

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید بسته نم زدای گاز ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0010_08)								
شماره پیمان: 053 – 073 – 9184	EQUIPMENT LIST							شماره صفحه : 1 از 3	
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	GCS	MF	120	PR	LI	0001		V00

طرح نگهداشت و افزایش تولید 27 مخزن

EQUIPMENT LIST

نگهداشت و افزایش تولید میدان نفتی بینک

V00	Apr. 2025	IFI	MFS	M.Fakharian	S.Faramarzpour	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Status:

IFA: Issued For Approval

IFI: Issued For Information

AFC: Approved For Construction

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شماره پیمان: 053 – 073 – 9184	EQUIPMENT LIST							شماره صفحه : 2 از 3	
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	GCS	MF	120	PR	LI	0001		V00

REVISION RECORD SHEET

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شماره پیمان: 053 – 073 – 9184	EQUIPMENT LIST							شماره صفحه: 3 از 3
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	GCS	MF	120	PR	LI	0001	
							V00	

Package	Item Number	Item Name	Quantity	Specification & Size	Material	PWHT	CORROSION ALLOWANCE (mm)	INSULATION THK.	Operating			Design		HydroTest (Bar.g)	REMARKS	
									Operating Flow rate (kg/hr)	TEMP. (°C)	PRESS. (Bar.g)	TEMP (°C)	PRESS. (Bar.g)			
PK 002	C-100	Dehydration Column (Glycol Gas Compressor)	1	Process Fluid: TEG / HC-GAS Internals: Top Distributor, top liquid distributor, chimney tray, vane type inlet device, inlet gas scrubber in the bottom, distributor - bottom scrubber Total Volume: 3.49 m3 Position: Vertical Shell ID: 700 mm Length (TL): 10300 mm	Shell: SA 516 Gr 70N + 3mm SS316L cladding Head: SA 516 Gr 70N + 3mm SS316L cladding Flange: SA 105N + 3mm SS316L cladding Nozzle: SA 106 Gr B N + 3mm SS316L cladding Internal: SS 316L Gaskets: Spiral Wound SS316L Nomenclature: SS 304	Yes	3	Hot / 50mm	Wet Gas in Compressor: 17252.5 Dry Gas in Compressor: 17.00 Lean TEG in Compressor: 755 Liquid from Scrubber: 5.9 Rich TEG from Compressor: 849.5	Min(totem): 62.08 Max(top): 63.6	53.8 / 54.89	5 / 148	62 / F.V. @100°C	As Per Code		
	C-200	Glycol Still Column	1	Process Fluid: HC-GAS/TEG / VAP. Total Volume: 0.13 m3 Bottom flanged to glycol Refluxer, top flanged to reflux condenser. Position: Vertical Shell ID: 254 mm Length (TL): 2200 mm	Shell: SA 312 TP316L Head - Flange: SA 182 F316L Nozzle: SA 12 TP316L Internal: SS 316L Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	NO	0	Hot / 60mm	Still Column Off Gas: 143.88 (summer) & 115.43 (winter)		89 / 140	0.2-0.5	5 / 234	4 / F.V. @100°C	As Per Code	
	E-100	Reflux Condenser	1	Fluid Shell / Tube: Vapors / Rich Glycol Type: BEU Position: Vertical Size: 254.56 x 1400 mm Tube Type: Plain Tube No.: 1212	Shell: SA 312 TP316L Tubehead: SA 182 F316L Tube: SA 213 T316L Flange: SA 182 F316L Nozzle: SA 312 TP316L Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	NO	Tube side: 0 Shell side: 0	Hot / 40mm	Tube Side (Rich TEG): 934.45 (summer) & 921.51 (winter) Shell Side (Vapors): 143.88 (summer) & 115.43 (winter)	Tube Side (Rich TEG): 62.35 / 62.95 Outlet (Sum. / Wint.): 73.63 / 74.53 Shell Side (Vapors): 80.29 / 126.7 Outlet (Sum. / Wint.): 86.20 / 86.77	Tube Side (Rich TEG): 4.81 Shell Side (Vapors): 0.21	Tube Side (Rich TEG): 100 Shell Side (Vapors): 152	Tube Side (Rich TEG): 8.3 / F.V. @100°C Shell Side (Vapors): 6.6 / F.V. @100°C	As Per Code		
	E-200	Lean / Rich Glycol Exchanger	4	Fluid Shell / Tube: Vapors / Rich Glycol Type: Hairpin Position: Horizontal Size: 90.12 x 3300 mm Tube Type: Plain Tube No.: 4	Shell: SA 312 TP316L Rear Shell: SA 516 Gr. 70N Tubehead: SA 182 F316L Tube: SA 213 T316L Channel: SA 312 TP316L Flange: SA 182 F316L/SA 182F316L Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes (SHELL SIDE)	Tube side: 0 Shell side: 3	Hot / 60mm	Tube Side (Rich TEG): 917.51 (Summer) & 905.59 (Winter) Shell Side (Lean TEG): 852.50 (Summer & Winter)	Tube Side (Rich TEG): 73.6 / 74.52 Outlet (Sum. / Wint.): 140.05 / 140 Shell Side (Lean TEG): 101.5 / 162.7 Outlet (Sum. / Wint.): 119.43 / 125.6	Tube Side (Rich TEG): 4.3131 Shell Side (Lean TEG): 1.3132	Tube Side (Rich TEG): 100 Shell Side (Lean TEG): 220	Tube Side (Rich TEG): 7.3 / F.V. @100°C Shell Side (Lean TEG): 5.8 / F.V. @100°C	As Per Code		
