



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 1 از 11
	BK	GCS	PEDCO	120	IN	DT	0014	D04	

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR CORROSION COUPON/ PROBE

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
D04	JAN.2025	IFA	P.Hajisadeghi	M.Fakharian	S.Faramarzpour	
D03	AUG.2023	IFA	P.Hajisadeghi	M.Fakharian	A.M.Mohseni	
D02	MAR.2023	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D01	NOV.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	MAR.2022	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	

Class: 1

CLIENT Doc. Number: F9Z-708935

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



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 2 از 11
	BK	GCS	PEDCO	120	IN	DT	0014	D04	

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04	Page	D00	D01	D02	D03	D04
1	X	X	X	X	X	65					
2	X	X	X	X	X	66					
3	X	X	X			67					
4	X	X		X		68					
5	X	X		X		69					
6	X	X	X	X	X	70					
7	X	X	X	X	X	71					
8	X	X	X	X	X	72					
9		X	X	X	X	73					
10		X	X	X	X	74					
11		X	X	X	X	75					
12						76					
13						77					
14						78					
15						79					
16						80					
17						81					
18						82					
19						83					
20						84					
21						85					
22						86					
23						87					
24						88					
25						89					
26						90					
27						91					
28						92					
29						93					
30						94					
31						95					
32						96					
33						97					
34						98					
35						99					
36						100					
37						101					
38						102					
39						103					
40						104					
41						105					
42						106					
43						107					
44						108					
45						109					
46						110					
47						111					
48						112					
49						113					
50						114					
51						115					
52						116					
53						117					
54						118					
55						119					
56						120					
57						121					
58						122					
59						123					
60						124					
61						125					
62						126					
63						127					
64						128					




 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 	
	DATA SHEETS FOR CORROSION COUPON/ PROBE								
شماره پیمان: 053 - 073 - 9184	پروژه BK	بسته کاری GCS	صادرکننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0014	نسخه D04	شماره صفحه: 3 از 11

Table of Contents:

DESCRIPTION	P&ID NUMBER	SHEET NUMBER
COVER		1
REVISION RECORD SHEET		2
TABLE OF CONTENTS		3
REFERENCE		4
GENERAL NOTES		5
CC (1): CC-2101 CC-2102 CC-2211	BK-GCS-PEDCO-120-PR-PI-0002 BK-GCS-PEDCO-120-PR-PI-0003 BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)	6
CC (2): CC-2112 CC-2141 CC-2271	BK-GCS-PEDCO-120-PR-PI-0005 BK-GCS-PEDCO-120-PR-PI-0012 BK-GCS-PEDCO-120-PR-PI-0022	7
CC (3): CC-2151 CC-2162 -	BK-GCS-PEDCO-120-PR-PI-0013 BK-GCS-PEDCO-120-PR-PI-0014	8
CP (1): CP-2101 CP-2102 CP-2211	BK-GCS-PEDCO-120-PR-PI-0002 BK-GCS-PEDCO-120-PR-PI-0003 BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)	9
CP (2): CP-2112 CP-2141 CP-2271	BK-GCS-PEDCO-120-PR-PI-0005 BK-GCS-PEDCO-120-PR-PI-0012 BK-GCS-PEDCO-120-PR-PI-0022	10
CP (3): CP-2151	BK-GCS-PEDCO-120-PR-PI-0013	11



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 4 از 11
	BK	GCS	PEDCO	120	IN	DT	0014	D04	

REFERENCE DOCUMENTS :

Specification For Instrumentation	BK-GNRAL-PEDCO-000-IN-SP-0001
Process Basis Of Design	BK-GNRAL-PEDCO-000-PR-DB-0001
Piping Material Specification	BK-GCS-PEDCO-120-PI-SP-0001
Hazardous Area Classification Layout	BK-GCS-PEDCO-120-SA-PY-0002
Instrument & Control System Design Criteria	BK-GCS-PEDCO-120-IN-DC-0002
Mechanical Data Sheets For Lean Glycol Storage Tank	BK-GCS-PEDCO-120-ME-DT-0016
Symbol & Legend For PFD and P&ID	BK-GCS-PEDCO-120-PR-PI-0001
P&ID - Gas Compression Inlet Gas Pipeline (Binak)	BK-GCS-PEDCO-120-PR-PI-0002
P&ID - Gas Compression Inlet Gas Pipeline (Golkhari)	BK-GCS-PEDCO-120-PR-PI-0003
P&ID - Slug Catcher System	BK-GCS-PEDCO-120-PR-PI-0004
P&ID - Gas Compression Inlet Knock Out Drum	BK-GCS-PEDCO-120-PR-PI-0005
P&ID - 1st Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0006
P&ID - 1st Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0007
P&ID - 1st Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0008
P&ID - 2nd Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0009
P&ID - 2nd Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0010
P&ID - 2nd Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0011
P&ID - 2nd Stage Gas Compression Discharge Drum	BK-GCS-PEDCO-120-PR-PI-0012
P&ID - Gas Compression Dehydration Package	BK-GCS-PEDCO-120-PR-PI-0013
P&ID - Lean Glycol Storage Tank	BK-GCS-PEDCO-120-PR-PI-0014
P&ID - Instrument & Plant Air System	BK-GCS-PEDCO-120-PR-PI-0015
P&ID - Nitrogen Generation System	BK-GCS-PEDCO-120-PR-PI-0016
P&ID - Close Drain System	BK-GCS-PEDCO-120-PR-PI-0017
P&ID - Corrosion Inhibitor Package	BK-GCS-PEDCO-120-PR-PI-0018
P&ID - Methanol Injection Package	BK-GCS-PEDCO-120-PR-PI-0019
P&ID - LP Flare System	BK-GCS-PEDCO-120-PR-PI-0020
P&ID - Oily Water Sewer	BK-GCS-PEDCO-120-PR-PI-0021
P&ID - Fuel Gas System	BK-GCS-PEDCO-120-PR-PI-0022
P&ID - Diesel Oil System	BK-GCS-PEDCO-120-PR-PI-0023
P&ID - Potable Water System	BK-GCS-PEDCO-120-PR-PI-0024
P&ID - Glycol Sump Drum	BK-GCS-PEDCO-120-PR-PI-0025
P&ID - Fire Water Network	BK-GCS-PEDCO-120-SA-PI-0001
P&ID - Total Flooding System For Extension of Existing Elect. Building	BK-GCS-PEDCO-120-SA-PI-0002



