

UPS SINGLE LINE DIAGRAM EXTENSION OF BINAK B/C MANIFOLD



NOTES

LEGEND

| REFERENCE DRAWING | DRO. No. |
|--|-------------------------------|
| SPECIFICATION FOR UPS SYSTEM | BK-GNRL-PEDCO-000-EL-SP-0003 |
| CALCULATION WORK FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD | BK-W007S-PEDCO-110-EL-CN-0002 |
| DATA SHEET FOR UPS EXTENSION OF BINAK B/C MANIFOLD | BK-W007S-PEDCO-110-EL-DT-0002 |

| REV. | DATE | DESCRIPTION | CHECKED | BY | DATE | REV. | APPR. |
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| 000 | ***** | | | | | | |
| 001 | 03.03.2022 | APC | H.BAKBA | M.FARHANI | M.MOHRALI | 00.00 | |
| 002 | 03.03.2022 | IFA | H.BAKBA | M.FARHANI | M.MOHRALI | 00.00 | |
| 003 | 03.03.2022 | IFA | H.BAKBA | M.FARHANI | M.MOHRALI | 00.00 | |
| 004 | 03.03.2022 | IPC | H.BAKBA | M.FARHANI | M.MOHRALI | 00.00 | |
| 005 | 03.03.2022 | P.O.I.S | PREP. | CHK. | APP. | AUT. | |

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES
 W007S WHF & EXTENSION OF BINAK B/C
 PROJECT NO.: 971020

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| EPC CONTRACTOR:  HORGAN ENERGY - DESIGN & INSPECTION COMPANIES | | EPC/EPC CONTRACTOR (GC):  PETROIRAN DEVELOPMENT COMPANY PEDCO | |
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BINAK OILFIELD DEVELOPMENT
 SUB-SURFACE WORK PACKAGES
 W007S WHF & EXTENSION OF BINAK B/C

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| DATE | SCALE | DRAWING BY | CHECKED BY | PROJECT ENG. |
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NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

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| APPROVED FOR CONSTRUCTION | | BY: | DATE: |
| BUDGET REF. | LOCATION | SIZE | CLASS |
| 003-078-8184 | F | 2 | P |

| SCALE | SIZE | DRAWING NO. | SHEET NO. | REV. | BUDGET REF. | LOCATION | SIZE | CLASS | SERIAL NO. | SHEET | REVISION |
|-------|------|-------------------------------|-----------|------|--------------|----------|------|-------|------------|----------|----------|
| NTS | A3 | BK-W007S-PEDCO-110-EL-SL-0002 | 01 OF 04 | 005 | 003-078-8184 | F | 2 | P | 708028 | 01 OF 04 | 005 |

