

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک								
	DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								
شماره پیمان: 053 - 073 - 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تسهیلات 110	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 1 از 6

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS

نگهداشت و افزایش تولید میدان نفتی بینک

D02	JUL.2022	AFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D01	FEB.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	DEC.2021	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 2

CLIENT Doc. Number: F9Z-707370

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
فعالیت های رو زمینی در بسته های کاری تحت الارض

عمومی و مشترک

DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS



شماره پیمان:

053 - 073 - 9184

پروژه

بسته کاری

صادرکننده

تسهیلات

رشته

نوع مدرک

سریال

نسخه

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شماره صفحه: 2 از 6

REVISION RECORD SHEET

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								
شماره پیمان: 053 - 073 – 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تسهیلات 000	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 3 از 6

REFERENCE DOCUMENTS:

1- SPECIFICATION FOR INSTRUMENTATION	BK-GNRAL-PEDCO-000-IN-SP-0001
2-PIPELINE MATERIAL SPECIFICATION	BK-SSGRL-PEDCO-110-PI-SP-0001
3- PIPING & INSTRUMENT DIAGRAM:	
P&ID - W018S	BK-W018S-PEDCO-110-PR-PI-0001
P&ID - W028	BK-W028-PEDCO-110-PR-PI-0001
P&ID - W035	BK-W035-PEDCO-110-PR-PI-0001
P&ID - W008N	BK-W008N-PEDCO-110-PR-PI-0001
P&ID - W007S	BK-W007S-PEDCO-110-PR-PI-0001
P&ID - W046S	BK-W046S-PEDCO-110-PR-PI-0001
4-PROCESS FLOW DIAGRAM (PFD)	BK-GCS-PEDCO-120-PR-PF-0001
5-INSTRUMENT & CONTROL SYSTEM DESIGN CRITERIA	BK-SSGRL-PEDCO-110-IN-DC-0002
6- SPECIFICATION FOR WHCP/HPU	BK-SSGRL-PEDCO-110-IN-SP-0001

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک							 	
DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS									
شماره پیمان: 053 - 073 – 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تجهیزات 000	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 4 از 6

GENERAL NOTES:

1 - Vendor to follow materials indicated in the Data Sheets, related wetted parts, these materials can be as minimum and shall be verified by vendor.

2- Material Test Certificate and calibration Certificate for all gauges to be submitted by Vendor.

3- All field instruments shall be furnished with a stainless steel corrosion resistant nameplate permanently fastened with screws and stamped as follows and as applicable:

- Vendor's name
- Model number
- Serial number
- Instrument tag number
- Operating range
- hazardous area certification & certification agency name
- Pressure rating

4- Environmental Condition For Field Instrumentation Of BINAK Oil field Shall Be Considered As Per The Following:

- Minimum ambient temperature (°C): -5 °C
- Maximum ambient temperature (°C): 50 °C
- Maximum steel surface exposed to sun (°C): 85 °C
- Maximum Design relative humidity: 100%
- Minimum Design relative humidity: 0%

 NISOC	تکداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک								 
	DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								شماره صفحه: 5 از 6
شماره پیمان:	پروژه	بسته کاری	مادرکننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	
053 - 073 - 9184	BK	SSGRL	PEDCO	000	IN	DT	0003	D02	

DATA SHEETS FOR TEMPERATURE GAUGE									
GENERAL	1	Item No.				See List			
	2	Tag Number				See List			
	3	Service				See List			
	4	Fluid		State		See List			
	5	Line Number /Equipment				See List			
	6	Line Size		Line Rating		See List			
	7	P&ID No.				See List			
	8	Nozzel Length (mm)				See List			
	9	Nace Requirement				See List (Note 10)			
PROCESS CONDITIONS	10	Velocity(m/s)		Density(Kg/m3)		See List		See List	
	11	Temp. °C	Oper.		Design	See List		See List	
	12	Press. Barg	Oper.		Design	See List		See List	
CONNECTION & CASE	13	Case Type				hermetically sealed			
	14	Ingress Protection				IP65			
	15	Case Diameter				150 mm (6")			
	16	Connection Size To Thermowell				1/2" NPTM			
	17	Ring Style				V.T.A			
	18	Stem Length		Stem Diameter		Suit for Well (VTA)		6 mm	
	19	Stem Material		Stem Location		S.S 316		Every angle	
	20	Case/Ring Material				S.S 304			
	21	Window Material				shatterproof glass			
	22	Connector Material				S.S 316 Zero AdjustmentDial Color			
	23	Exterior Treat. Color				polished SS			
DIAL & POINTER	24	Element Type		Dial Scale Type		bi-metallic (Note 5)		DUAL	
	25	Zero Adjustment	Matrail Pointer		Dial Color	adjustable pointer. external calibration		AISI 304 or aluminum	WHITE WITH BLACK FIGURES
	26	Dial Material	Accuracy		Dial Size	aluminium	Better than ± 1% of full span		150 mm
	27	Range Min.		Max.		See List		See List	
THERMOWELL	28	ConstructionType		Shank Style		drilled bar stock		Tapered	
	29	Process Conn.		Instrument Conn.		See List		1/2" NPTF	
	30	Bore Diameter		Outside Dia. @ Top		V.T.A		V.T.A	
	31	Outside Dia. @ Tip		Insertion Length "U" (See Note 13)		V.T.A		See List	
	32	Lag Ext. Len. "T"		Thermowell Mat. / Flange Mat.		V.T.A		S.S 316L	
SPECIAL	33	Custom Tag				SS permanent attached			
	34	Compliance Code				-			
PURCHASE	35	Manufacturer				Will be finalized later			
	36	Model				Will be finalized later			

