comp Mole Frac (H2O)		0.005433	0.002741	0.003663	0.003638	0.003638	0.003638	0.003638	0.003638	0.003638	0.003638	0.003638	0.003638	0.003638	0.000230	0.000230	0.003638
Comp Mole Frac (CO2)		0.016716	0.029622	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025202	0.025261	0.025261	0.025202
Comp Mole Frac (H2S)		0.018675	0.061836	0.047054	0.047056	0.047056	0.047056	0.047056	0.047056	0.047056	0.047056	0.047056	0.047056	0.047056	0.046603	0.046603	0.047056
Comp Mole Frac (Methane)		0.783733	0.716902	0.739790	0.739809	0.739809	0.739809	0.739809	0.739809	0.739809	0.739809	0.739809	0.739809	0.739809	0.742925	0.742925	0.739809
Comp Mole Frac (Ethane)		0.118553	0.112003	0.114247	0.114249	0.114249	0.114249	0.114249	0.114249	0.114249	0.114249	0.114249	0.114249	0.114249	0.114718	0.114718	0.114249
Comp Mole Frac (Propane)		0.042190	0.050067	0.047370	0.047371	0.047371	0.047371	0.047371	0.047371	0.047371	0.047371	0.047371	0.047371	0.047371	0.047542	0.047542	0.047371
Comp Mole Frac (i-Butane)		0.003278	0.004289	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003942	0.003941	0.003941	0.003942
Comp Mole Frac (n-Butane)		0.007078	0.008677	0.008129	0.008130	0.008130	0.008130	0.008130	0.008130	0.008130	0.008130	0.008130	0.008130	0.008130	0.008157	0.008157	0.008130
Comp Mole Frac (i-Pentane)		0.001292	0.003989	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003066	0.003056	0.003056	0.003066
Comp Mole Frac (n-Pentane)		0.000786	0.001795	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001450	0.001453	0.001453	0.001450
Comp Mole Frac (n-Hexane)		0.000941	0.002892	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002224	0.002234	0.002234	0.002224
Comp Mole Frac (n-Heptane)		0.000243	0.000698	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000542	0.000545	0.000545	0.000542
Comp Mole Frac (n-Octane)		0.000053	0.000199	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000149	0.000150	0.000150	0.000149
Comp Mole Frac (n-Nonane)		0.000016	0.000100	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071	0.000071
Comp Mole Frac (n-Decane)		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Comp Mole Frac (n-C11)		0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Comp Mole Frac (Nitrogen)		0.001013	0.004189	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003101	0.003115	0.003115	0.003101
Vapour Phase Property																	
Phase - Molar Flow	[kgmole/h]	249.1	478.2	727.1	727.2	351.9	351.9	351.9	351.9	351.9	351.9	351.9	703.7	703.7	700.7	700.7	23.5
Phase - Mass Flow	[kg/h]	5071	10606	15676	15677	7585	7585	7585	7585	7585	7585	7585	15171	15171	15105	15105	506
Phase - Heat Flow	[kW]	-5768	-11394	-17157	-17161	-8304	-8304	-7921	-8163	-8163	-7797	-8248	-16496	-16496	-16325	-16325	-554
Phase Mass Heat Capacity	[kJ/kg-C]	2.04	1.89	1.94	1.94	1.94	1.94	2.25	2.12	2.12	2.46	2.38	2.38	2.38	2.37	2.35	1.94
Phase Actual Gas Flow	[ACT_m3/h]	932.3	1713.2	2730.6	2820.2	1364.6	1411.2	547.7	479.8	484.9	210.0	153.5	307.0	308.1	312.6	333.5	91.0
Phase Std Gas Flow	[MMSCFD]	4.991	9.582	14.572	14.573	7.051	7.051	7.051	7.051	7.051	7.051	7.051	14.103	14.103	14.042	14.042	0.47
Phase Molecular Weight		20.36	22.18	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56	21.56
Phase Mass Density	[kg/m3]	5.44	6.19	5.74	5.56	5.56	5.38	13.85	15.81	15.64	36.11	49.41	49.41	49.23	48.32	45.29	5.56
Phase Viscosity	[cP]	0.011	0.011	0.011	0.011	0.011	0.011	0.014	0.013	0.013	0.016	0.014	0.014	0.014	0.014	0.014	0.01
Phase Cp/Cv		1.28	1.28	1.28	1.28	1.28	1.28	1.25	1.30	1.30	1.28	1.43	1.43	1.43	1.430	1.420	1.28
Phase Thermal Conductivity	[W/m-K]	0.031	0.028	0.029	0.029	0.029	0.029	0.042	0.035	0.035	0.050	0.039	0.039	0.039	0.038	0.038	0.03
Phase Z Factor		0.978	0.972	0.975	0.976	0.976	0.977	0.970	0.951	0.951	0.948	0.868	0.868	0.868	0.870	0.875	0.98
Liquid Phase Property																	
Phase - Molar Flow	[kgmole/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Mass Flow	[kg/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Heat Flow	[kW]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Mass Heat Capacity	[kJ/kg-C]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Actual Volume Flow	[m3/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase - Liq Vol Flow@Std Cond	[m3/h]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Molecular Weight		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Mass Density	[kg/m3]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Viscosity	[cP]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase Thermal Conductivity	[W/m-K]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surface Tension	[dyne/cm]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES

LEGEND

- LIQUID FLOW RATE, Kg/hr
- GAS FLOW RATE, Sm3/h
- PRESSURE bar
- TEMPERATURE °C
- STREAM NUMBER
- MASS FLOW RATE, Kg/hr

REFERENCE DRAWING	DRG. No.
Symbol & Legend For PFD and P&ID	BK-GNRAL-PEDCO-000-PR-PI-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001

KEY PLAN

REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	
•••	••••••••••	••.••	•••.••••	••.••	•••.••••
D05	SEP.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D04	MAR.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D03	JAN.2022	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D02	NOV.2021	IFA	M.ARYAFAR	M.FAKHARIAN	M.MEHRSHAD	
D01	OCT.2021	IFA	M.ARYAFAR	M.FAKHARIAN	SH.GHALIKAR	••.••
D00	AUG.2021	IFC	M.ASGHARNEJAD	M.FAKHARIAN	SH.GHALIKAR	••.••
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 (PEDCO)

BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS COMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

(VENDOR TITLE BLOCK)**

DRAWING TITLE: Process Flow Diagram (PFD)

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
NS	A3	BK-GCS-PEDCO-120-PR-PF-0001	5 OF 5	D06

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION
053-073-9184	F	2	A	708777	5 OF 5	D06