(VENDOR TITLE BLOCK)**

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NOTES

LEGEND

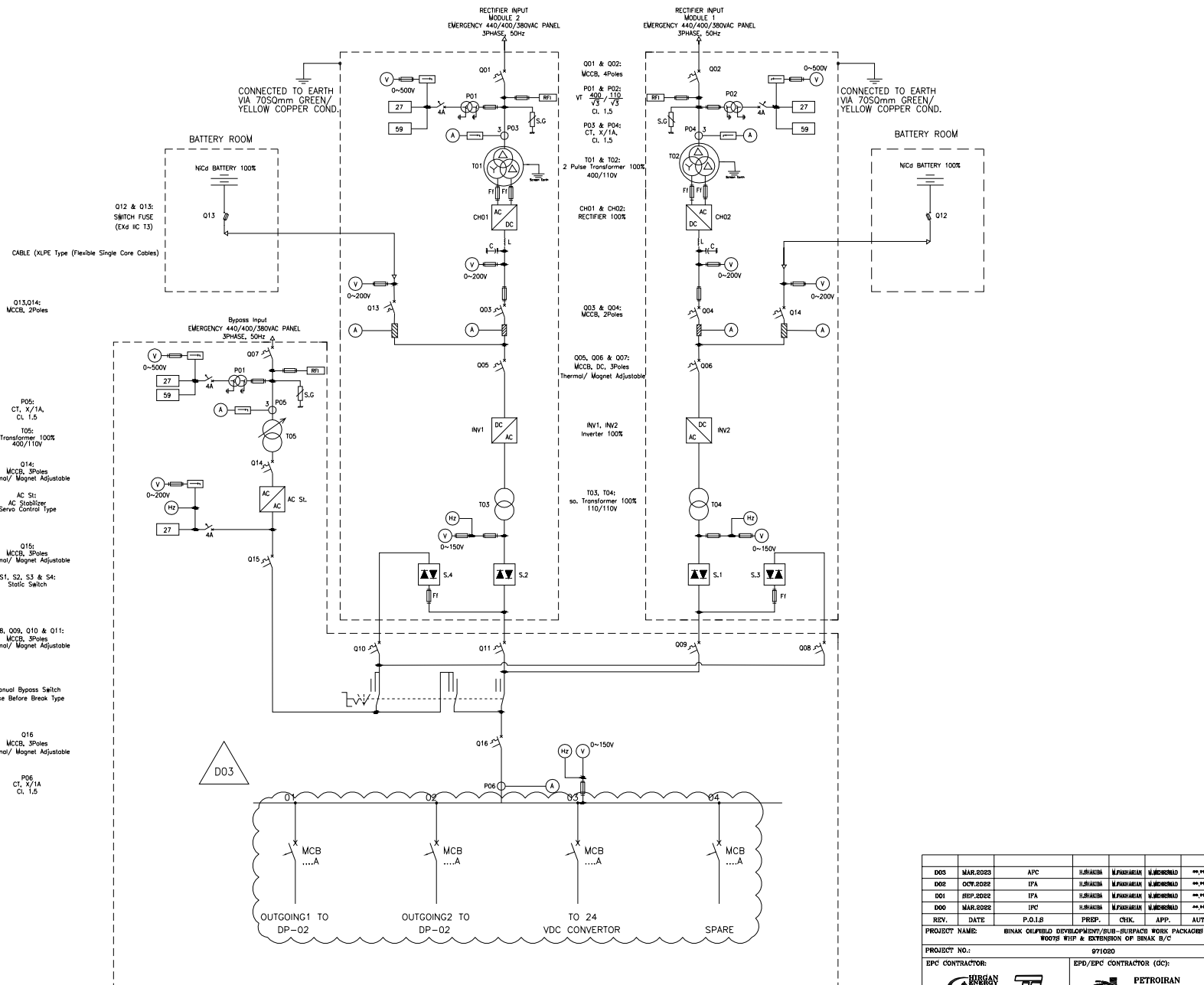
| REFERENCE DRAWING | DRO. No. |
|---------------------------------|-------------------------------|
| SPECIFICATION FOR UPS SYSTEM | BK-GNRL-PEDCO-000-EL-SP-0003 |
| CALCULATION WORK FOR UPS SYSTEM | BK-W007S-PEDCO-110-EL-CN-0002 |
| DATA SHEET FOR UPS | BK-W007S-PEDCO-110-EL-DT-0002 |
| EXTENSION OF BINAK B/C MANIFOLD | |

| REV. | DATE | DESCRIPTION | CHECKED | BY | DATE | REV. APPR. |
|------|------------|-------------|---------|-----------|------------|------------|
| 001 | 03.03.2023 | APC | ELBAKBA | MFARHAEIN | ALMICHRELD | 00.00 |
| 002 | 03.03.2023 | IFA | ELBAKBA | MFARHAEIN | ALMICHRELD | 00.00 |
| 003 | 03.03.2023 | IFA | ELBAKBA | MFARHAEIN | ALMICHRELD | 00.00 |
| 004 | 03.03.2023 | IPC | ELBAKBA | MFARHAEIN | ALMICHRELD | 00.00 |
| 005 | 03.03.2023 | P.O.I.S | PREP. | CHK. | APP. | AUT. |