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 5 از 11
	BK	GCS	PEDCO	120	IN	DT	0014	D04	

GENERAL NOTES:

- Licensed software for probes and training Courses for End User engineering department shall be considered by vendor.
- One set of retriever tool kit and service valve and also other part necessary for mounting of all corrosion coupon and probes shall be provided by vendor. This set of retriever and service valve is common to all CC/CP's fittings. Also any calibration set or special tools for test and installation shall be provided by vendor, as minimum on set portable corrosion meter for local monitoring of probes to be considered.

- Environmental Condition For Field Instrumentation of BINAK Complex Shall Be Considered As Per The Following:

Maximum ambient temperature: 50 (°C)
 Minimum ambient temperature: -5 (°C)
 Maximum steel surface exposed to sun: 85 (°C)
 Maximum summer dry bulb: - (°C)
 DB/RH for Summer HVAC Design: 41 °C / 61 %
 DB FOR Winter HVAC Design: 6 °C

Relative Humidity:

- Maximum Design relative humidity (%): 100
- Minimum Design relative humidity (%): 0




- Training Courses for Installation, Calibration, ... of corrosion transmitters shall be considered by vendor.
- Considering the fluid corrosibility, the Element material shall be in accordance with pipe material.
- All recommendations of IPS-I-TP-802 and NACE RP0775 for corrosion monitoring devices and accessories installation shall be followed by vendor.
- Service valve & retriever system to be have below specification:
 - Suitable connection for 2" Access fitting
 - Isolating Valve
 - Drain Plug
 - Pressure Gauge
 - Retriever/Service Valve Seal Kit
 - Retriever/Service valve Repair Kit
 - Diverter Hose Assembly, Retainer Clamp, Safety Hammer, Head Bar , Back Pressure Pump
 - To be suitable for 40 barg design pressure B38 (suitable for high pressure) and 85° C design temperature.
- Mounting Position for Gas services should be at 12 O'clock Position for easy maintenance.
- Wetted part material shall be according to NACE MR 01-175 where required as per piping material standard.
- Regarding protection of pipeline transportation system, ISO 15589 standards to be followed.
- Electrical Resistance (ER) or Linear Polarization Resistance (LPR) methods shall be used in corrosion probes. Ultrasonic Examination, Acoustic Emission and other methods may be used individually or in combination with other methods if the Vendor advises. No local electrical power exists for these probes.

One Portable meter (shall be provided by vendor (To measure the Resistance of the probe periodically). This meter is common to all CP's fittings. Also any calibration set or special tools for test and installation shall be provided by vendor.

- Tag plate as per Specification for Instrumentation, shall be stainless steel 304 SS (VTC). Following details shall be engraved on them:

- Tag Number
- Range Limit
- Service
- Manufacture Model

- As per Mechanical Data Sheets For Lean Glycol Storage Tank Doc. No. "BK-GCS-PEDCO-120-ME-DT-0016_D02", the elevation of CC flange on TK-2102 (from center of flange to ground level) is 1200mm. This elevation to be considered by vendor during retriever system selection

