

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)							  	
	WORK BREAKDOWN STRUCTURE								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	بسته کاری	پروژه	شماره صفحه: ۱ از ۴
	V01	0001	WB	PM	120	AA	GCS	BK	

طرح نگهداشت و افزایش تولید ۲۷ مخزن

WORK BREAKDOWN STRUCTURE

نگهداشت و افزایش تولید میدان نفتی بینک

V01	Jul. 2024	IFA	AAC	M.Fakharian	M.Sadeghian	
V00	May. 2024	IFA	AAC	M.Fakharian	S.Faramarzpour	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
		CLIENT Doc. Number:				

status:

IFA: Issued For Approval

IFI: Issued For Information

AFC: Approved For Construction

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)					 AAC			
	Work Breakdown Structure								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده AA	تسهیلات 120	رشته PM	نوع مدرک WB	سریال 0001	نسخه V01	شماره صفحه: ۴ از ۴

REVISION RECORD SHEET											
Page	V00	V01	V02	V03	V04	Page	V00	V01	V02	V03	V04
1	X	X				65					
2	X	X				66					
3	X	X				67					
4	X	X				68					
5						69					
6						70					
7						71					
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج کولرهای هوایی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0015_02)	 					
	Work Breakdown Structure						
شماره پیمان: 9184 – 073 - 053		BK-GCS-AA-120-PM-WB-0001_V01		شماره صفحه: ۳ از ۴			Page 5 of 6
		Total Weight Factor	Weight Factor Sub-Level				
WBS			Level 1	Level 2	Level 3	Level 4	Level 5
1	project Air Cooler(Binak Oilfield Development , New Gas Compressor Station)	100					
1.1	Before Manufacturing	5	5				
1.1.1	Pre-Inspection Meeting (PIM)	0.5		10			
1.1.2	Documentation	4.5		90			
1.1.2.1	General/ Management	0.45			10		
1.1.2.1.1	list	0.36				80	
1.1.2.1.1.1	Vendor Print Index & Schedule (VPIS)	0.072					20
1.1.2.1.1.2	Work Breakdown Structure	0.072					20
1.1.2.1.1.3	Sub-vendor List	0.072					20
1.1.2.1.1.4	Time Schedule	0.072					20
1.1.2.1.1.5	Spare Part List	0.036					10
1.1.2.1.1.6	Final Data Book Index	0.036					10
1.1.2.1.2	Drawing/Diagram	0.045				10	
1.1.2.1.2.1	Name Plate Drawing	0.045					100
1.1.2.1.3	Reports	0.045				10	
1.1.2.1.3.1	Final Data Book	0.045					100
1.1.2.2	QA/QC	0.45			10		
1.1.2.2.1	Procedure/Plan	0.36				80	
1.1.2.2.1.1	Inspection & Test Plan (ITP)	0.108					30
1.1.2.2.1.2	Quality Control Plan (QCP)	0.036					10
1.1.2.2.1.3	W.P.S & P.Q.R	0.036					10
1.1.2.2.1.4	Surface Preparation and Painting Procedure (w/ Paint Datasheet)	0.036					10
1.1.2.2.1.5	NDE Procedure	0.018					5
1.1.2.2.1.6	Hydrostatic Test Procedure	0.018					5
1.1.2.2.1.7	SAT (Performance Test) Procedure	0.018					5
1.1.2.2.1.8	Pickling & Passivation Procedure	0.018					5
1.1.2.2.1.9	Ferrite Number Measurment Procedure	0.018					5
