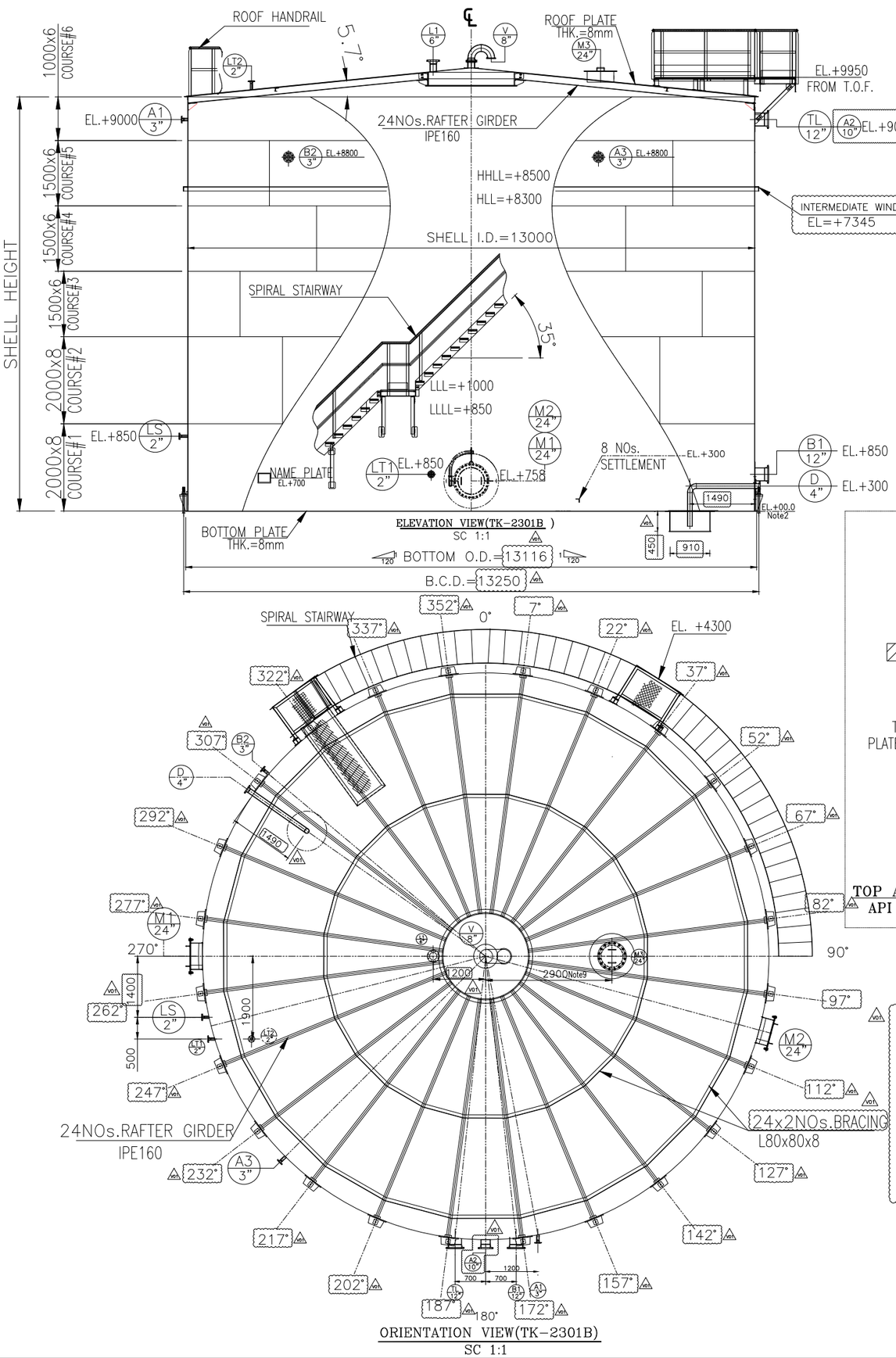
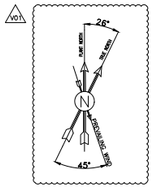
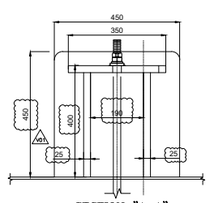
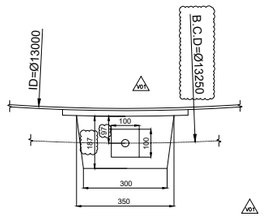
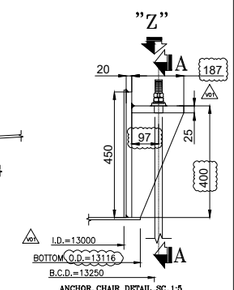
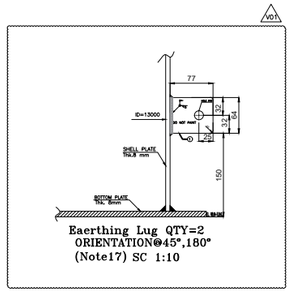