 NISOC		تکهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک						 		
		DATA SHEETS FOR CORROSION COUPON/ PROBE								
شماره پیمان: 053 - 073 - 9184		پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدارک	سریال	نسخه	شماره صفحه: 6 از 11
		BK	GCS	PEDCO	120	IN	DT	0014	D04	
GENERAL	1	TAG NO		CC-2101		CC-2102		CC-2111		
	2	P&ID NO.		BK-GCS-PEDCO-120-PR-PI-0002-D06		BK-GCS-PEDCO-120-PR-PI-0003-D06		BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2)-D06		
	3	SERVICE		TO INLET K.O. DRUM (V-2105)		TO SLUG CATCHER (V-2104)		AFTER SLUG CATCHER DRUM (V-2104) TO INLET K.O. DRUM (V-2105)		
	4	LINE NO.		GAS-111-0001-AN07-6"-PT		GAS-111-0001-FN07-8"-PT		GAS-111-0019-AN07-8"-PT		
	5	LINE SIZE / SCHEDULE		6" , SCH.80 (Note 4)		8" , SCH.100 (Note 4)		8" , SCH.60 (Note 4)		
	6	LINE/EQUIPMENT MATERIAL		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	7	PIPING CLASS		AN07 (Note 4)		FN07 (Note 4)		AN07 (Note 4)		
	8	AREA CLASSIFICATION		N/A		D04		N/A		
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)		Required		Required		Required		
PROCESS DATA (NOTE 1)	10	FLUID		GAS/Liquid		GAS/Liquid		GAS/Liquid		
	11	PHASE		2 phase (Water/Vapour)		2 phase (Water/Vapour)		2 phase (Water/Vapour)		
	12	DESIGN PRESSURE (barg)		18.2		90		18.2		
	13	OPERATING PRESSURE (barg)		7.5		7.5		5.3		
	14	DESIGN TEMPERATURE (°C)		85		D04		175		
	15	MIN DESIGN METAL TEMPERATURE (°C)		5		5		5		
	16	OPERATING TEMPERATURE (°C)		46.11/26.67		32/15.5		31.86/15.35		
	17	MAX FLOW (Kg/hr)		7220.4		12395.9308		12395.9308		
	18	NORMAL FLOW (Kg/hr)		6564		11269.028		11269.028		
	19	MEAN VELOCITY (m/s)		14.68		9.9		15.79		
	20	VISCOSITY (cP)		0.01		0.01		-		
	21	DENSITY (kg/m3)		6.66		6.21 ~1000		6.16		
	22	PIPING CORROSION ALLOWANCE (mm)		6		6		6		
	23	WATER CUT		-		-		-		
24	RATE OF CO2 CONTENT (SUM/WIN)		0.0345/0.0167 mole fraction in gas phase		0.0301/0.0296 mole fraction in gas phase		0.0562/0.0296 mole fraction in gas phase			
25	RATE OF CHLORIDE CONTENT		-		-		-			
26	VELOCITY		16.15		16.15		17.17			
PROBE & TRANSMITTER	27	PROBE TYPE		N/A		N/A		N/A		
	28	PROBE INSERTION LENGTH		N/A		N/A		N/A		
	29	PROBE HOLDER		N/A		N/A		N/A		
	30	MATERIAL		N/A		N/A		N/A		
	31	MOUNTING POSITION		N/A		N/A		N/A		
	32	ENCLOSURE MATERIAL		N/A		N/A		N/A		
	33	MEASURING RANGE		N/A		N/A		N/A		
	34	OUTPUT SIGNAL		N/A		N/A		N/A		
	35	COMMUNICATION PROTOCOL		N/A		N/A		N/A		
	36	POWER SUPPLY		N/A		N/A		N/A		
	37	ACCURACY		N/A		N/A		N/A		
	38	INTEGRAL INDICATOR		N/A		N/A		N/A		
	39	Ex PROTECTION		N/A		N/A		N/A		
	40	INGRESS PROTECTION		N/A		N/A		N/A		
	41	CABLE ENTRY		N/A		N/A		N/A		
	42	-								
COUPON	43	COUPON TYPE		Ladder Strip(VTA)		Ladder Strip(VTA)		Ladder Strip(VTA)		
	44	COUPON MATERIAL		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	45	COUPON HOLDER (Note 6)		Yes		Yes		Yes		
	46	HOLDER MATERIAL		316 S.S as minimum		316 S.S as minimum		316 S.S as minimum		
	47	HOLDER LENGTH		VTA		VTA		VTA		
	48	COUPON INSERTION LENGTH		VTA		VTA		VTA		
	49	WETTED PART MATERIAL		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	50	STYLE		Retrievable (VTC)		Retrievable (VTC)		Retrievable (VTC)		
ACCESS FITTING (Note 5 & Note 6)	51	PROCESS CONNECTION		2", Flare Weld Type at 12'O Clock (Note 8 in General Note)		2", Flare Weld Type at 12'O Clock (Note 8 in General Note)		2", Flare Weld Type at 12'O Clock (Note 8 in General Note)		
	52	MOUNTING POSITION		(Note 2)		(Note 2)		(Note 2)		
	53	BRANCH STANDOUT LENGTH		Solid Plug		Solid Plug		Solid Plug		
	54	FITTING PLUG		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	55	MATERIAL		Required		Required		Required		
	56	PROTECTIVE COVER		Required (Note 3)		Required (Note 3)		Required (Note 3)		
	57	RETRACTABLE TOOL		Required (Note 3)		Required (Note 3)		Required (Note 3)		
	58	SERVICE VALVE		will be finalized later		will be finalized later		will be finalized later		
OTHER	59	MANUFACTURE		will be finalized later		will be finalized later		will be finalized later		
	60	MODEL NO.		will be finalized later		will be finalized later		will be finalized later		
	61	TAG PLATE (General Note 12)		Required		Required		Required		
	62	WAKE FREQUENCY STANDARD (NOTE 2)		Required as per ASME PTC		Required as per ASME PTC		Required as per ASME PTC		
NOTES : VTA : VENDOR TO ADVISE VTC : VENDOR TO CONFIRM N/A : NOT APPLICABLE (1) All process data will be finalized later (2) Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor. (3) One set of retriever and service valve is common to all CC's fittings. (4) Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document. (5) High pressure access fitting to be supplied by vendor. (6) Length of stem holder for installation in 120'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.										