Notes:

- 1- V.T.A: Vendor to Advise, N/A: Not Applicable, VTC:Vendor to Confirm
- 2- Thermowell is included for all Temperature Indicators.
- 3- Temperature gauges shall be fully adjustable type (Every Angle).
- 4- Temperature gauges shall be double scale type ("C and "F).
- 5- All gauges shall be bi-metallic type
- 6- Window shall be heavy plate glass, breakage resistance and shatter proof.
- 7- Type of mounting shall be direct bottom entry.
- 8- Well length shall be suitable for stem length.
- 9- On insulated lines, thermowells shall include a 64 mm lagging extension as per ips-c-in-120.
- 10- NACE requirement to be as per MR-0175/ISO 15156 if mentioned in data sheet.
- 11- Thermowell wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- 12- Temperature elements shall be capable of withstanding intermittent over-ranging to 1.5 times the maximum scale.
- 13- Standard Number for U-Length is IPS-D-IN-101.



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک								
	DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								
شماره پیمان: 053 - 073 - 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تسهیلات 110	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 1 از 6

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS

نگهداشت و افزایش تولید میدان نفتی بینک

D02	JUL.2022	AFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D01	FEB.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	DEC.2021	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 2

CLIENT Doc. Number: F9Z-707370

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

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IFI: Issued For Information

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NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
فعالیت های رو زمینی در بسته های کاری تحت الارض

عمومی و مشترک

DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS



شماره پیمان:

053 - 073 - 9184

پروژه

بسته کاری

صادرکننده

تسهیلات

رشته

نوع مدرک

سریال

نسخه

BK

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شماره صفحه: 2 از 6

REVISION RECORD SHEET

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								
شماره پیمان: 053 - 073 – 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تسهیلات 000	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 3 از 6

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P&ID - W035	BK-W035-PEDCO-110-PR-PI-0001
P&ID - W008N	BK-W008N-PEDCO-110-PR-PI-0001
P&ID - W007S	BK-W007S-PEDCO-110-PR-PI-0001
P&ID - W046S	BK-W046S-PEDCO-110-PR-PI-0001
4-PROCESS FLOW DIAGRAM (PFD)	BK-GCS-PEDCO-120-PR-PF-0001
5-INSTRUMENT & CONTROL SYSTEM DESIGN CRITERIA	BK-SSGRL-PEDCO-110-IN-DC-0002
6- SPECIFICATION FOR WHCP/HPU	BK-SSGRL-PEDCO-110-IN-SP-0001

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک							 	
DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS									
شماره پیمان: 053 - 073 – 9184	پروژه BK	بسته کاری SSGRL	صادر کننده PEDCO	تجهیزات 000	رشته IN	نوع مدرک DT	سریال 0003	نسخه D02	شماره صفحه: 4 از 6

GENERAL NOTES:

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	DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								شماره صفحه: 5 از 6
شماره پیمان:	پروژه	بسته کاری	مادرکننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	
053 - 073 - 9184	BK	SSGRL	PEDCO	000	IN	DT	0003	D02	