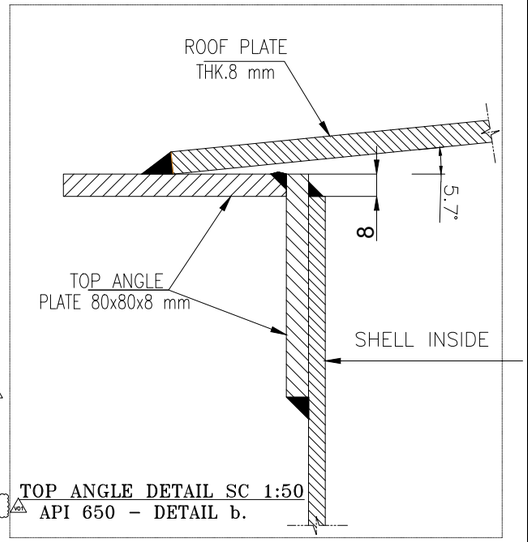


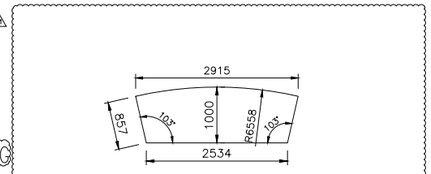












NOZZLE LIST

	ITEM	QTY.	SERVICE	SIZE	SCH./THK.	TYPE	FLANGES RATING	FLANGES FACING	PROJ.	OD x THK. REINF.	REMARKS
SHELL NOZZLES	A1	1	Inlet	3"	80	W.N.	150#	R.F.	6691	265x8t	
	B1	1	Outlet	12"	80	W.N.	150#	R.F.	6741	685x8t	
	TL	1	Test Line	12"	80	W.N.	150#	R.F.	6741	685x8t	
	A3	1	Inlet	3"	80	W.N.	**150#**	**R.F.**	6691	265x8t	
	LS	1	Level Switch	2"	80	W.N.	300#	R.F.	6666	(250x8t)	V01
	B2	1	Over Flow	3"	80	W.N.	150#	R.F.	6691	685x8t	
	D	1	Drain	4"	80	W.N.	150#	R.F.	6691	305x8t	
	M1/2	2	Manhole	24"	--/8	AS PER API-650			6816	1255x8t	with davit
	LT1	1	Level Transmitter	(2")	80	W.N.	300#	R.F.	6666	--	
	A2	1	Pressure Relief Valve	10"	80	W.N.	150#	R.F.	7091	585x8t	
ROOF NOZZLES	V	1	Vent	8"(Note17)	80	W.N.	150#	R.F.		225x8t	
	LI	1	Level Indicator	6"	80	W.N.	300#	R.F.		170x8t	
	M3	1	Roof Manhole	24"	80	W.N.	150#	R.F.	NOTE9	175x8t	with davit and hinge (Note 16)
	LT2	1	Level Transmitter	2"	80	W.N.	300#	R.F.		65x8t	

GENERAL DATA

TAG No.	TK-2301 B
QTY. OF TANKS	1
STORAGE FLUID	Fire Water Tank
CODE	API 650 (13th EDITION, ADD. 2021, APP.E,P.)
CAL. METHOD FOR SHELL	ONE FOOT METHOD
ROOF TYPE	Rafter Supported Cone Roof
SPECIFIC GRAVITY	1
CORROSION ALLOWANCE BOTTOM/ SHELL /ROOF/NOZZLES/STRUCTURE (mm)	1.6/1.6/1.6/1.6/1.6
SEISMIC DATA: Ss/S1/Fa/Fv/Site Class/SUG	1.1255/0.46/1/1.33/D/II
WIND VELOCITY / DESIGN WIND VELOCITY (Km/h)	232/193
DIMENSIONS (mm)	13000 I.D. x 9500 Height
TEMPERATURE: OPERATING / DESIGN (°C)	AMB. / 85
INT.PRESSURE: OPERATING (MIN./MAX)/DESIGN (INT./EXT.) (barg)	ATM./ATM.+Full of Water + 50 mm H2O
EXT. DESIGN PRESSURE (barg)	0
CAPACITY: NOMINAL / NET (m^3)	1260/1040
FILLING/EMPTYING RATE (MAX): (m^3/h)	HOLD
COOLING SYSTEM/FOAM SYSTEM	NO/NO
P.W.H.T.	NO
FOUNDATION TYPE	RING WALL
APPLICABLE ANNEXES	E
CATHODIC PROTECTION(EXTERNAL/INTERNAL)	YES/NO
DESIGN METAL TEMPERATURE (°C)	AMB.
HHLL / LLLL (mm)	8500/ 850
BLANKETING (with nitrogen)	NO
FLAME ARRESTOR	NO
EMERGENCY VENT	NO
PRESSURE RELIEF VALVE	YES
GAUGE HATCH	YES