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES W007S WHF & EXTENSION OF BINAK B/C
 PROJECT NO.: 971020
 EPC CONTRACTOR: MIRGAN ENERGY - DESIGN & INSPECTION COMPANIES
 EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY
 BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES W007S WHF & EXTENSION OF BINAK B/C
 NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED
 APPROVED FOR CONSTRUCTION BY: _____ DATE: _____
 BUDGET REF. LOCATION SIZE CLASS SERIAL NO. SHEET REVISION
 NTS AB BK-W007S-PEDCO-110-EL-SL-0002 02 OF 04 003 003-078-8184 F 2 P 708028 02 OF 04 003

امل و كله نسخ اين نقشه و هي القياس متعلق به شركت ملي صنايع نفت عييز جنوب ميانه
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(VENDOR TITLE BLOCK)**



- NOTES**
- MANUAL BYPASS SWITCH SHALL BE CONSIDERED MAKE BEFORE BREAK TYPE.
 - THE OVERALL ALARM/FAULT SIGNAL SHALL BE SENT TO PROCESS CONTROL SYSTEM (PCS) PANEL BY DRY CONTACT.
 - OUTPUT FEEDERS TO PCS PANEL SHALL BE CONSIDERED DOUBLE AND SEPARATE.
 - AC STABILIZER SHALL BE CONSIDERED SERVO CONTROL TYPE.
 - UPS SHALL BE CONSIDERED 12 PULSE.
 - CABLE SIZES SHALL BE CONSIDERED AFTER FINALIZING "ELECTRICAL POWER & CONTROL CABLE LIST - EXTENSION OF BINAK B/C MANIFOLD".
 - THIS SINGLE LINE DIAGRAM IS VALID FOR 110 VAC UPS.
 - ALL DEVICES SHALL BE SIZED BY VENDOR.
 - INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY BOOST CHARGE IF BATTERY ROOM VENTILATION IS OUT OF SERVICE.
 - INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY ROOM VENTILATION WHEN UPS IS ON BATTERY BOOST CHARGE MODE.
 - AUTOMATIC BATTERY ISOLATION FACILITY SHALL BE PROVIDED FOR INCOMING MCCB OF BATTERY BANK. INCOMING MCCB OF BATTERY BANK SHALL BE OPEN WHEN F&G SYSTEM SEND BATTERY ISOLATION SIGNAL TO THE UPS.
 - AN EARTH FAULT MONITORING SHALL BE PROVIDED FOR EVERY 10 FEEDERS FOR EASY OF FINDING FAULT BRANCH.
 - METERING AND PROTECTION SYSTEM SHALL BE COMPLETED BASED ON AC UPS SPECIFICATION AND DETAILED INFORMATION SHALL BE INDICATED ON VENDOR DRAWING.
 - THE BODY OF PANELS SHALL BE EARTHED DIRECTLY FROM TWO POINT
 - SINCE 1 KW OF 110 VAC UPS WILL SUPPLY 24 VDC EXISTING MARSHALLING SYSTEM, THEREFORE A CONVERTOR 110 VAC TO 24 VDC SHALL BE CONSIDERED BY VENDOR ON DISTRIBUTION PANEL OF UPS.
 - AT THE BID STAGE, VENDOR SHALL CONSIDER IF IT IS POSSIBLE TO CONNECT THE 1 KW DEMAND OF 24 VDC EXISTING TO DC LINK OR NOT. IF YES, THE NOTE IS WILL BE DELETED & ONLY CONVERTOR SHALL BE CONSIDERED.
 - DISTRIBUTION PANEL (DP-02) FOR 110 VAC WHICH WILL BE INSTALLED IN CONTROL ROOM, SHALL BE MANUFACTURED & CONSIDERED BY VENDOR.