	E-300	Lean TEG/Dry Gas Heat Exchanger	1	Fluid Shell / Tube: Lean Glycol / Rich Glycol Type: BEU Position: Horizontal Size: 317 x 4877 mm Tube Type: Plain Tube No.: 571	Shell: SA 516 Gr. 70N Tube: SA 216 T316L Channel: SA 516 Gr. 70N Tubehead: SA 182 F316L Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes	Tube Side: 3 Shell side: 3	Tube Side: Hot / 40mm Shell Side: Hot / 80mm	Tube side (Dry gas): 10890 (Summer) & 16619 (Winter) Shell side (Lean TEG): 852.5 (Summer & Winter)	Tube side (Dry gas): 63.62 / 63.89 Outlet (Sum. / Wint.): 66.21 / 67.09 Shell side (Lean TEG): 126.45 / 124.6 Outlet (Sum. / Wint.): 68 / 68	Tube Side (Dry Gas): 5.34 Shell Side (Lean TEG): 55.1	Tube side (Dry Gas): 95 Shell side (Lean TEG): 145	Tube side (Dry Gas): 10 / F.V. @100°C Shell side (Lean TEG): 6.2 / F.V. @100°C	As Per Code		
	V-120	Glycol Flash Drum	1	Process Fluid: TEG / HC-GAS Vessel Orientation: Horizontal Internals: Impingement Plate, baffles, Casing Baffles, Water, Distributor at top inlet, Vortex Breaker Total Volume: 3.2 m3 Retention Time: 30 minutes minimum Position: Horizontal Shell ID: 1100 mm Length (TL): 3400 mm	Shell: A 516 Gr. 70 N Head: A 516 Gr. 70 N Flange: A 105 N Nozzle: A 105 Gr. B N Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes	6	Hot / 50mm	Gas from Flash Drum: 15.2 Rich TEG to Flash Drum: 849.5 Rich TEG from Flash Drum: 834.3	Winter: 73.63 Summer: 74.53	4.5	5 / 120	8 / F.V. @100°C	As Per Code		
	F-100	Particle Glycol Filter	2	Model: Cartridge filter Number Required: 2 (1 operating / 1 spare) Fluid: Rich TEG Treated/Gross Component: Yes - H2S (0.93% wt approx.), CO2 (0.06 % wt approx.) Efficiency: 50% of particles > 5 microns Total Surface: 3 cartrages 7'x30" cm2 Removed Particles: 5 gpm Position: Vertical Shell ID: 300 mm Length (TL): 1250 mm	Shell: SA 106 Gr B N Head: SA 214 WPB N Flange: SA 105 N Nozzle: SA 106 Gr B N Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes	6	Hot / 40mm	Winter: 826.9 Summer: 834.3	Winter: 74.53 Summer: 73.63	4.5	5 / 100	8 / F.V. @100°C	As Per Code		
	F-200	Glycol Carbon Filter	2	Model: Active Carbon Filter Number Required: 2 (1 operating / 1 spare) Process Fluid: Rich TEG Treated/Gross Component: Yes - H2S (0.93% wt approx.), CO2 (0.06 % wt approx.) Efficiency: Filtering efficiency (cartridge full of carbon) Position: Vertical Shell ID: 300 mm Length (TL): 1350 mm	Shell: SA 106 Gr B N Head: SA 214 WPB N Flange: SA 105 N Nozzle: SA 106 Gr B N Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes	6	Hot / 50mm	Winter: 206.725 Summer: 208.725	Winter: 74.53 Summer: 73.62	3.8	5 / 100	7.5 / F.V. @100°C	As Per Code		
	R-100 & V-130	Glycol Refluxer and Surge Drum	1	Process Fluid: TEG Refluxer Process duty estimated as 83.52 MW(100% over design). Heat Flux of about 18000 kcal/hr m2. Burner Design Duty 151 kW Fuel Gas consumption 5.3 kg/hr (12.25 kg/hr peak) Position: Horizontal Shell ID: 1200 mm Length (TL): 6400mm	Shell: A 516 Gr 70 N Head: A 516 Gr 70 N Flange: A 105 N Nozzle: A 106 Gr B N Gaskets: Spiral Wound SS 316L Nomenclature: SS 304	Yes	3	Hot / 90mm	Rich TEG: 834.3 Lean TEG: 775 Fuel Gas to Refluxer: 9.3 Stepping Gas: 60		min. / norm. / max. - / 0.3 / 6.6	5 / 234	4.1 / F.V. @100°C	As Per Code		
	P-100 A/B	Lean Glycol Circulation Pump	2	Model: Volumetric Service: Lean TEG Capacity @ PF (m3/hr) maximum: 8.84, Rated:0.96 Discharge Pressure (Bar.g) maximum: 55.4, Minimum: TBD NPSH Available (m): -0.5 Suction size & rating: 2" & 6000 Discharge size & rating: 1" & 6000 Value: 400 Phase: 3 Hertz: 50	(Lapad end: SS 316L)(1)	No	-	-	-	Pumping Temperature Normal: 113 Maximum: 119 Minimum: 85	Differential Pressure(Bar.g) maximum: 54.2	(2)	(2)	As Per Code	(1), (2)	

Notes:

(1) Pump Differential Pressure will be finalized after piping model is finalized.

(2) Pump Details (Casing Design Temperature and Pressure and Material) will be finalized after Vendor data is received.

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(2) Pump Details (Casing Design, Temperature and Pressure and Material) will be finalized after Vendor data is received.