THICKNESS SUMMARY

ANNULAR THICKNESS	mm	8
BOTTOM THICKNESS	mm	8
ROOF THICKNESS	mm	8
SHELL THICKNESS C#1/C#2/C#3/C#4/C#5/C#6	mm	8/8/6/6/6/6

INSPECTION & TEST

VISUAL & DIMENSIONAL INSPECTION	YES
HYDROSTATIC TEST	YES (FILLED WITH WATER TO HHLL+50mm H2O)
RADIOGRAPHY EXAM.	YES(API650- 8.1.2)
VACUME BOX TEST	YES
AIR AND SOAP LEAK TEST	YES
IMPACT TEST	NO

SURFACE TREATMENT (PAINTING & INSULATION)

INTERNAL (SHELL/ROOF/BOTTOM)	YES/YES/YES
EXTERNAL (SHELL/ROOF/BOTTOM/STRUCTURE)	YES/YES/YES/YES
INSULATION	NO

MATERIAL

ROOF/SHELL/REINF. PAD	SA283-C
BOTTOM/ANNULAR PLATE/WIND GIRDER	SA283-C/SA283-C/A36
STRUCTURE/TOP ANGLE	ST37
NOZZLE NECK(PLATE/PIPE)	SA283-C/A-106GrB
FLANGE(PLATE/FORGED)	SA283-C/A-105
EXTERNAL (BOLTS /NUTS)	A 193-B7M / A 194-2HM (Hot Dip Galvanizing or Dichromate)
GASKET	Note 7(PTFE for manhole gasket material)
ANCHOR BOLT	F1554 Gr.36
FITTINGS	A 234 WPB
NAME PLATE BRACKET / NAME PLATE	A 283 Gr. C / A 240 316 L
INTERNAL (BOLTS /NUTS)	A 193-B8M / A 194-8M
FIXED INTERNALS	A 106 Gr. B / A 283 Gr. C
FOAM AND WATER COOLING SYSTEM	N/A

LOADING DATA

EMPTY WEIGHT	505	TON
HYDROTEST WEIGHT	1312 (V01)	TON
OPERATING WEIGHT	1092	TON
WIND SHEAR	456	KN
WIND MOMENT	2683	KN.m
SEISMIC SHEAR	1964	KN
SEISMIC MOMENT RING WALL/SLAB	6930/10791	KN.m

NOTES

1. ALL DIMENSION ARE IN mm, UNLESS OTHERWISE SPECIFIED.
2. ALL ELEVATIONS ARE MEASURED FROM TOP OF FOUNDATION.
3. SHELL AND ROOF NOZZLES PROJECTIONS ARE MEASURED FROM OUTSIDE SHELL BODY OR ROOF PLATE.
4. ROOF-SHELL JUNCTION IS ABOVE OF TOP ANGLE.
5. MINIMUM ANCHOR BOLT YEILD STRESS Sy =248 MPa.
6. ANCHOR BOLTS TO BE STRADDLED NORTH/SOUTH CL. UNLESS OTHERWISE NOTED.
7. GASKET PROPERTIES:ASBESTOS FREE SPW, WIOR, RF, 4.5MM, SPIRAL:316L, CENTERING RING: C.S./INNER RING:316L,FILLER:GRAPHITE, ASME B16.20 FOR PIPING COMPONENT AND FLAT GASKET MATERIAL (WHICH CONFIRMED TO "API650") SHALL BE NEOPRENE RUBBER SHEET CONSIDERED FOR ROOF AND SHELL MANHOLES.
8. SHELL NOZZLE PROJECTION HAS BEEN SPECIFIED FROM TANK CENTER LINE AND ROOF NOZZLE PROJECTION SHALL HAS BEEN SPECIFIED FROM UNDERSIDE OF BOTTOM PLATE
9. DUE TO THE CLASH BETWEEN THE NOZZLES (M3) WITH THE RAFTER, IT IS NECESSARY TO MOVE THESE NOZZLES.
10. DELETED.
11. EXTERNAL AND INTERNAL SURFACE OF TANK WILL BE COATED IN ACCORDANCE WITH BK-GNRAL-PEDCO-000-PI-SP-0006 & BK-GNRAL-PEDCO-000-PI-SP-0007 RESPECTIVELY.
12. MANWAYS WILL BE SUPPLIED COMPLETE WITH BLIND FLANGE, EXTERNAL GRAB HANDLES, INTERNAL GRAB HANDLE AND LADDER RUNGS, NUTS,BOLTING, GASKET AND PROOF LOAD TEST DAVITS. DAVITS WILL BE PROOF LOAD TESTED ON THE VESSEL TO 1.5 X SAFE WORKING LOAD (SWL) AND WILL BE MARKED ACCORDINGLY.
13. INSTRUMENT AND PIPING NOZZLE FLANGES WILL BE IN ACCORDANCE WITH ASME B 16.5.
14. ALL NOZZLES CONNECTION WELD TO TANK WILL BE WITH FULL PENETRATION.
15. THE REQUIREMENT OF INTERNAL AND EXTERNAL CATHODIC PROTECTION WILL BE CONSIDERED. (V01)
16. ON THE BOTTOM PLATE, A U-SHAPED CLIP IS WELDED TO HOLD & GUIDE THE INDICATOR STRAP OF THE FLOAT GAUGE.
17. WILL BE FINALIZED NEXT REVISION.
18. ALL ANCHOR BOLT&NUT SHALL BE HOT DIP GALVANIZED (BY OTHER).