- LEGEND**
- SHUNT
 - INVERTER
 - CHARGER
 - AC STABILIZER
 - STATIC SWITCH
 - BATTERY
 - SWITCH FUSE
 - MOULDED CASE CIRCUIT BREAKER
 - MINIATURE CIRCUIT BREAKER
 - FUSE
 - DIODE
 - CONTRACTOR
 - CABLE
 - ELECTRICAL CONNECTION
 - AMMETER
 - VOLTMETER
 - CURRENT TRANSFORMER
 - EARTH FAULT RELAY
 - OVER VOLTAGE RELAY
 - UNDER VOLTAGE RELAY
 - TRANSFORMER
 - FREQUENCY METER (DIGITAL TYPE)
 - SURGE ARRESTER
 - RADIO FREQUENCY INTERFACE

| REFERENCE DRAWING | DRO. No. |
|---------------------------------|-------------------------------|
| SPECIFICATION FOR UPS SYSTEM | BK-0NRA1-PEDCO-000-EL-SP-0003 |
| CALCULATION WORK FOR UPS SYSTEM | BK-0078-PEDCO-110-EL-CN-0002 |
| DATA SHEET FOR UPS | BK-0078-PEDCO-110-EL-DT-0002 |
| EXTENSION OF BINAK B/C MANIFOLD | |

| REV. | DESCRIPTION | CHECKED | REV. APPR. |
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PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES/ W0078 WHF & EXTENSION OF BINAK B/C

PROJECT NO.: 971020

EPC CONTRACTOR: HIRSHAN ENERGY - DESIGN & INSPECTION COMPANIES

EPC/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DATE: _____ DRAWING BY: _____ CHECKED BY: _____

DRAWING TITLE: UPS SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD

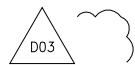
| SCALE | SIZE | DRAWING NO. | SHEET NO. | REV. | BUDGET REF. | LOCATION | SIZE | CLASS | SERIAL NO. | SHEET | REVISION |
|-------|------|------------------------------|-----------|------|--------------|----------|------|-------|------------|----------|----------|
| NTS | A0 | BK-0078-PEDCO-110-EL-SL-0002 | 03 OF 04 | 003 | 003-078-0104 | F | 2 | P | 708028 | 03 OF 04 | 003 |

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BINAK OILFIELD DEVELOPMENT SUB-SURFACE WORK PACKAGES W0078 WHF & EXTENSION OF BINAK B/C

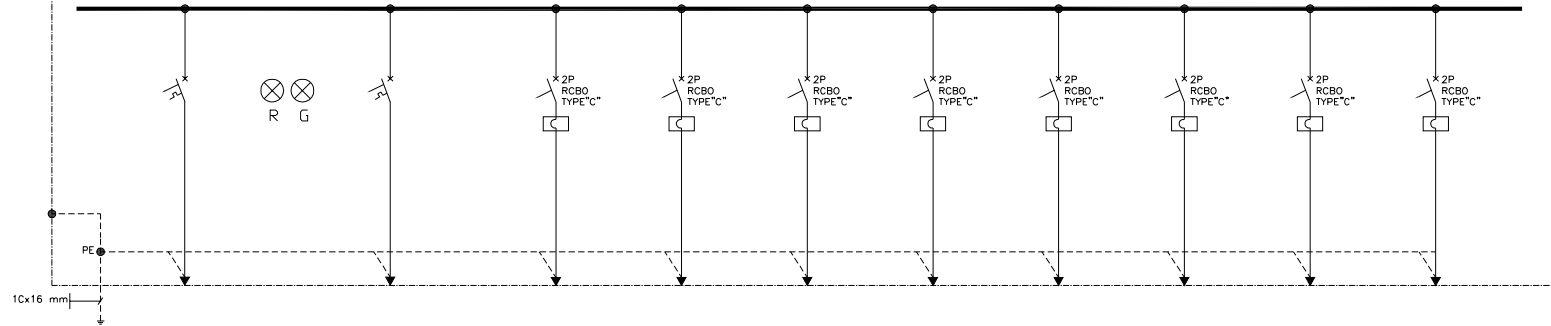
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: _____ DATE: _____



