



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



PROCESS DATA SHEETS FOR CLOSED DRAIN PUMPS

شماره پیمان:	پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۱ از ۳
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	PR	DT	0023	D05	

طرح نگهداشت و افزایش تولید ۲۷ مخزن

PROCESS DATA SHEETS FOR CLOSED DRAIN PUMPS

نگهداشت و افزایش تولید میدان نفتی بینک

D05	AUG.2024	AFC	M.Aryafar	M.Fakharian	M.Sadeghian	
D04	FEB.2023	AFC	M.Aryafar	M.Fakharian	M.Mehrshad	
D03	OCT.2022	IFA	M.Aryafar	M.Fakharian	M.Mehrshad	
D02	AUG.2022	IFA	M.Aryafar	M.Fakharian	M.Mehrshad	
D01	FEB.2022	IFC	M.Aryafar	M.Fakharian	M.Mehrshad	
D00	NOV.2021	IFC	M.Aryafar	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1

CLIENT Doc. Number:

F0Z-708767

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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شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0023	DT	PR	120	PEDCO	GCS	BK

شماره صفحه: ۳ از ۲

REVISION RECORD SHEET

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2	X	X	X	X	X	X	
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PROCESS DATA SHEETS FOR CLOSED DRAIN PUMPS

شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴

شماره صفحه: ۳ از ۳

نسخه

سریال

نوع مدرک

رشته

تسهیلات

صادر کننده

بسته کاری

پروژه

D05

0023

DT

PR

120

PEDCO

GCS

BK

1	Note		Rev
2	GENERAL DATA		
3	Type		
4	☒ Centrifugal ☐ Positive displacement		
5	☒ Centrifugal ☐ Horizontal ☐ Vertical		
6	☐ Positive displacement ☐ Reciprocating ☐ Rotary ☐ Metering		
7	Item P-2202 A/B	No. of Main/Stand By Units	1 / 1
8	Service Closed Drain Pumps	Installation (Indoor-Outdoor-Other)	Outdoor
9	Operation	☐ Continuous ☒ Discontinuous ☐ Parallel ☒ Single	
10	Type of Driver	Electrical Motor	
11	CHARACTERISTICS OF HANDLED LIQUID		
12	Type of Handled Liquid	HC	
13	Pumping Temp.e (Min. / Normal / Max.)	°C	/ 5 (worse case) / Note 1
14	Density at Min. / Norm / Max. Temp.	kg/m³	/ 980 /
15	Viscosity At Min. / Normal / Max. Temp.	cP	/ 0.46 /
16	Vapour Pressure at Max. Pumping Temp.	bara	1
17	Freezing Point / Pour Point	°C	
18	Dissolved Gas	Yes-No	
19	Corrosive / Erosive / Hazardous Agents / Flammable	Yes-No	Yes / Yes / Yes / Yes
20	Suspended solids (Type / Dimen. / Vol.%)	mm	/ /
21	OPERATING CONDITIONS		
22	Suction Pressure (Min/ Max.)	barg	0.2 / 0.50
23	Discharge Pressure at Rated Capacity	barg	7
24	Differential Pressure at Rated Capacity	bar	7
25	Capacity (Min. / Normal / Rated)	m³/hr	/ 3 / 3.3 Note 3
26	Head at Rated Capacity	m	72.8
27	NPSH Available	m	2.5
28	Max Allowable Pressure at Shut-Off	barg	14.50 Note 16
29	Hydraulic Power	kW	0.6
30	Reacceleration	Yes-No	No
31	Automatic Start-Up	Yes-No	No
32	Start-Up with Delivery Valve	☒ Open ☐ Close	
33	Flow Controlled By	☐ Pressure Controller ☐ Level Controller ☐ Flow Controller ☒ Other	
34	DESIGN CONDITIONS		
35	Design Temperature: Min / Max	°C	5 / 85
36	Design Pressure	barg	14.50 Note 16
37	MECHANICAL DATA		
38	Contamination of Liquid Handled Allowed	Yes-No	Yes
39	Air Entrainment Allowed	Yes-No	No
40	Leaks Allowed	Yes-No	No Note 7
41	Antifreezing Protection	Yes-No	No
42	Suction Line: Diameter	in	2"
43	Discharge Line: Diameter	in	2"
44	Mat. in Contact with Liq. Handled (Min.)		API610/S6 Note 6

Note

1

Pumping fluid might be hydrocarbon, water or a mixture of both.

2

Deleted

3

Design (rated) flow rates is 110 % of normal flow rate.

4

Deleted

5

Deleted

6

The material shall be in compliance with NACE MR0175/ISO15156 and Specification For Material Requirements in Sour service Document No. BK-GNRL-PEDCO-000-PI-SP-0008

7

(Vendor to confirm)

8

Liquid saturated at operating temperature.

9

Applicable standards are: API610, IPS-G-PM-105, IPS-E-EL-131, IPS-E-EL-132.(Latest revision)

10

Refer to hazardous area classification layout, all instrumentation and electrical devices shall be suitable for: ZONE 1 & Gas group IIB, Temperature class T3

11

Margin between NPSHA and NPSHR shall not be less than 1 m.

12

For P&ID refer to BK-GCS-PEDCO-120-PR-PI-0017

13

Minimum Design Metal Tem (MDMT) = 5

14

About the operation of the two pumps (A/B) it should be noted that if liquid level of V-2202 reaches H1 level,lead pump will be started.in case of H2 level alarm,lag pump will be started.Refer to (BK-GCS-PEDCO-120-PR-PI-0017)

15

H2S (ppm) at winter 465.5611 & H2S (ppm) at summer 861.4594

16

Design pressure of the suction vessel+ liquid height at vessel HLL at pump suction + pump differential pressure at rated flow of the pump

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