1.1.2.2.1.10	N2 Purging Procedure	0.018					5
1.1.2.2.1.11	PMI Procedure (welding of stainless steel)	0.018					5
1.1.2.2.1.12	Packing,Marking,Shipping Procedure	0.018					5
1.1.2.2.2	Drawing	0.045				10	
1.1.2.2.2.1	Welding and NDT Map	0.045					100
1.1.2.2.3	List	0.045				10	
1.1.2.2.3.1	Packing List	0.045					100
1.1.2.3	Process	0.9			20		
1.1.2.3.1	Calculation	0.36				40	
1.1.2.3.1.1	Thermal / Mechanical Calculation Book	0.36					100
1.1.2.3.2	Datasheet	0.36				40	
1.1.2.3.2.1	Process Data Sheet for AE-2101 (A/B/C)	0.18					50
1.1.2.3.2.2	Process Data Sheet for AE-2102 (A/B/C)	0.18					50
1.1.2.3.3	Diagram	0.09				10	
1.1.2.3.3.1	P&ID	0.09					100
1.1.2.3.4	List	0.09				10	
1.1.2.3.4.1	Utility Consumption List	0.09					100
1.1.2.4	Mechanical	1.8			40		
1.1.2.4.1	Drawing	0.72				40	
1.1.2.4.1.1	General Arrangement Drawings	0.18					25
1.1.2.4.1.2	Tube Bundle Drawing	0.108					15
1.1.2.4.1.3	Side Frame Drawing	0.072					10
1.1.2.4.1.4	Fan & Pulley Gaurd Drawing	0.036					5
1.1.2.4.1.5	Driving Assembly Drawing	0.036					5
1.1.2.4.1.6	Plenum fan Ring Drawing	0.072					10
1.1.2.4.1.7	Upper, Lower Bearing Drawing	0.036					5
1.1.2.4.1.8	Shaft Housing Drawing	0.036					5
1.1.2.4.1.9	Drive shaft Drawing	0.036					5
1.1.2.4.1.10	Fan & Motor Support Drawing	0.036					5
1.1.2.4.1.11	Name Plate Drawing	0.036					5
1.1.2.4.1.12	Louver Drawing	0.036					5
1.1.2.4.2	Datasheet	0.72				40	
1.1.2.4.2.1	Fan Data Sheets	0.432					60
1.1.2.4.2.2	Pulley Data Sheets	0.144					20
1.1.2.4.2.3	Pneumatic Actuator Data Sheet for Blades	0.144					20
1.1.2.4.3	LIST	0.18				10	
1.1.2.4.3.1	Special tools List	0.054					30
1.1.2.4.3.2	Block/ Part List	0.036					20
1.1.2.4.3.3	Spare Part List for two years operation	0.09					50
1.1.2.4.4	Manual	0.18				10	
1.1.2.4.4.1	Installation, Operation & Maintenance Manual	0.18					100
1.1.2.5	Instrument	0.225			5		
1.1.2.5.1	Datasheet	0.225				100	
1.1.2.5.1.1	Pulley Data Sheets	0.045					20
1.1.2.5.1.2	Vibration Switch Data Sheets and Catalogue	0.09					40
1.1.2.5.1.3	IP Converter Data Sheet	0.09					40
1.1.2.6	Electrical	0.225			5		
1.1.2.6.1	Datasheet	0.1125				50	
1.1.2.6.1.1	Motor Data Sheets Including Curves and Drawing	0.1125					100
1.1.2.6.2	List	0.09				40	
1.1.2.6.2.1	Electrical Load List	0.09					100
1.1.2.6.3	Procedure	0.0225				10	
1.1.2.6.3.1	Electro Motor Routine Test Procedure	0.0225					100
1.1.2.7	Structure	0.45			10		
1.1.2.7.1	Calculation	0.225				50	
1.1.2.7.1.1	Steel Structure Calculation Books	0.225					100
1.1.2.7.2	Drawing	0.225				50	
1.1.2.7.2.1	Steel Structure Drawings	0.18					80
1.1.2.7.2.2	Foundation Drawings	0.045					20
1.2	Material Inspection	30	30				

