

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							  	
	I/O LIST FOR CONTROL /ESD SYSTEM								
شماره پیمان: 053 - 073 - 9184	پروژه BK	بسته کاری PPL	صادر کننده PEDCO	تسهیلات 320	رشته IN	نوع مدرک LI	سریال 0002	نسخه D01	شماره صفحه: 1 از 6

طرح نگهداشت و افزایش تولید 27 مخزن

I/O LIST FOR CONTROL/ESD SYSTEM

نگهداشت و افزایش تولید میدان نفتی بینک

D01	FEB.2023	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	JUN.2022	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1

CLIENT Doc. Number: F0Z-708609

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built –Approved



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



I/O LIST FOR CONTROL /ESD SYSTEM

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

PPL

صادرکننده

PEDCO

تسهیلات

320

رشته

IN

نوع مدرک

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سریال

0002

نسخه

D01

شماره صفحه: 2 از 6

REVISION RECORD SHEET

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	I/O LIST FOR CONTROL /ESD SYSTEM								
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 – 9184	BK	PPL	PEDCO	320	IN	LI	0002	D01	

REFERENCES:

P&ID - GAS PIPELINE (TO SIAHMAKAN G.I. STATION)	BK-PPL-PEDCO-320-PR-PI-0001_D02
P&ID - CONDENSATE PIPELINE (TO BINAK PU)	BK-PPL-PEDCO-320-PR-PI-0002_D02
P&ID - SYMBOL & LEGEND for PFD and P&ID	BK-PPL-PEDCO-320-PR-PI-0003_D01

NOTES:

- NOTE 1 : ALL OF ANALOUGE TRANSMITTERS (AI/AO) SHALL BE CONSIDERED INTRINSICALLY SAFE (EEXIA) & ALL OF DIGITAL TRANSMITTERS (DI/DO) ARE NON INTRINSICALLY SAFE (EEXD).
- NOTE 2 : I/O CARDS & ACCESSORIES SHALL BE SELECTED IN ACCORDANCE WITH " SPECIFICATION FOR CONTROL SYSTEM".
- NOTE 3 : ESD EQUIPMENT & ALL OF EQUIPMENT THAT IS ASSIGNED IN A CONTROL LOOP, ARE REDUNDANT.



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



I/O LIST FOR CONTROL /ESD SYSTEM

شماره پیمان:

053 - 073 - 9184

نسخه	سریال	نوع مدرک	رشته	تجهیزات	صادر کننده	بسته کاری	پروژه
D01	0002	LI	IN	320	PEDCO	PPL	BK

شماره صفحه: 4 از 6

**IO SIGNALS SUMMERY COUNT(TO/FROM GCS-DCS)
SHALL BE CONSIDERED IN GCS-DCS SYSTEM I/O COUNT(INCLUDED IN OTHER WORK PACK)**

ITEM	I/O TYPE	IS/NIS	R/NR	DESCRIPTION	QTY OF SIGNALS	QTY (+20% SPARE)	REMARKS
1 D01	DI-NIS-NR	NIS	NR	DIGITAL INPUT HARDWARE SIGNAL (NON INTRINSICALLY SAFE, NON-REDUNDANT)	2	3	NOTES 1,2,3
2 D01	DI-NIS-R	NIS	R	DIGITAL INPUT HARDWARE SIGNAL (NON INTRINSICALLY SAFE, REDUNDANT)	2	3	NOTES 1,2,3
2	DO-NIS-R	NIS	R	DIGITAL OUTPUT HARDWARE SIGNAL (NON INTRINSICALLY SAFE, REDUNDANT)	1	2	NOTES 1,2,3

**IO SIGNALS SUMMERY COUNT(TO/FROM GCS-ESD)
SHALL BE CONSIDERED IN GCS-ESD SYSTEM I/O COUNT(INCLUDED IN OTHER WORK PACK)**

ITEM	I/O TYPE	IS/NIS	R/NR	DESCRIPTION	QTY OF SIGNALS	QTY (+20% SPARE)	REMARKS
1	AI-IS-R	IS	R	ANALOGUE INPUT HARDWARE SIGNAL (INTRINSICALLY SAFE, REDUNDANT)	3	4	NOTES 1,2,3
2 D01	DI-NIS-R	NIS	R	DIGITAL INPUT HARDWARE SIGNAL (NON INTRINSICALLY SAFE, REDUNDANT)	2	3	NOTES 1,2,3
3	DO-NIS-R	NIS	R	DIGITAL OUTPUT HARDWARE SIGNAL (NON INTRINSICALLY SAFE, REDUNDANT)	1	2	NOTES 1,2,3

DIGITAL DI-DO (To SIAHMAKAN) SUMMERY COUNT

ITEM	DIGITAL INPUT /OUTPUT	R/NR	DESCRIPTION	QTY OF SIGNALS	QTY (+20% SPARE)	REMARKS
1	DIGITAL INPUT	R	DIGITAL INPUT HARDWARE SIGNAL (REDUNDANT)(VIA SIL 3 SAFETY RELAY)	2	3	NOTE 3
2	DIGITAL OUTPUT	R	DIGITAL INPUT HARDWARE SIGNAL (NON-REDUNDANT)(VIA SIL 3 SAFETY RELAY)	2	3	NOTE 3