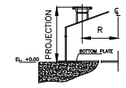
HOLD ITEM

1- Allowable Nozzle Load. (V01)
2- Pipe Clip Support .

LEGEND

ELEVATION & PROJECTION KEY PLANE(NOTE2,3,8)

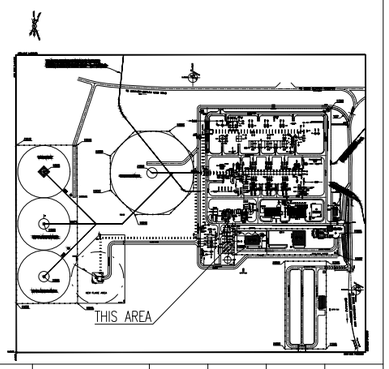
SHELL NOZZLE KEY PLANE



ROOF NOZZLE KEY PLANE

REFERENCE DOCMENT	DRG. No.
MECHANICAL DATA SHEETS FOR FIRE WATER STORAGE TANK	BK-GCS-PEDCO-120-ME-DT-0017-D05
Mechanical Design Criteria	BK-GNRAL-PEDCO-000-ME-DC-0001
Specification for Painting	BK-GNRAL-PEDCO-000-PI-SP-0006
Specification for Insulation	BK-GNRAL-PEDCO-000-PI-SP-0019
Specification for Lining	BK-GNRAL-PEDCO-000-PI-SP-0007

KEY PLAN



REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
V01	DEC. 2024	AFC	iDrill M.E.	M.FAKHARIAN	M.SADEGHIAN	**.**
V00	NOV. 2024	IFA	iDrill M.E.	M.FAKHARIAN	M.SADEGHIAN	**.**

***	**********	**.**	***.****	**.**	***.****
REV.	DESCRIPTION	BY	DATE	BY	DATE
		CHECKED		REV. APPR.	

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY – DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY (PEDCO)

BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS CPMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

