



GREENCUBE

TARAZ BITUMEN PLANT PROJECT



GREENCUBE

ENGINEERING & MINING CO.



GREEN CUBE IDEA
ENGINEERING & MINING CO.

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PROCESS DATA SHEET FOR 500 M3 STORAGE TANKS	TRZ-PR-DS-014-01	1 of 2



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PROCESS DATA SHEET FOR
500 M3 STORAGE TANK



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TANK NUMBER:
TK-107



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02					
01	22. Jun. 2026	Issued for Approval	A.Joorabloo	H. Abhaji	A.Mobaraki
00	15. Jun. 2026	Issued for Comment	A.Joorabloo	H. Abhaji	A.Mobaraki
Rev	Date	Description	Prepared By	Checked By	Approved By

TARAZ BITUMEN PLANT PROJECT



GREEN CUBE IDEA
ENGINEERING & MINING CO.

DOCUMENT TITLE

DOCUMENT NUMBER

Page

PROCESS DATA SHEET FOR 500 M3
STORAGE TANKS

TRZ-PR-DS-014-01

1 of 2

GENERAL

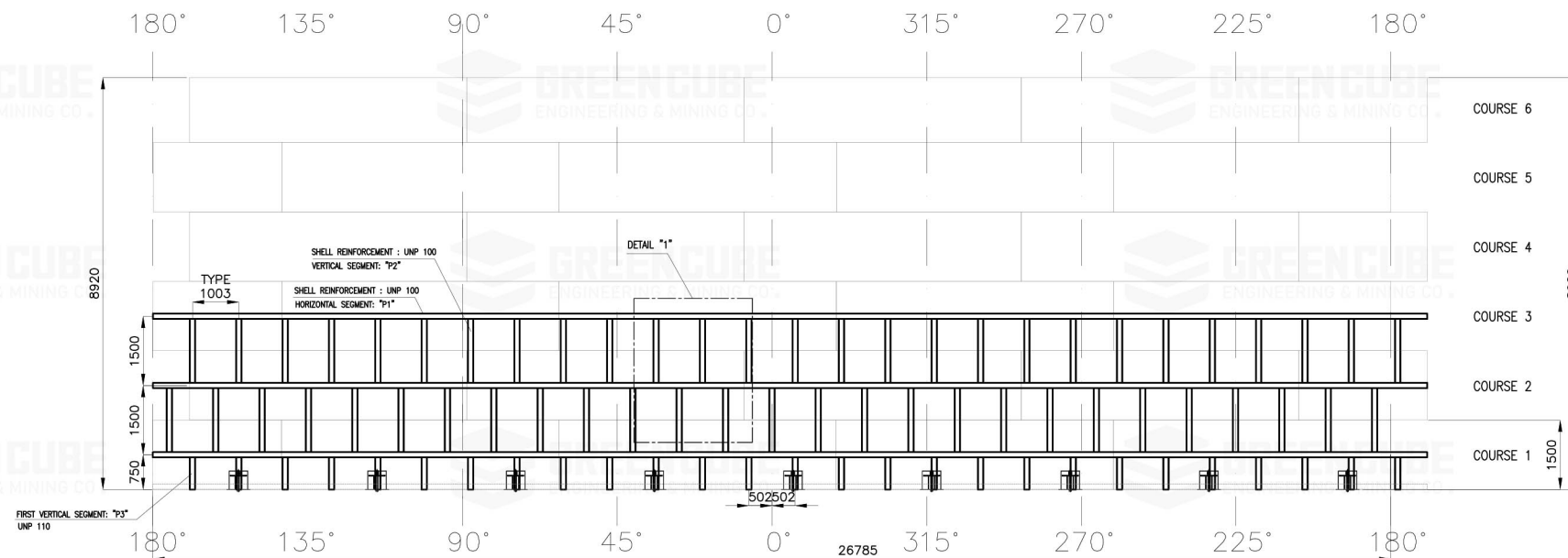
TANK No. :	TK-107	SERVICE :	Vacuum Bottom and Bitumen Storage Tank
No. REQUIRED :	1		
Size Limitations :		Tank Diameter :	8530 mm
Capacity Maximum :	500 m ³	Shell Height :	8940 mm
		Operating :	480 m ³
		Wall Insulation Thickness :	10 cm
Product Stored :			
Liquid :	Vacuum Bottom and Bitumen	Density :	950 Kg/m ³ at 120 °C
Pour Point :	>60 °C	Viscosity :	527 cP at 120 °C
		Vapor Pressure	0.01 bara at 120 °C
		Blanketing Gas :	-
Max. Operating Temp.	220 °C	Design Temp.	250 °C
Design Pressure	ATM (API 650)	Max. Liquid Level	8500 mm
		Filling Rate:	110 m ³ /h
		Emptying Rate:	110 m ³ /h

NOZZLE and MANHOLE SCHEDULE (for Shell)