ABBREVIATIONS:

I/O	INPUT / OUTPUT	DCS:	DISTRIBUTED CONTROL SYSTEM
DI:	DIGITAL INPUT SIGNAL	ESD:	EMERGENCY SHUT DOWN SYSTEM
DO:	DIGITAL OUTPUT SIGNAL	F&G	FIRE AND GAS CONTROL SYSTEM
AI:	ANALOGUE INPUT SIGNAL	MCC:	MOTOR CONTROL CENTER
AO:	ANALOGUE OUTPUT SIGNAL	IRP:	INTERPOSING RELAY PANEL
IND:	INDICATION	CH:	CHANNEL
STA:	STATUS	ADD:	ADDRESS
COM:	COMMAND	TB:	TERMINAL BLOCK
IS	INTRINSICALLY SAFE	R:	REDUNDANT
NIS	NON INTRINSICALLY SAFE	NR:	NON-REDUNDANT



NISOC

تکهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



I/O LIST FOR CONTROL /ESD SYSTEM

شماره پیمان:

053 - 073 - 9184

پروژه

بسته کاری

صادر کننده

تجهیزات

رشته

نوع مدارک

سریال

نسخه

شماره صفحه: 5 از 6

BK

PPL

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320

IN

LI

0002

D01

I/O List for ESD/DCS OF GCS

ITEM	TAG	DESCRIPTION	SERVICE	P&ID	I/O TYPE	FROM	TO	SYSTEM CABINET					Marshalling Cabinet			ALARM				FUNCTION		REMARK D01	REV.		
								CABINET NO.	RACK	SLOT	CH.	ADD.	CABINET NO.	TB NO.	ADD.	HH	H	L	LL	IND/STA	COM.				
1	DS-3201 D01	Door Limit Switch	PL-3201	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DI-NIS-NR	FIELD	DCS	*	*	*	*	*	*	*	*	*	*					X		See Note 4 In Below Page	
2	ZS-3201 D01	Pig Signaler	PL-3201	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DI-NIS-NR	FIELD	DCS	*	*	*	*	*	*	*	*	*	*					X		See Note 4 In Below Page	
3	PSOV-3201	Solenoid Valve	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DO-NIS-NR	DCS	FIELD	*	*	*	*	*	*	*	*	*	*						X	See Note 1 In Below Page	
4	EZSC-3201	Emergency shutdown Limit Switch Close	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DI-NIS-R	FIELD	DCS D01	*	*	*	*	*	*	*	*	*	*					X		See Note 1 In Below Page	
5	EZSO-3201	Emergency shutdown Limit Switch Open	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DI-NIS-R	FIELD	DCS D01	*	*	*	*	*	*	*	*	*	*					X		See Note 1 In Below Page	
6	ESOV-3201	Solenoid Valve	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	DO-NIS-R	ESD	FIELD	*	*	*	*	*	*	*	*	*	*						X	See Note 1 In Below Page	
7	PIT-3201A	Pressure Indicator Transmitter	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	AI-IS-R	FIELD	ESD	*	*	*	*	*	*	*	*	*	*				X	X		See Note 1 In Below Page	
8	PIT-3201B	Pressure Indicator Transmitter	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	AI-IS-R	FIELD	ESD	*	*	*	*	*	*	*	*	*	*				X	X		See Note 1 In Below Page	
9	PIT-3201C	Pressure Indicator Transmitter	From DEHYDRATION (PK-2101) To PL-320	BK-PPL-PEDCO-320-PR-PI-0001 (1/3)	AI-IS-R	FIELD	ESD	*	*	*	*	*	*	*	*	*	*				X	X		See Note 1 In Below Page	
10																									
11																									

NOTE 1 : ALL I/O'S EXISTING IN THIS PAGE SHALL BE CONSIDERED IN NEW ESD AND DCS SYSTEM OF GCS WORKPACKAGE IN BINAK.

D01



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره صفحه: 6 از 6

053 - 073-9184

پیمان:

پروژه

بسته کاری

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تسهيلات

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نسخه

CONVENTIONAL RELAY BASED DIGITAL SIGNAL FOR EXISTING COMMON CONTROL/ESD SYSTEM OF SIAHMAKAN

D01

NOTE 1: THIS SIGNAL IS CONVENTIONAL RELAY BASED.

NOTE 2: ALL INPUT/OUTPUT SIGNALS FOR ABOVE ITEMS SHALL BE CONNECTED TO EXISTING CONVENTIONAL RELAY BASED CONTROL /ESD SYSTEM OF SIAHMAKAN PLANT , VIA NEW REQUIRED ACCESSORIES. REDUNDANT RELAY BASED SHALL BE CONSIDERED FOR ESD SIGNALS.