DP-02

110VAC, 80A, 10KA, 1SEC, 1PH+N+PE



CATEGORY

| CODE | F01 | F02 | F03 | F04 | F05 | F06 | F07 | F08 | F10 | F11 |
|-----------------------|-------------------------------------|-------------------------------------|-------------------------------|-------------------------------|---------------------------------------|-----------------------------|-----------------------------|----------|----------|----------|
| P (KW) | 5.92 KW | 5.92 KW | 1 KW | 0.7 KW | 0.6 KW | 0.6 KW | 0.6 KW | 0.6 KW | 1 KW | 1 KW |
| CB TYPE/RATING | MCCB/80A | MCCB/80A | RCBO/16A | RCBO/16A | RCBO/16A | RCBO/16A | RCBO/16A | RCBO/16A | RCBO/16A | RCBO/16A |
| CABLE SIZE | NOTE 6 | NOTE 6 | 2x6 | 2x6 | 2x6 | 2x6 | 2x6 | 2x6 | - | - |
| DESCRIPTION OF FEEDER | INCOMING FROM 110VAC UPS (INVERTER) | INCOMING FROM 110VAC UPS (INVERTER) | DCS SYSTEM & MARSHALING PANEL | ESD SYSTEM & MARSHALING PANEL | OPERATOR WORKSTATION MARSHALING PANEL | DCS ENGINEERING WORKSTATION | ESD ENGINEERING WORKSTATION | PRINTERS | SPARE | SPARE |

- NOTES**
- MANUAL BYPASS SWITCH SHALL BE CONSIDERED MAKE BEFORE BREAK TYPE.
 - THE OVERALL ALARM/FAULT SIGNAL SHALL BE SENT TO PROCESS CONTROL SYSTEM (PCS) PANEL BY DRY CONTACT.
 - OUTPUT FEEDERS TO PCS PANEL SHALL BE CONSIDERED DOUBLE AND SEPARATE.
 - AC STABILIZER SHALL BE CONSIDERED SERVO CONTROL TYPE.
 - UPS SHALL BE CONSIDERED 12 PULSE.
 - CABLE SIZES SHALL BE CONSIDERED AFTER FINALIZING "ELECTRICAL POWER & CONTROL CABLE LIST - EXTENSION OF BINAK B/C MANIFOLD" NOTK-INOT5-PEDCO-110-EL-CN-0002"
 - THIS SINGLE LINE DIAGRAM IS VALID FOR 110 VAC UPS.
 - ALL DEVICES SHALL BE SIZED BY VENDOR.
 - INTERLOCKS WILL BE PROVIDED TO INHIBIT BATTERY BOOST CHARGE IF BATTERY ROOM VENTILATION IS OUT OF SERVICE.
 - INTERLOCKS WILL BE PROVIDED TO ACTIVE BATTERY ROOM VENTILATION WHEN UPS IS ON BATTERY BOOST CHARGE MODE.
 - AUTOMATIC BATTERY ISOLATION FACILITY SHALL BE PROVIDED FOR INCOMING MOTOR BATTERY BANK. INCOMING MOTOR BATTERY BANK SHALL BE OPEN WHEN F&G SYSTEM SEND BATTERY ISOLATION SIGNAL TO THE UPS.
 - AN EARTH FAULT MONITORING SHALL BE CONSIDERED FOR EVERY 10 FEEDERS FOR EASY OF FINDING FAULTY BRANCH.
 - METERING AND PROTECTION SYSTEM SHALL BE COMPLETED BASED ON AC UPS SPECIFICATION AND DETAILED INFORMATION SHALL BE INDICATED ON VENDOR DRAWING.
 - THE BODY OF PANELS SHALL BE EARTHED DIRECTLY FROM TWO POINT
 - SINCE 1.5 KW OF 110 VAC UPS WILL SUPPLY 24 VDC EXISTING MARSHALING SYSTEM, THEREFORE A CONVERTOR 110 VAC TO 24 VDC SHALL BE CONSIDERED BY VENDOR ON DISTRIBUTION PANEL OF UPS.
 - AT THE BID STAGE, VENDOR SHALL CONSIDER IF IT IS POSSIBLE TO CONNECT THE 1.5 KW DEMAND OF 24 VDC EXISTING TO DC LINK OR NOT. IF YES, THE NOTE 15 WILL BE DELETED & ONLY CONVERTOR [1.5 KW, 24 VDC, 20 AMP, 200 WATT] SHALL BE CONSIDERED BY VENDOR.
 - DISTRIBUTION PANEL (DP-02) FOR 110 VAC WHICH WILL BE INSTALLED IN CONTROL ROOM, SHALL BE MANUFACTURED & CONSIDERED BY VENDOR.