DATA SHEETS FOR TEMPERATURE GAUGE									
GENERAL	1	Item No.				See List			
	2	Tag Number				See List			
	3	Service				See List			
	4	Fluid		State		See List			
	5	Line Number /Equipment				See List			
	6	Line Size		Line Rating		See List			
	7	P&ID No.				See List			
	8	Nozzel Length (mm)				See List			
	9	Nace Requirement				See List (Note 10)			
PROCESS CONDITIONS	10	Velocity(m/s)		Density(Kg/m3)		See List		See List	
	11	Temp. °C	Oper.		Design	See List		See List	
	12	Press. Barg	Oper.		Design	See List		See List	
CONNECTION & CASE	13	Case Type				hermetically sealed			
	14	Ingress Protection				IP65			
	15	Case Diameter				150 mm (6")			
	16	Connection Size To Thermowell				1/2" NPTM			
	17	Ring Style				V.T.A			
	18	Stem Length		Stem Diameter		Suit for Well (VTA)		6 mm	
	19	Stem Material		Stem Location		S.S 316		Every angle	
	20	Case/Ring Material				S.S 304			
	21	Window Material				shatterproof glass			
	22	Connector Material				S.S 316 Zero AdjustmentDial Color			
	23	Exterior Treat. Color				polished SS			
DIAL & POINTER	24	Element Type		Dial Scale Type		bi-metallic (Note 5)		DUAL	
	25	Zero Adjustment	Matrail Pointer		Dial Color	adjustable pointer. external calibration		AISI 304 or aluminum	WHITE WITH BLACK FIGURES
	26	Dial Material	Accuracy		Dial Size	aluminium	Better than ± 1% of full span		150 mm
	27	Range Min.		Max.		See List		See List	
THERMOWELL	28	ConstructionType		Shank Style		drilled bar stock		Tapered	
	29	Process Conn.		Instrument Conn.		See List		1/2" NPTF	
	30	Bore Diameter		Outside Dia. @ Top		V.T.A		V.T.A	
	31	Outside Dia. @ Tip		Insertion Length "U" (See Note 13)		V.T.A		See List	
	32	Lag Ext. Len. "T"		Thermowell Mat. / Flange Mat.		V.T.A		S.S 316L	
SPECIAL	33	Custom Tag				SS permanent attached			
	34	Compliance Code				-			
PURCHASE	35	Manufacturer				Will be finalized later			
	36	Model				Will be finalized later			

Notes:

- 1- V.T.A: Vendor to Advise, N/A: Not Applicable, VTC:Vendor to Confirm
- 2- Thermowell is included for all Temperature Indicators.
- 3- Temperature gauges shall be fully adjustable type (Every Angle).
- 4- Temperature gauges shall be double scale type ("C and "F).
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- 6- Window shall be heavy plate glass, breakage resistance and shatter proof.
- 7- Type of mounting shall be direct bottom entry.
- 8- Well length shall be suitable for stem length.
- 9- On insulated lines, thermowells shall include a 64 mm lagging extension as per ips-c-in-120.
- 10- NACE requirement to be as per MR-0175/ISO 15156 if mentioned in data sheet.
- 11- Thermowell wake frequency analysis (stress calculation) according to ASME Power Test Code 19.3 shall be done & submitted by vendor.
- 12- Temperature elements shall be capable of withstanding intermittent over-ranging to 1.5 times the maximum scale.
- 13- Standard Number for U-Length is IPS-D-IN-101.



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک فعالیت های رو زمینی در بسته های کاری تحت الارض عمومی و مشترک											
	DATA SHEETS FOR TEMPERATURE GAUGE - WELLHEADS								شماره صفحه: 6 از 6			
شماره پیمان:	پروژه	بسته کاری	مادر کننده	لهیلات	رشته	نوع مدرک	سریال	نسخه				
053 - 073 - 9184	BK	SSGRL	PEDCO	000	IN	DT	0003	D02				

Item	Tag No.	Service	P&ID	Equipment/ Line No.	Fluid	State	Line Size	Velocity (m/s)	Measuring Range (bar)	Pressure Oper. (barg)SUM/WIN	Pressure Des. (barg)	Oper. Tem. (°C)SUM/WIN	Design Tem. (°C)	Density (Kg/m3) (Gas/ Oil/ Water)	NACE	Process. Conn.	Conn. Rating	Nozzel Length. (mm)	U Length (mm)	Remark	Revision
1	TG/TW-1201	W007S	BK-W007S-PEDCO-110-PR-PI-0002	CRD-110-121- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	0.776	0-160	16.38/16.50	205.8	79.98/79.92	105	349.44	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		
2	TG/TW-1601	W008N	BK-W008N-PEDCO-110-PR-PI-0001	CRD-110-161- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	0.528	0-160	11.89/12.11	205.8	74.02/73.32	105	344.64	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		
3	TG/TW-1101	W018S	BK-W018S-PEDCO-110-PR-PI-0001	CRD-110-111- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	0.424	0-160	15.60/16.57	205.8	73.98/73.44	105	429.43	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		
4	TG/TW-1401	W028	BK-W028-PEDCO-110-PR-PI-0001	CRD-110-141- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	1.628	0-160	20.44/20.39	205.8	79.93/79.67	105	416.35	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		
5	TG/TW-1501	W035	BK-W035-PEDCO-110-PR-PI-0001	CRD-110-151- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	1.516	0-160	22.48/22.46	205.8	79.85/79.64	105	447.3	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		
6	TG/TW-1301	W046S	BK-W046S-PEDCO-110-PR-PI-0001	CRD-110-131- LN15-6"-PT	HC WATER +	LIQUID/ GAS	6"	0.957	0-160	20.88/21.07	205.8	79.15/78.50	105	424.78	Yes	Flanged 1 1/2 RTJ	API 3000	200	250		