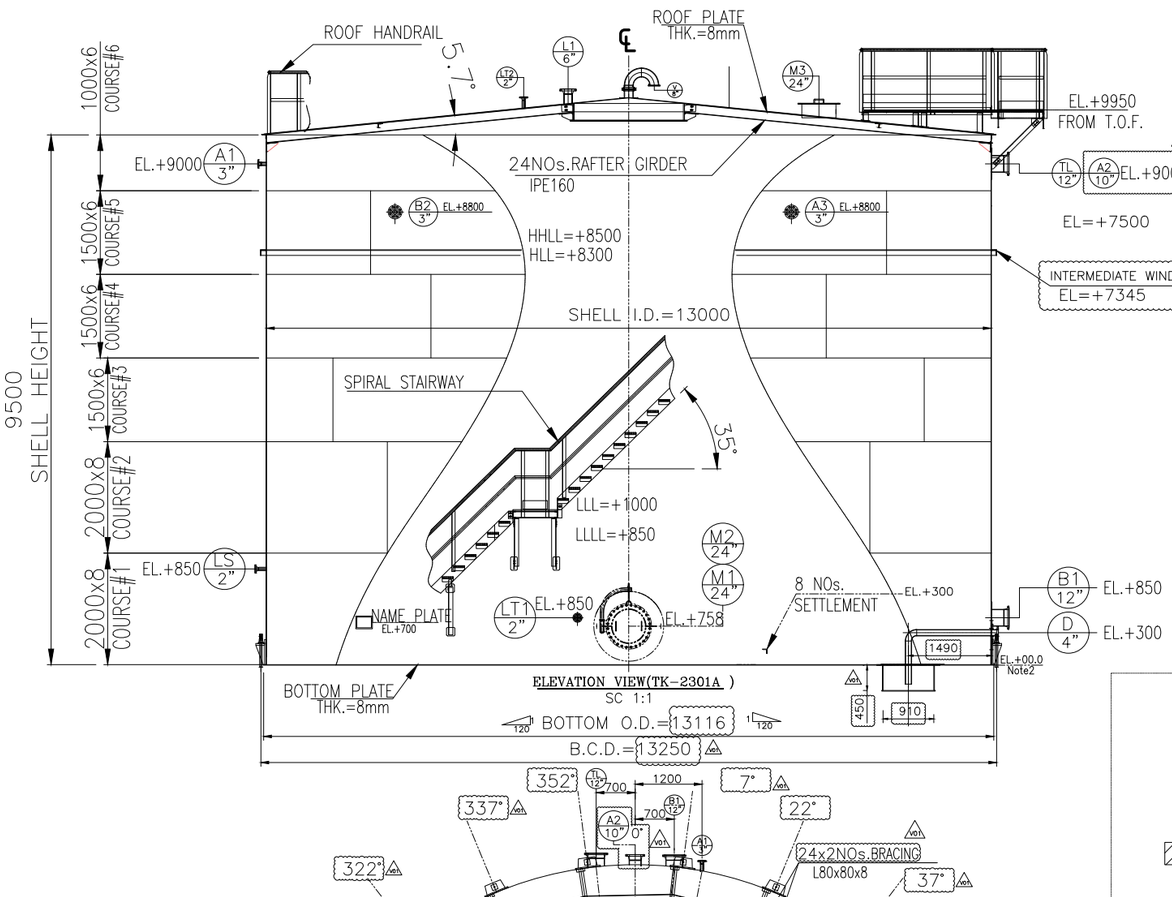
APPROVED FOR CONSTRUCTION	BY:	DATE:

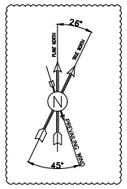
MANUFACTURER:iDrill Middle East (iDrill M.E)

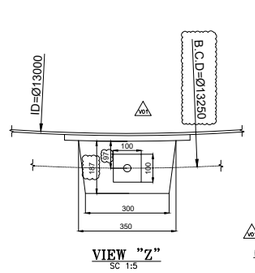
DRAWING TITLE: GENERAL ARRANGEMENT FOR FIRE WATER TANKS (TK-2301B)

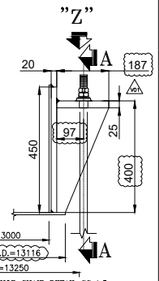
SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
1:110	A3	BK-GCS-IDR-120-ME-DW-0007	2 OF 2	V01

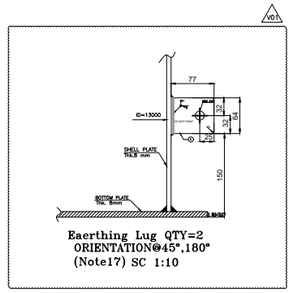
BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION

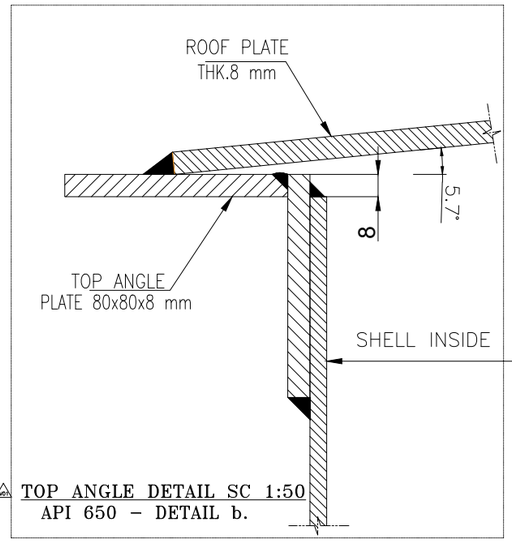


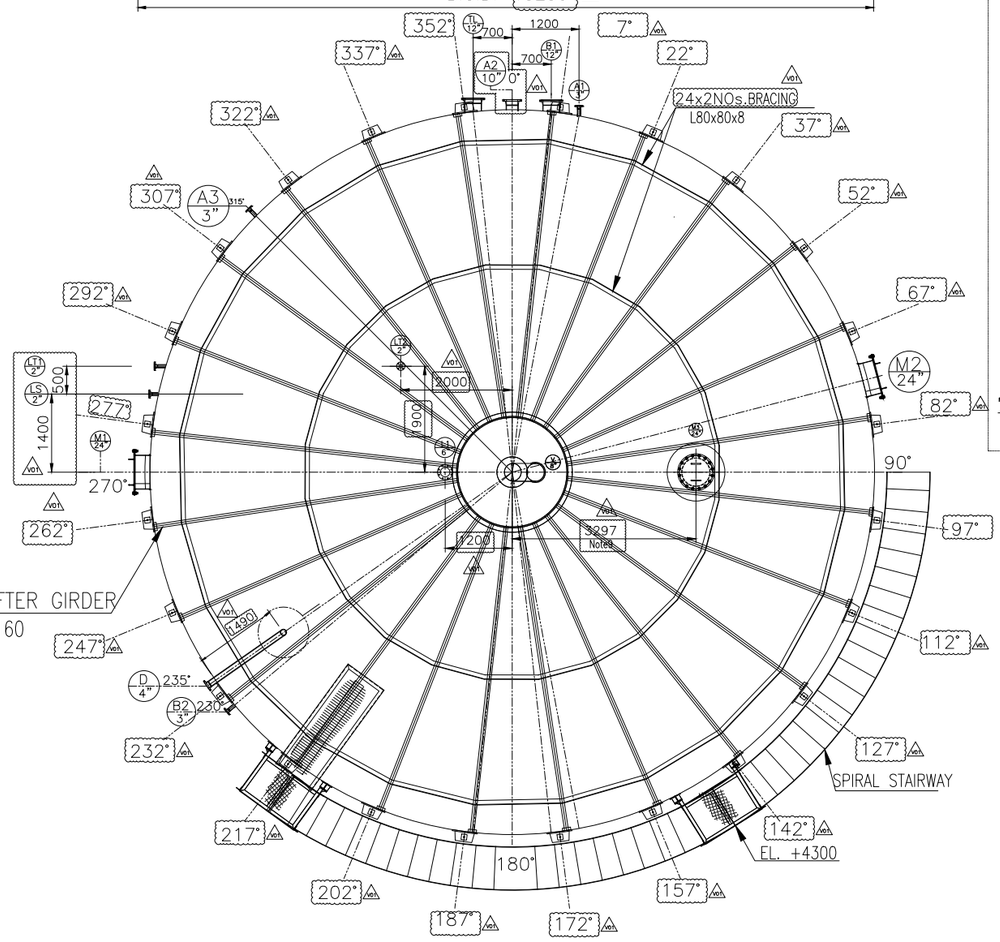


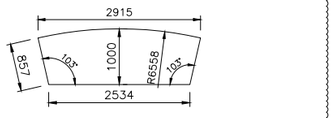












NOTES

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3. SHELL AND ROOF NOZZLES PROJECTIONS ARE MEASURED FROM OUTSIDE SHELL BODY OR ROOF PLATE.
4. ROOF-SHELL JUNCTION IS ABOVE OF TOP ANGLE.
5. MINIMUM ANCHOR BOLT YEILD STRESS Sy =248 MPa.
6. ANCHOR BOLTS TO BE STRADDLED NORTH/SOUTH CL. UNLESS OTHERWISE NOTED.
7. GASKET PROPERTIES:ASBESTOS FREE SPW, WIOR, RF, 4.5MM, SPIRAL:316L, CENTERING RING: C.S./INNER RING:316L,FILLER:GRAPHITE, ASME B16.20 FOR PIPING COMPONENT AND FLAT GASKET MATERIAL (WHICH CONFIRMED TO "API650") SHALL BE NEOPRENE RUBBER SHEET CONSIDERED FOR ROOF AND SHELL MANHOLES.
8. SHELL NOZZLE PROJECTION HAS BEEN SPECIFIED FROM TANK CENTER LINE AND ROOF NOZZLE PROJECTION SHALL HAS BEEN SPECIFIED FROM UNDERSIDE OF BOTTOM PLATE
9. DUE TO THE CLASH BETWEEN THE NOZZLES (M3) WITH THE RAFTER, IT IS NECESSARY TO MOVE THESE NOZZLES.
10. DELETED.
11. EXTERNAL AND INTERNAL SURFACE OF TANK WILL BE COATED IN ACCORDANCE WITH BK-GNRAL-PEDCO-000-PI-SP-0006 & BK-GNRAL-PEDCO-000-PI-SP-0007 RESPECTIVELY.
12. MANWAYS WILL BE SUPPLIED COMPLETE WITH BLIND FLANGE, EXTERNAL GRAB HANDLES, INTERNAL GRAB HANDLE AND LADDER RUNGS, NUTS,BOLTING, GASKET AND PROOF LOAD TEST DAVITS. DAVITS WILL BE PROOF LOAD TESTED ON THE VESSEL TO 1.5 X SAFE WORKING LOAD (SWL) AND WILL BE MARKED ACCORDINGLY.
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14. ALL NOZZLES CONNECTION WELD TO TANK WILL BE WITH FULL PENETRATION.
15. THE REQUIREMENT OF INTERNAL AND EXTERNAL CATHODIC PROTECTION WILL BE CONSIDERED.
16. ON THE BOTTOM PLATE, A U-SHAPED CLIP IS WELDED TO HOLD & GUIDE THE INDICATOR STRAP OF THE FLOAT GAUGE.
17. WILL BE FINALIZED NEXT REVISION.
18. ALL ANCHOR BOLT&NUT SHALL BE HOT DIP GALVANIZED (BY OTHER).