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	Work Breakdown Structure						
شماره پیمان: 9184 – 073 - 053		BK-GCS-AA-120-PM-WB-0001_V01		شماره صفحه: ۴ از ۴			
		Total Weight Factor	Weight Factor Sub-Level				
WBS			Level 1	Level 2	Level 3	Level 4	Level 5
1.2.1	Verification of Raw Material (Including plate , tube , pipe)	15		50			
1.2.2	Verification of Raw Material (Including flange, gasket , plug , bolt/ nut , ...)	13.5		45			
1.2.3	Verification of Consumables Material (Including Welding Consumables, Abbrasive , paint.)	1.2		4			
1.2.4	Storage of materials & welding consumable	0.3		1			
1.3	During Manufacturing	40	40				
1.3.1	Material identification and traceability and transfer of material identification before CUTTING	8		20			
1.3.2	Visual & dimensional Inspection of joint Preparation (Beveling Inspection).	2		5			
1.3.3	PT Examination for , beveling,	2		5			
1.3.4	Fit-up and welding	2		5			
1.3.5	PT root pass and back gouging	2		5			
1.3.6	Ferrite number measurement	2		5			
1.3.7	PT of Welds	0.4		1			
1.3.8	Ultrasonic Examination	0.4		1			
1.3.9	Radiographic Examination & film interpretation	0.4		1			
1.3.10	Welding Major Repair	0.4		1			
1.3.11	Visual and Dimensional Inspection of Header Boxes & alignment check (Nozzle to flange and header)	1.6		4			
1.3.12	PMI of welding stainless steel	2		5			
1.3.13	Drilling & machining	2		5			
1.3.14	Visual & Dimensional Inspection after drilling & machining	0.4		1			
1.3.15	Pickling and passivation	2		5			
1.3.16	Visual & Dimensional assembly side frame	2		5			
1.3.17	Tube to tube sheet welding	2		5			
1.3.18	Finned Tube Inspection Visual and dimensional check	6		15			
1.3.19	Tube expanding	2		5			
1.3.20	PT for tube to tube sheet joint	0.4		1			
1.4	Final Inspection	10	10				
1.4.1	Inspection for Completed Tube Bundle	5		50			
1.4.1.1	Visual & Dimensional Inspection	2.5			50		
1.4.1.2	Hydro Test	2.25			45		
1.4.1.3	Drying , N2 purging	0.25			5		
1.4.2	Fan and driver assembly inspection	0.5		5			
1.4.2.1	Visual & Dimensional Inspection	0.25			50		
1.4.2.2	Balance test for pulley& belt	0.1			20		
1.4.2.3	Assembly of rotating parts inspection	0.05			10		
1.4.2.4	Balance test for fan blades and hubs and Shaft	0.05			10		
1.4.2.5	Louver visual and dimentional & coating check	0.05			10		
1.4.3	Electric Motor Inspection	0.5		5			
1.4.3.1	Type test	0.2			40		
1.4.3.2	Routine test	0.2			40		
1.4.3.3	IP & ExX certificate reiew	0.1			20		
1.4.4	Instruments	0.5		5			
1.4.4.1	I/P Convertor	0.225			45		
1.4.4.1.1	Visual inspection	0.025			5		
1.4.4.1.2	Calibration	0.025			5		
1.4.4.1.3	IP & ExX certificate reiew	0.025			5		
1.4.4.2	Vibration Switch	0.5			100		
1.4.4.2.1	Visual inspection	0.4				80	
1.4.4.2.2	Test certificate	0.05				10	
1.4.4.2.3	IP & ExX certificate reiew	0.05				10	
1.4.5	Steel Structure Inspection	3.5		35			
1.4.5.1	Material certificate check	1.75			50		
1.4.5.2	Steel member visual & Dimensional Inspection	0.7			20		
1.4.5.3	Welding of steel structure	0.7			20		
1.4.5.4	NDT after welding if any	0.175			5		
1.4.5.5	Surface Preparation and Painting Inspection (including Side frame, fan ring, plenum, ...)	0.175			5		
1.5	Spare part Inspection	5	5				
1.5.1	Material certificate review	2.5		50			
1.5.2	VT, DT, Quantities and packing	2.5		50			
1.6	Pre shippment Inspection	10	10				
1.6.1	Prepration for shippment (shipping mark Check)	0.4		4			
1.6.2	Packing and Marking check (Including Packing Condition and Quantity and spare part check)	0.4		4			
1.6.3	Touch up and Name plate stamping (befor attaching)	0.4		4			
1.6.4	manufacturer certificate of compliance	0.4		4			
1.6.5	Issue Inspection Release Note (IRN) / Shipping Release Note by TPA	0.2		2			
1.6.6	Final data book	3		30			
1.6.7	IC	0.2		2			
1.6.8	SAT	5		50			