LEGEND

- SHUNT
- INVERTER
- CHARGER
- AC STABILIZER
- STATIC SWITCH
- BATTERY
- SWITCH FUSE
- MOULDED CASE CIRCUIT BREAKER
- MINIATURE CIRCUIT BREAKER
- FUSE
- DIODE
- CONTRACTOR
- CABLE
- ELECTRICAL CONNECTION
- AMMETER
- VOLTMETER
- CURRENT TRANSFORMER
- EARTH FAULT RELAY
- OVER VOLTAGE RELAY
- UNDER VOLTAGE RELAY
- TRANSFORMER
- FREQUENCY METER (DIGITAL TYPE)
- SURGE ARRESTER
- RADIO FREQUENCY INTERFACE

| REFERENCE DRAWING | DRO. No. |
|---|------------------------------|
| SPECIFICATION FOR UPS SYSTEM | BK-0NRA-PEDCO-000-EL-SP-0003 |
| CALCULATION WORK FOR UPS SYSTEM EXTENSION OF BINAK B/C MANIFOLD | BK-0078-PEDCO-110-EL-CN-0002 |
| DATA SHEET FOR UPS EXTENSION OF BINAK B/C MANIFOLD | BK-0078-PEDCO-110-EL-DT-0002 |

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| DO5 | MAR.2023 | APC | ELHAKBA | M.FARHANI | M.MICROHARD | 00.00 | | | | | |
| DO2 | OCT.2022 | IFA | ELHAKBA | M.FARHANI | M.MICROHARD | 00.00 | 000.0000 | 00.00 | 000.0000 | 00.00 | 000.0000 |
| DO1 | SEP.2022 | IFA | ELHAKBA | M.FARHANI | M.MICROHARD | 00.00 | | | | | |
| DO0 | MAR.2022 | IPC | ELHAKBA | M.FARHANI | M.MICROHARD | 00.00 | | | | | |
| REV. | DATE | P.O.I.S | PREP. | CHK. | APP. | AUT. | | | | | |
| PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SUB-SURFACE WORK PACKAGES/ W0078 WHF & EXTENSION OF BINAK B/C | | | | | | | | | | | |
| PROJECT NO.: 971020 | | | | | | | | | | | |
| EPC CONTRACTOR: MIRGAN ENERGY - DESIGN & INSPECTION COMPANIES | | | | | | EPC/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY | | | | | |
| DRAWING TITLE: UPS SINGLE LINE DIAGRAM - EXTENSION OF BINAK B/C MANIFOLD | | | | | | | | | | | |
| NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED | | | | | | | | | | | |
| APPROVED FOR CONSTRUCTION BY: _____ DATE: _____ | | | | | | | | | | | |
| BUDGET REF. LOCATION SIZE CLASS SERIAL NO. REV. SHEET REVISION | | | | | | | | | | | |
| NTS AS BK-W0078-PEDCO-110-EL-EL-0002 04 OF 04 DO5 000-078-0104 F 2 P 708028 04 OF 04 DO5 | | | | | | | | | | | |

امل و کليه نسخ این نقشه و سى الفنىيى مشقلى به شرکت على مشقلى تته غير جنوب ميمايد
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BINAK OILFIELD DEVELOPMENT
SUB-SURFACE WORK PACKAGES
W0078 WHF & EXTENSION OF BINAK B/C