NISOC

تکدهاست و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان:	روزه	آبته کاری	صادر کننده	تهیات	رشته	نوع مدرک	سرال	نسخه	شماره صفحه: 7 از 11 D04
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0014	D04	

	TAG NO	CC-2112		CC-2141		CC-2271	
		BK-GCS-PEDCO-120-PR-PI-0005-D06	BK-GCS-PEDCO-120-PR-PI-0012-D06	BK-GCS-PEDCO-120-PR-PI-0012-D06	BK-GCS-PEDCO-120-PR-PI-0022-D06		
GENERAL	1	AFTER INLET KNOCK OUT DRUM (V-2105)		ABOVE THE GAS COMPRESSION DISCHARGE DRUM (V-2103)		ABOVE THE FUEL GAS K.O. DRUM (V-2205)	
	2	GAS-111-0025-AN07-10"-PT		GAS-111-0066-FN05-6"-PT		FLG-112-0110-AN07-4"-PT	
	3	10" , SCH.40 (Note 4)		6" , SCH.80 (Note 4)		4" , SCH.80 (Note 4)	
	4	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)	
	5	AN07 (Note 4)		FN05 (Note 4)		AN07 (Note 4)	
	6	N/A		N/A		N/A	
	7	Required		Required		Required	
	8	GAS		GAS		FUEL GAS	
	9	1 phase (Vapour)		1 phase (Vapour)		1 phase (Vapour)	
	10	18.2		90		18.2	
	11	5.1		53.9		4.9	
	12	85		175		85	
	13	5		5		5	
	14	36.92/19.02		59.89/59.90		36.7	
	15	19616.421		18977.739		556.38	
	16	17833.11		17252.49		505.8	
	17	16.31		4.34		10.87	
	18	0.011		0.01		0.01	
	19	5.96		59.17		5.96	
	20	6		3		6	
	21	-		-		-	
	22	0.0316/0.0252 mole fraction in gas phase		0.0318/0.0252 mole fraction in gas phase		0.0316/0.0252 mole fraction in gas phase	
	23	-		-		-	
	24	17.94		4.76		11.24	
	25	N/A		N/A		N/A	
	26	N/A		N/A		N/A	
	27	N/A		N/A		N/A	
	28	N/A		N/A		N/A	
	29	N/A		N/A		N/A	
	30	N/A		N/A		N/A	
	31	N/A		N/A		N/A	
	32	N/A		N/A		N/A	
	33	N/A		N/A		N/A	
	34	N/A		N/A		N/A	
	35	N/A		N/A		N/A	
	36	N/A		N/A		N/A	
	37	N/A		N/A		N/A	
	38	N/A		N/A		N/A	
	39	N/A		N/A		N/A	
	40	N/A		N/A		N/A	
	41	N/A		N/A		N/A	
	42	-		-		-	
	43	Ladder Strip(VTA)		Ladder Strip(VTA)		Ladder Strip(VTA)	
	44	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)	
	45	Yes		Yes		Yes	
	46	316 S.S as minimum		316 S.S as minimum		316 S.S as minimum	
	47	VTA		VTA		VTA	
	48	VTA		VTA		VTA	
	49	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)	
	50	Retrievable (VTC)		Retrievable (VTC)		Retrievable (VTC)	
	51	2", Flare Weld Type		2", Flare Weld Type		2", Flare Weld Type (Note 7)	
	52	at 12'O Clock (Note 8 in General Note)		at 12'O Clock (Note 8 in General Note)		at 12'O Clock (Note 8 in General Note)	
	53	(Note 2)		(Note 2)		(Note 2)	
	54	Solid Plug		Solid Plug		Solid Plug	
	55	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)	
	56	Required		Required		Required	
	57	Required (Note 3)		Required (Note 3)		Required (Note 3)	
	58	Required (Note 3)		Required (Note 3)		Required (Note 3)	
	59	will be finalized later		will be finalized later		will be finalized later	
	60	will be finalized later		will be finalized later		will be finalized later	
	61	Required		Required		Required	
	62	Required as per ASME PTC		Required as per ASME PTC		Required as per ASME PTC	

NOTES :

VTA : VENDOR TO ADVISE

VTC : VENDOR TO CONFIRM

N/A : NOT APPLICABLE

- All process data will be finalized later
- Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- One set of retriever and service valve is common to all CC's fittings.
- Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.
- High pressure access fitting to be supplied by vendor.
- Length of stem holder for installation in 120 'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.
- Pipe shall be expanded to 4" for CC installation (expansion size shall be confirmed by vendor).