HOLD ITEM

1- Allowable Nozzle Load.
2- Pipe Clip Support .

NOZZLE LIST

	ITEM	QTY.	SERVICE	SIZE	SCH./THK.	TYPE	FLANGES RATING	FLANGES FACING	PROJ.	OD x THK. REINF.	REMARKS
SHELL NOZZLES	A1	1	Inlet	3"	80	W.N.	150#	R.F.	6691	265x8t	
	B1	1	Outlet	12"	80	W.N.	150#	R.F.	6741	685x8t	
	TL	1	Test Line	12"	80	W.N.	150#	R.F.	6741	685x8t	
	A3	1	Inlet	3"	80	W.N.	150#	R.F.	6691	265x8t	
	LS	1	Level Switch	2"	80	W.N.	300#	R.F.	6666	(250x8t)	
	B2	1	Over Flow	3"	80	W.N.	150#	R.F.	6691	685x8t	
	D	1	Drain	4"	80	W.N.	150#	R.F.	6691	305x8t	
	M1/2	2	Manhole	24"	-/8	AS PER API-650			6816	1255x8t	with davit
	LT1	1	Level Transmitter	(2")	80	W.N.	300#	R.F.	6666	—	
	A2	1	Pressure Relief Valve	10"	80	W.N.	150#	R.F.	7091	585x8t	
ROOF NOZZLES	V	1	Vent	8" (Note17)	80	W.N.	150#	R.F.		225x8t	(Note 17)
	LI	1	Level Indicator	6"	80	W.N.	300#	R.F.		170x8t	
	M3	1	Roof Manhole	24"	80	W.N.	150#	R.F.	NOTE9	175x8t	with davit and hinge
	LT2	1	Level Transmitter	2"	80	W.N.	300#	R.F.		65x8t	(Note 16)

GENERAL DATA

TAG No.		TK-2301 A
QTY. OF TANKS		1
STORAGE FLUID		Fire Water Tank
CODE		API 650 (13th EDITION, ADD. 2021, APP.E.P.)
CAL. METHOD FOR SHELL		ONE FOOT METHOD
ROOF TYPE		Rafter Supported Cone Roof
SPECIFIC GRAVITY		1
CORROSION ALLOWANCE BOTTOM/ SHELL /ROOF/NOZZLES		1.6/1.6/1.6/1.6
SEISMIC DATA: Ss/S1/Fa/Fv/Site Class/SUG		1.1255/0.46/1/1.33/D/II
WIND VELOCITY / DESIGN WIND VELOCITY	(Km/h)	232/193
DIMENSIONS	(mm)	13000 I.D. x 9500 Height
TEMPERATURE: OPERATING / DESIGN	(°C)	AMB. / 85
INT.PRESSURE: OPERATING (MIN./MAX)/DESIGN (INT./EXT.)	(barg)	ATM./ATM.+Full of Water + 50 mm H2O
EXT. DESIGN PRESSURE	(barg)	0
CAPACITY: NOMINAL / NET	(m^3)	1260/1040
FILLING/EMPTYING RATE (MAX):	(m^3/h)	HOLD
COOLING SYSTEM/FOAM SYSTEM		NO/NO
P.W.H.T.		NO
FOUNDATION TYPE		RING WALL
APPLICABLE ANNEXES		F
CATHODIC PROTECTION(EXTERNAL/INTERNAL)		YES/NO
DESIGN METAL TEMPERATURE	(°C)	AMB.
HHLL / LLLL	(mm)	8500/ 850
BLANKETING (with nitrogen)		NO
FLAME ARRESTOR		NO
EMERGENCY VENT		NO
PRESSURE RELIEF VALVE		YES
GAUGE HATCH		YES

