

ساخت موقعیت چاه، تاسیسات سرچاهی، خطوط جریانی، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک



شماره پیمان:

053 - 073 - 9184

Process Description - Extension of Binak B/C Manifold								ı
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه	
BK	W007S	PEDCO	110	PR	RT	0001	D00	ĺ

7 أن 1 از 7

طرح نگهداشت و افزایش تولید 27 مخزن

Process Description - Extension of Binak B/C Manifold

D00	FEB. 2023	IFC	M.Aryafar	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	Client Approval

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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



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1.0 INTRODUCTION

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

As a part of the Project, construction of well location, access road, wellhead facilities (with electric power supply) for W007S shall be done. In addition, construction of new flowline from aforementioned well location to Binak B/C unit (with extension of relevant manifold) are in the Project scope of work

GENERAL DEFINITION

The following terms shall be used in this document.

CLIENT:

National Iranian South Oilfields Company (NISOC)

PROJECT:

Binak Oilfield Development – Construction of Well Location, Wellhead Facilities, Electrification Facilities, Flowlines for W007S and Extension of Binak B/C

Manifold

EPD/EPC CONTRACTOR (GC): Petro Iran Development Company (PEDCO)

EPC CONTRACTOR: Joint Venture of : Hirgan Energy - Design &

Inspection(D&I) Companies

VENDOR: The firm or person who will fabricate the equipment or

material.

EXECUTOR: Executor is the party which carries out all or part of

construction and/or commissioning for the project.

THIRD PARTY INSPECTOR (TPI): The firm appointed by EPD/EPC CONTRACTOR (GC)

and approved by CLIENT (in writing) for the inspection

of goods.

SHALL: Is used where a provision is mandatory.

SHOULD: Is used where a provision is advisory only.

WILL: Is normally used in connection with the action by

CLIENT rather than by an EPC/EPD CONTRACTOR,

supplier or VENDOR.

MAY: Is used where a provision is completely discretionary.



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2.0 SCOPE

In this document, Purpose of the facilities is to construction of wellhead Facilities and extension of manifold for BINAK Oil Field.

3.0 NORMATIVE REFERENCES

3.1 THE PROJECT DOCUMENTS

BK-GNRAL-PEDCO-000-PR-DB-0001 Process Basis of Design
 BK-GNRAL-PEDCO-000-PR-DC-0001 Process Design Criteria
 BK-W007S-PEDCO-110-PR-PF-0001 Process Flow Diagram - Extension Of Binak

B/C Manifold

BK-W007S-PEDCO-110-PR-PI-0001
 P&ID - Extension of Binak B/C Manifold

3.2 ENVIRONMENTAL DATA

Refer to "Process Basis of Design; Doc. No. BK-GNRAL-PEDCO-000-PR-DB-0001".

3.3 ORDER OF PRECEDENCE

In case of any conflict between the contents of this document or any discrepancy between this document and other project documents or reference standards, this issue must be reported to the CLIENT. The final decision in this situation will be made by CLIENT

4.0 PROCESS DESCRIPTION

4.1 WELLHEAD AREA

Wellhead facilities for wells consist of the following utilities and equipment:

- Wellhead control system
- Wellhead valves and choke valve
- Stone trap

Each well is provided with a stone trap upstream of the choke valve. In order to avoid any sand carry overs, a stone trap is designed to eliminate sands that may have produced from well, the accumulated liquid in stone trap will be routed into the burn pit for emergency condition.

The well head burn pit is not equipped with ignition facilities and shall be ignited manually.



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The produced fluid from each well enters to the relevant stone trap firstly and then is routed through the choke valve in order to decrease pressure. The production flow from the crude wells is determined by choke valve at each well.

The wellheads are normally unmanned. Each wellhead has been furnished with a control system for controlling the surface safety valves (SSV) and subsurface safety valves (SSV).

The produced oil from BANGESTAN and ASMARI wells are transferred to the BINK manifold as following:

Table No.4-4.1: Asmari and Bangestan Wellhead Condition

WELL NO.	Minimum flow rate for well (bbl/day)	Maximum flow rate for well (bbl/day)	Wellhead Pressure (before Choke valve) (Barg)	Wellhead Shut-in Pressure (Barg)	Wellhead Temperature (before Choke valve) (°C)
W018S (AS)	500	1500	43.81	193.79	75
W008N (AS)	500	1500	43.81	193.79	75
W028	1500	2500	43.81	310.34	80
W035	1500	2500	43.81	310.34	80
W046S	1000	1500	43.81	310.34	80
W007S	500	1000	43.81	310.34	80
BINK 5	500	1000	43.81	-	-
BINK 12	500	1000	43.81	-	-
BINK 14	500	1000	43.81	-	-
BINK 15	500	1000	43.81	-	-

Note: Pressure at the flow line destination is considered 12.78 Barg

4.2 MANIFOLD AREA

On ESDV valves at inlet and outlet of manifolds are provided to isolate the manifold during emergency. PI and TI with high and low alarms and PSV are installed near inlet ESDV. There are test header and closed drain header in manifold.

The flow from any one well is switched from the production manifold to the test header using the manual valves provided.

Flow lines from wellhead area are transferred to Manifold area as bellow:



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WELL NO.	RESERVOIR	UTM COORDINATION	
		NORTHING	EASTING
W-018S	ASMARI	3291914	437440
W-008N	ASMARI	3291837	438713
W-028	BANGESTAN	3293091	437126
W-035	BANGESTAN	3293648	436604
W-046S	BANGESTAN	3294379	435604
W-007S	BANGESTAN	3290543	437425
BK-5	-	3286512	41725
BK-12	-	3288580	440692
BK-14	-	3295176	437805
BK-15	-	3287973	442385

5.0 UTILITY DESCRIPTION

Welhed area and manifold to be mechanized by utility and supporting systems as following:

- Oil sump pump (P-100)
- Diesel Oil Supply System
- Potable Water System

5.1 DIESEL OIL SUPPLY SYSTEM

Diesel oil is used as fuel for Emergency diesel power generators in the Binak Field. a diesel supply system consists of manifold daily diesel drum and Emergency diesel generator package is provided.

5.2 POTABLE WATER SYSTEM

The Potable Water System consists of elevated potable water storage tank. Potable water will be be filled by truck.

The potable water is distributed from the elevated storage tank to the users.

5.3 OIL SUMP PUMP (P-100)

The oil from oil sump is routed to to header A/B of manifold via oil sump pump (P-100).