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض
احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک






DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان:	پروژه	بسته کاری	صادر کننده	تهیه کننده	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 8 از 11
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0014	D04	

GENERAL	1	TAG NO	CC-2151	CC-2162
	2	P&ID NO.	BK-GCS-PEDCO-120-PR-PI-0013-D06	BK-GCS-PEDCO-120-PR-PI-0014-D06
	3	SERVICE	AFTER DEHYDRATION PACKAGE (PK-2101)	LEAN GLYCOL STORAGE TANK (TK-2102)
	4	LINE NO.	GAS-111-0179-FN05-6"-PT	-
	5	LINE SIZE / SCHEDULE	6" , SCH.80 (Note 4)	-
	6	LINE/EQUIPMENT MATERIAL	ASTM A106 Gr.B (Note 4)	A-283 GR.C
	7	PIPING CLASS	FN05 (Note 4)	AN04 (Note 4)
	8	AREA CLASSIFICATION	N/A	N/A
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	-
PROCESS DATA (NOTE 1)	10	FLUID	GAS	LIQUID
	11	PHASE	1 phase (Vapour)	1 phase (Liquid)
	12	DESIGN PRESSURE (barg)	90	full of liquid +160 mbarg/-7 mbarg
	13	OPERATING PRESSURE (barg)	52.9	0.1
	14	DESIGN TEMPERATURE (°C)	175	85
	15	MIN DESIGN METAL TEMPERATURE (°C)	5	5
	16	OPERATING TEMPERATURE (°C)	59.40/59.36	AMB
	17	MAX FLOW (Kg/hr)	18887.9	5500
	18	NORMAL FLOW (Kg/hr)	17170.8	5000
	19	MEAN VELOCITY (m/s)	4.408	0.65
	20	VISCOSITY (cP)	0.011	0.54
	21	DENSITY (kg/m ³)	58.06	988.2
	22	PIPING CORROSION ALLOWANCE (mm)	3	3
	23	WATER CUT	-	-
24	RATE OF CO ₂ CONTENT (SUM/WIN)	0.0319/0.0253 mole fraction in gas phase	0.0319/0.0253 mole fraction in gas phase	
25	RATE OF CHLORIDE CONTENT	-	-	
26	VELOCITY	4.85	0.56	
PROBE & TRANSMITTER	27	PROBE TYPE	N/A	N/A
	28	PROBE INSERTION LENGTH	N/A	N/A
	29	PROBE HOLDER	N/A	N/A
	30	MATERIAL	N/A	N/A
	31	MOUNTING POSITION	N/A	N/A
	32	ENCLOSURE MATERIAL	N/A	N/A
	33	MEASURING RANGE	N/A	N/A
	34	OUTPUT SIGNAL	N/A	N/A
	35	COMMUNICATION PROTOCOL	N/A	N/A
	36	POWER SUPPLY	N/A	N/A
	37	ACCURACY	N/A	N/A
	38	INTEGRAL INDICATOR	N/A	N/A
	39	Ex PROTECTION	N/A	N/A
	40	INGRESS PROTECTION	N/A	N/A
	41	CABLE ENTRY	N/A	N/A
	42	-		
COUPON	43	COUPON TYPE	Ladder Strip(VTA)	Strip
	44	COUPON MATERIAL	ASTM A106 Gr.B (Note 4)	A-283 GR.C
	45	COUPON HOLDER (Note 6)	Yes	Yes
	46	HOLDER MATERIAL	316 S.S as minimum	316 S.S as minimum
	47	HOLDER LENGTH	VTA	VTA
	48	COUPON INSERTION LENGTH	VTA	VTA
	49	WETTED PART MATERIAL	ASTM A106 Gr.B (Note 4)	A-283 GR.C
	50	STYLE	Retrievable (VTC)	Retrievable (VTC)
ACCESS FITTING (Note 5)	51	PROCESS CONNECTION	2", Flare Weld Type	2", Flange 300RF
	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)	Vessel Side Mounted
	53	BRANCH STANDOUT LENGTH	(Note 2)	(Note 2)
	54	FITTING PLUG	Solid Plug	Solid Plug
	55	MATERIAL	ASTM A106 Gr.B (Note 4)	A-283 GR.C
	56	PROTECTIVE COVER	Required	Required
	57	RETRACTABLE TOOL	Required (Note 3)	Required (Note 3)
	58	SERVICE VALVE	Required (Note 3)	Required (Note 3)
OTHER	59	MANUFACTURE	will be finalized later	will be finalized later
	60	MODEL NO.	will be finalized later	will be finalized later
	61	TAG PLATE (General Note 12)	Required	Required
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC	Required as per ASME PTC 19.3

NOTES : VTA : VENDOR TO ADVISE VTC : VENDOR TO CONFIRM N/A : NOT APPLICABLE

- All process data will be finalized later
- Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- One set of retriever and service valve is common to all CC's fittings.
- Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.
- High pressure access fitting to be supplied by vendor.
- Length of stem holder for installation in 120 'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.

		تگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک						 			
		DATA SHEETS FOR CORROSION COUPON/ PROBE									
شماره پیمان: 053 - 073 - 9184		روزه	بسته کاری	صادر کننده	تهیه کننده	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 9 از 11	
		BK	GCS	PEDCO	120	IN	DT	0014	D04		
GENERAL	1	TAG NO	CP-2101		CP-2102		CP-2111				
	2	P&ID NO.	BK-GCS-PEDCO-120-PR-PI-0002-D06		BK-GCS-PEDCO-120-PR-PI-0003-D06		BK-GCS-PEDCO-120-PR-PI-0004-D06(1 of 2)				
	3	SERVICE	TO INLET K.O. DRUM (V-2105)		TO SLUG CATCHER (V-2104)		AFTER SLUG CATCHER DRUM (V-2104) TO INLET K.O. DRUM (V-2105)				
	4	LINE NO.	GAS-111-0001-AN07-6"-PT		GAS-111-0001-FN07-8"-PT		GAS-111-0019-AN07-8"-PT				
	5	LINE SIZE / SCHEDULE	6" , SCH.80 (Note 4)		8" , SCH.100 (Note 4)		8" , SCH.60 (Note 4)				
	6	LINE/EQUIPMENT MATERIAL	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)				
	7	PIPING CLASS	AN07 (Note 4)		FN07 (Note 4)		AN07 (Note 4)				
	8	AREA CLASSIFICATION	Zone 2, IIB T4		N/A		Zone 2, IIB T4				
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required		Required		Required				
PROCESS DATA (NOTE 1)	10	FLUID	GAS/Liquid		GAS/Liquid		GAS/Liquid				
	11	PHASE	2 phase (Water/Vapour)		2 phase (Water/Vapour)		2 phase (Water/Vapour)				
	12	DESIGN PRESSURE (barg)	18.2		90		18.2				
	13	OPERATING PRESSURE (barg)	7.5		7.5		5.3				
	14	DESIGN TEMPERATURE (°C)	85		175		85				
	15	MIN DESIGN METAL TEMPERATURE (°C)	5		5		5				
	16	OPERATING TEMPERATURE (°C)	46.11/26.67		32/15.5		31.86/15.35				
	17	MAX FLOW (Kg/hr)	7220.4		12395.9308		12395.9308				
	18	NORMAL FLOW (Kg/hr)	6564		11269.028		11269.028				
	19	MEAN VELOCITY (m/s)	14.68		9.9		15.79				
	20	VISCOSITY (cP)	0.01		0.01		-				
	21	DENSITY (kg/m3)	6.66		6.21 ~1000		6.16				
	22	PIPING CORROSION ALLOWANCE (mm)	6		6		6				
	23	WATER CUT	-		-		-				
	24	RATE OF CO2 CONTENT (SUM/WIN)	0.0345/0.0167 mole fraction in gas phase		0.0301/0.0296 mole fraction in gas phase		0.0562/0.0296 mole fraction in gas phase				
25	RATE OF CHLORIDE CONTENT	-		-		-					
26	VELOCITY	16.15		16.15		17.17					
27	PROBE TYPE	VTA		VTA		VTA					
PROBE & TRANSMITTER	28	PROBE INSERTION LENGTH	VTA		VTA		VTA				
	29	PROBE HOLDER	Yes		Yes		Yes				
	30	MATERIAL	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)				
	31	MOUNTING POSITION	Top of line		Top of line		Top of line				
	32	ENCLOSURE MATERIAL	VTA		VTA		VTA				
	33	MEASURING RANGE	VTA		VTA		VTA				
	34	OUTPUT SIGNAL	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)				
	35	COMMUNICATION PROTOCOL	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)				
	36	POWER SUPPLY	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)				
	37	ACCURACY	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)				
	38	INTEGRAL INDICATOR	No		No		No				
39	Ex PROTECTION	Eex "ia"		Eex "ia"		Eex "ia"					
40	INGRESS PROTECTION	IP 65		IP 65		IP 65					
41	CABLE ENTRY	ISO M20 x 1.5		ISO M20 x 1.5		ISO M20 x 1.5					
42	STYLE	Retrievable Type (VTC)		Retrievable Type (VTC)		Retrievable Type (VTC)					
COUPON	43	COUPON TYPE	N/A		N/A		N/A				
	44	COUPON MATERIAL	N/A		N/A		N/A				
	45	COUPON HOLDER (Note 6)	N/A		N/A		N/A				
	46	HOLDER MATERIAL	N/A		N/A		N/A				
	47	HOLDER LENGTH	N/A		N/A		N/A				
	48	COUPON INSERTION LENGTH	N/A		N/A		N/A				
	49	STYLE	N/A		N/A		N/A				
ACCESS FITTING (Note 5 & Note 6)	51	PROCESS CONNECTION	2", Flare Weld Type		2", Flare Weld Type		2", Flare Weld Type				
	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)		at 12'O Clock (Note 8 in General Note)		at 12'O Clock (Note 8 in General Note)				
	53	BRANCH STANDOUT LENGTH	(Note 2)		(Note 2)		(Note 2)				
	54	FITTING PLUG	Hollow Plug		Hollow Plug		Hollow Plug				
	55	MATERIAL	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)				
	56	PROTECTIVE COVER	Required		Required		Required				
	57	RETRACTABLE TOOL	Required (Note 3)		Required (Note 3)		Required (Note 3)				
	58	SERVICE VALVE	Required (Note 3)		Required (Note 3)		Required (Note 3)				
OTHER	59	MANUFACTURE	will be finalized later		will be finalized later		will be finalized later				
	60	MODEL NO.	will be finalized later		will be finalized later		will be finalized later				
	61	TAG PLATE (General Note 12)	Required		Required		Required				
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC		Required as per ASME PTC		Required as per ASME PTC				
NOTES :		VTA : VENDOR TO ADVISE			VTC : VENDOR TO CONFIRM			N/A : NOT APPLICABLE			
		(1) All process data will be finalized later (2) Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor. (3) One set of retriever and service valve is common to all CC's fittings. (4) Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document. (5) High pressure access fitting to be supplied by vendor. (6) Length of stem holder for installation in 120° clock due to liquid service, to be the way that measure the corrosion at the bottom of line.									