THICKNESS SUMMARY

ANNULAR THICKNESS	mm	8
BOTTOM THICKNESS	mm	8
ROOF THICKNESS	mm	8
SHELL THICKNESS C#1/C#2/C#3/C#4/C#5/C#6	mm	8/8/6/6/6/6

INSPECTION & TEST

VISUAL & DIMENSIONAL INSPECTION	YES
HYDROSTATIC TEST	YES (FILLED WITH WATER TO HHLL+50mm H2O)
RADIOGRAPHY EXAM.	YES(API650- 8.1.2)
VACUME BOX TEST	YES
AIR AND SOAP LEAK TEST	YES
IMPACT TEST	NO

SURFACE TREATMENT (PAINTING & INSULATION)

INTERNAL (SHELL/ROOF/BOTTOM)	YES/YES/YES
EXTERNAL (SHELL/ROOF/BOTTOM/STRUCTURE)	YES/YES/YES/YES
INSULATION	NO

MATERIAL

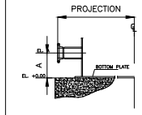
ROOF/SHELL/REINF. PAD	SA283-C
BOTTOM/ANNULAR PLATE/WIND GIRDER	SA283-C/SA283-C/A36
STRUCTURE/TOP ANGLE	ST37
NOZZLE NECK(PLATE/PIPE)	SA283-C/A-106GrB
FLANGE(PLATE/FORGED)	SA283-C/A-105
EXTERNAL (BOLTS /NUTS)	A 193-87M / A 194-2HM (Hot Dip Galvanizing or Dichromate)
GASKET	Note 7(PTFE for manhole gasket material)
ANCHOR BOLT	F1554 Gr.36
FITTINGS	A 234 WPB
NAME PLATE BRACKET / NAME PLATE	A 283 Gr. C / A 240 316 L
INTERNAL (BOLTS /NUTS)	A 193-88M / A 194-8M
FIXED INTERNALS	A 106 Gr. B / A 283 Gr. C
FOAM AND WATER COOLING SYSTEM	N/A

LOADING DATA

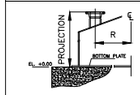
EMPTY WEIGHT	505	TON
HYDROTEST WEIGHT	1312	TON
OPERATING WEIGHT	1092	TON
WIND SHEAR	456	KN
WIND MOMENT	2683	KN.m
SEISMIC SHEAR	1964	KN
SEISMIC MOMENT RING WALL/SLAB	6930/10791	KN.m

LEGEND

ELEVATION & PROJECTION KEY PLANE(NOTE2,3,8)



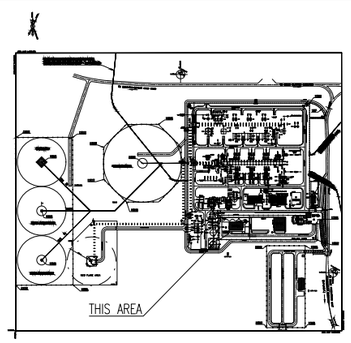
SHELL NOZZLE KEY PLANE



ROOF NOZZLE KEY PLANE

REFERENCE DOCMENT	DRG. No.
MECHANICAL DATA SHEETS FOR FIRE WATER STORAGE TANK	BK-GCS-PEDCO-120-ME-DT-0017-D05
Mechanical Design Criteria	BK-GNRAL-PEDCO-000-ME-DC-0001
Specification for Painting	BK-GNRAL-PEDCO-000-PI-SP-0006
Specification for Insulation	BK-GNRAL-PEDCO-000-PI-SP-0019
Specification for Lining	BK-GNRAL-PEDCO-000-PI-SP-0007

KEY PLAN



REV.	DESCRIPTION	CHECKED BY	CHECKED DATE	REV. APPR. BY	REV. APPR. DATE
***	**********	**.**	***.****	**.**	***.****
V01	DEC. 2024	AFC	iDrill M.E.	M.FAKHARIAN	M.SADEGHIAN	**.**
V00	NOV. 2024	IFA	iDrill M.E.	M.FAKHARIAN	M.SADEGHIAN	**.**
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY — HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY — PEDCO

BINAK OILFIELD DEVELOPMENT
SURFACE FACILITIES
GAS CPMPRESSOR STATION

DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION | BY: | DATE:

DRAWING TITLE: GENERAL ARRANGEMENT FOR FIRE WATER TANKS (TK-2301 A)

SCALE	SIZE	DRAWING NO.	SHEET NO.	REV.
1:110	A3	BK-GCS-IDR-120-ME-DW-0007	1 OF 2	V01

BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION

MANUFACTURER:iDrill Middle East (iDrill M.E)