NISOC

تکدهاست و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان:	روزه	آبته کاری	صادر کننده	تهیهات	رشته	نوع مدرک	سرال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0014	D04

شماره صفحه: 10 از 11

	TAG NO	CP-2112		CP-2141		D04		CP-2271
		BK-GCS-PEDCO-120-PR-PI-0005-D06	BK-GCS-PEDCO-120-PR-PI-0012-D06	BK-GCS-PEDCO-120-PR-PI-0012-D06	BK-GCS-PEDCO-120-PR-PI-0022-D06			
GENERAL	1	AFTER INLET KNOCK OUT DRUM (V-2105)		ABOVE THE GAS COMPRESSION DISCHARGE DRUM (V-2103)		ABOVE THE FUEL GAS K.O. DRUM (V-2205)		
	2	GAS		GAS		FUEL GAS		
	3	1 phase (Vapour)		1 phase (Vapour)		1 phase (Vapour)		
	4	18.2		90		18.2		
	5	5.1		53.9		4.9		
	6	85		175		85		
	7	5		5		5		
	8	36.92/19.02		59.89/59.90		36.7		
	9	19616.421		18977.739		556.38		
	10	17833.11		17252.49		505.8		
	11	16.31		4.34		10.87		
	12	0.011		0.01		0.01		
	13	5.96		59.17		5.96		
	14	6		3		6		
	15	-		-		-		
	16	0.0316/0.0252 mole fraction in gas phase		0.0318/0.0252 mole fraction in gas phase		0.0316/0.0252 mole fraction in gas phase		
	17	-		-		-		
	18	17.94		4.76		11.24		
	19	VTA		VTA		VTA		
	20	VTA		VTA		VTA		
	21	Yes		Yes		Yes		
	22	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	23	Top of line		Top of line		Top of line		
	24	VTA		VTA		VTA		
	25	VTA		VTA		VTA		
	26	VTA		VTA		VTA		
	27	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)		
	28	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)		
	29	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)		
	30	(Note 11 in General Note)		(Note 11 in General Note)		(Note 11 in General Note)		
	31	No		No		No		
	32	Eex "ia"		Eex "ia"		Eex "ia"		
	33	IP 65		IP 65		IP 65		
	34	ISO M20 x 1.5		ISO M20 x 1.5		ISO M20 x 1.5		
	35	Retrievable Type (VTC)		Retrievable Type (VTC)		Retrievable Type (VTC)		
	36	N/A		N/A		N/A		
	37	N/A		N/A		N/A		
	38	N/A		N/A		N/A		
	39	N/A		N/A		N/A		
	40	N/A		N/A		N/A		
	41	N/A		N/A		N/A		
	42	N/A		N/A		N/A		
	43	N/A		N/A		N/A		
	44	N/A		N/A		N/A		
	45	N/A		N/A		N/A		
	46	N/A		N/A		N/A		
	47	N/A		N/A		N/A		
	48	N/A		N/A		N/A		
	49	N/A		N/A		N/A		
	50	N/A		N/A		N/A		
	51	2", Flare Weld Type		2", Flare Weld Type		2", Flare Weld Type (Note7)		
	52	at 12'O Clock		at 12'O Clock		at 12'O Clock		
	53	(Note 8 in General Note)		(Note 8 in General Note)		(Note 8 in General Note)		
	54	(Note 2)		(Note 2)		(Note 2)		
	55	Hollow Plug		Hollow Plug		Hollow Plug		
	56	ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		ASTM A106 Gr.B (Note 4)		
	57	Required		Required		Required		
	58	Required (Note 3)		Required (Note 3)		Required (Note 3)		
	59	Required (Note 3)		Required (Note 3)		Required (Note 3)		
	60	will be finalized later		will be finalized later		will be finalized later		
	61	will be finalized later		will be finalized later		will be finalized later		
	62	Required		Required		Required		
	63	Required as per ASME PTC		Required as per ASME PTC		Required as per ASME PTC		

NOTES : VTA : VENDOR TO ADVISE VTC : VENDOR TO CONFIRM N/A : NOT APPLICABLE

- (1) All process data will be finalized later
- (2) Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- (3) One set of retriever and service valve is common to all CC's fittings.
- (4) Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.
- (5) High pressure access fitting to be supplied by vendor.
- (6) Length of stem holder for installation in 120 'clock due to liquid service, to be the way that measure the corrosion at the bottom of line.
- (7) Pipe shall be expanded to 4" for CC installation (expansion size shall be confirmed by vendor).



تکهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR CORROSION COUPON/ PROBE

شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 11 از 11
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0014	D04	

GENERAL	1	TAG NO	CP-2151	
	2	P&ID NO.	BK-GCS-PEDCO-120-PR-PI-0013-D06	
	3	SERVICE	AFTER DEHYDRATION PACKAGE (PK-2101)	
	4	LINE NO.	GAS-111-0179-FN05-6"-PT	
	5	LINE SIZE / SCHEDULE	6" , SCH.80 (Note 4)	
	6	LINE/EQUIPMENT MATERIAL	ASTM A106 Gr.B (Note 4)	
	7	PIPING CLASS	FN05 (Note 4)	
	8	AREA CLASSIFICATION	Zone 2,IIB T4	
	9	NACE COMPLIANCE (as per NACE MR0175/ISO 15156)	Required	
PROCESS DATA (NOTE 1)	10	FLUID	GAS	
	11	PHASE	1 phase (Vapour)	
	12	DESIGN PRESSURE (barg)	90	
	13	OPERATING PRESSURE (barg)	52.9	
	14	DESIGN TEMPERATURE (°C)	175	
	15	MIN DESIGN METAL TEMPERATURE (°C)	5	
	16	OPERATING TEMPERATURE (°C)	59.40/59.36	
	17	MAX FLOW (Kg/hr)	18887.9	
	18	NORMAL FLOW (Kg/hr)	17170.8	
	19	MEAN VELOCITY	4.408	
	20	VISCOSITY (cP)	0.011	
	21	DENSITY (kg/m3)	58.06	
	22	PIPING CORROSION ALLOWANCE (mm)	6	
	23	WATER CUT	-	
24	RATE OF CO2 CONTENT (SUM/WIN)	0.0319/0.0253 mole fraction in gas phase		
25	RATE OF CHLORIDE CONTENT	-		
26	VELOCITY	4.85		
PROBE & TRANSMITTER	27	PROBE TYPE	VTA	
	28	PROBE INSERTION LENGTH	VTA	
	29	PROBE HOLDER	Yes	
	30	MATERIAL	ASTM A106 Gr.B (Note 4)	
	31	MOUNTING POSITION	Top of line	
	32	ENCLOSURE MATERIAL	VTA	
	33	MEASURING RANGE	VTA	
	34	OUTPUT SIGNAL	(Note 11 in General Note)	
	35	COMMUNICATION PROTOCOL	(Note 11 in General Note)	
	36	POWER SUPPLY	(Note 11 in General Note)	
	37	ACCURACY	(Note 11 in General Note)	
	38	INTEGRAL INDICATOR	No	
39	Ex PROTECTION	Eex "ia"		
40	INGRESS PROTECTION	IP 65		
41	CABLE ENTRY	ISO M20 x 1.5		
42	STYLE	Retrievable Type (VTC)		
COUPON	43	COUPON TYPE	N/A	
	44	COUPON MATERIAL	N/A	
	45	COUPON HOLDER (Note 6)	N/A	
	46	HOLDER MATERIAL	N/A	
	47	HOLDER LENGTH	N/A	
	48	COUPON INSERTION LENGTH	N/A	
	49	-	N/A	
	50	STYLE	N/A	
ACCESS FITTING (Note 5 & Note 6)	51	PROCESS CONNECTION	2", Flare Weld Type	
	52	MOUNTING POSITION	at 12'O Clock (Note 8 in General Note)	
	53	BRANCH STANDOUT LENGTH	(Note 2)	
	54	FITTING PLUG	Hollow Plug	
	55	MATERIAL	ASTM A106 Gr.B (Note 4)	
	56	PROTECTIVE COVER	Required	
	57	RETRACTABLE TOOL	Required (Note 3)	
	58	SERVICE VALVE	Required (Note 3)	
OTHER	59	MANUFACTURE	will be finalized later	
	60	MODEL NO.	will be finalized later	
	61	TAG PLATE (General Note 12)	Required	
	62	WAKE FREQUENCY STANDARD (NOTE 2)	Required as per ASME PTC 19.3	

NOTES : VTA : VENDOR TO ADVISE VTC : VENDOR TO CONFIRM N/A : NOT APPLICABLE

- All process data will be finalized later
- Wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- One set of retriever and service valve is common to all CC's fittings.
- Piping class, pipe schedule and materials related to Piping Material Specification, will be finalized after confirmation of this document.
- High pressure access fitting to be supplied by vendor.
- Length of stem holder for installation in 120' clock due to liquid service, to be the way that measure the corrosion at the bottom of line.