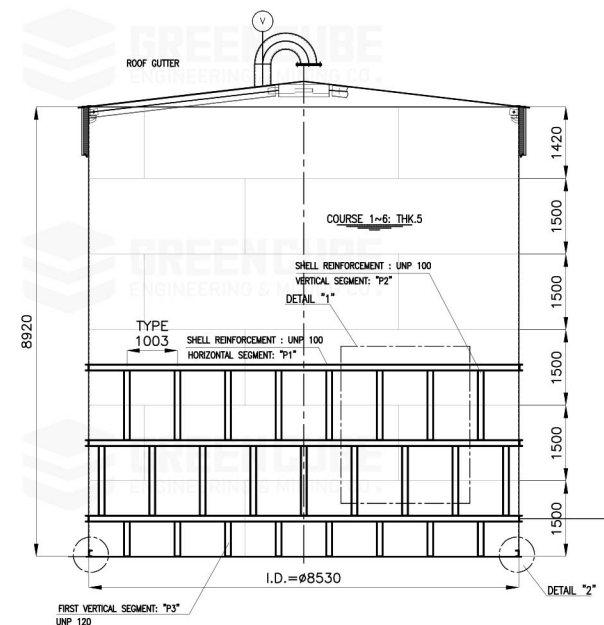
Mark	Service	Qty.	Size, NPS, or Dia. (In.)	Flange Class or Thick.	PROJECTION	ELEVATION	REMARK
N1	INLET	1	6"	150#	200 mm	500 mm	
N2	CIRCULATION LINE (JET NOZZLE)	1	6"	150#	200 mm	1100 mm	
N3	OUTLET	1	6"	150#	200 mm	500 mm	
TT 1/2	TEMPERATURE TRANSMITTER	2	2"	300#	200 mm	500 mm/8000 mm	
TG	TEMPERATURE GAUGE	1	2"	300#	200 mm	4000 mm	
LT	LEVEL TRANSMITTER	1	3"	300#	200 mm	300 mm	
Hs 1/2	HOT OIL SUPPLY	2	2"	150#	200 mm	250 mm	
Hr 1/2	HOT OIL RETURN	2	2"	150#	200 mm	900 mm	
D	DRAIN	1	4"	150#	200 mm	500 mm	
M1	SHELL MANHOLE	1	24"	-	200 mm		
M2	SHELL MANHOLE	1	24"	-	200 mm		

NOZZLE and MANHOLE SCHEDULE (for Fixed Roof and Bottom)

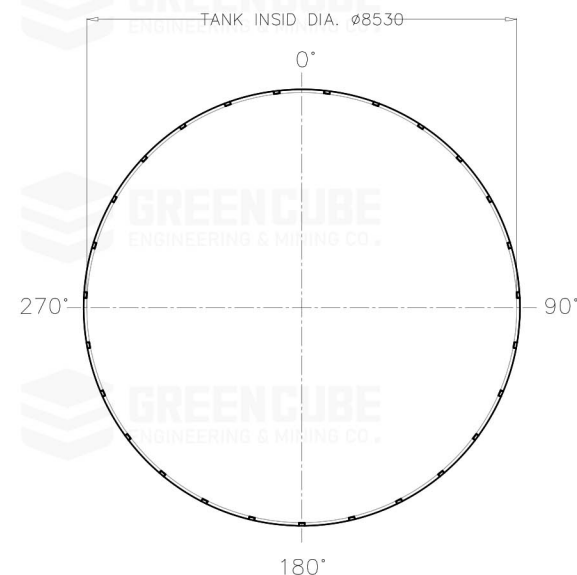
M3	ROOF MANHOLE	1	24"	-	200 mm		
V	VENT	1	8"	HAND MADE	1000 mm		
GH	GAUGE HATCH	1	8"	HAND MADE	200 mm		
LI	LEVEL INDICATOR	1	18"	HAND MADE	200 mm		



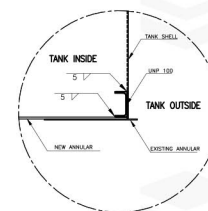
500 M3 TANKS SHELL PLATE REINFORCEMENT
SCALE: 1:200



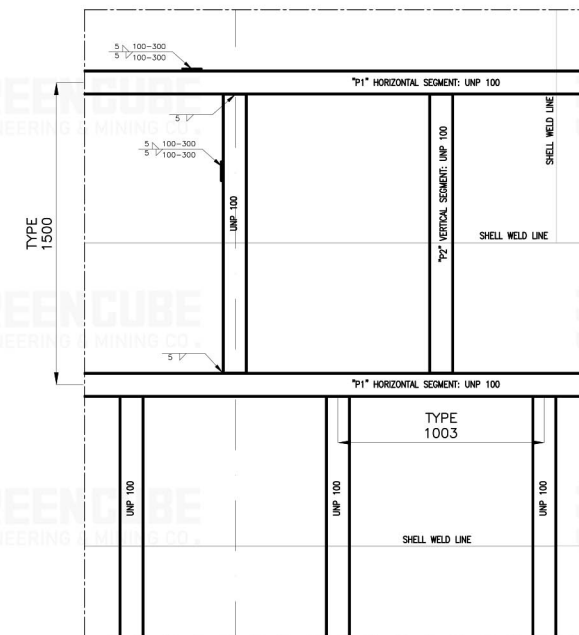
STORAGE TANK GENERAL ASSEMBLY
SCALE: 1:200



STORAGE TANK PLAN
SCALE: 1:200



DETAIL "2"
SCALE: 1:50



DETAIL "1"
SCALE: 1:50

NOTE

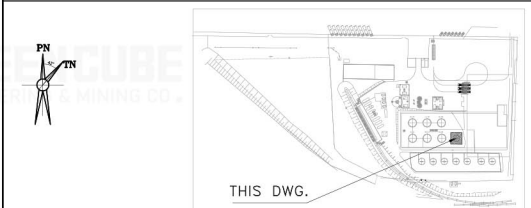
1) ALL DIMENSION IN "mm"

REINFORCEMENT & INSULATION SUPPORT
PART LIST (FOR ONE TANK)

ITEM	QTY.	DESCRIPTION	DIMENSION	MATERIAL	WEIGHT(Kg)
P1	81 M	HORIZONTAL SEGMENT U CHANNEL	UNP 100	ST-37-2	794
P2	54 No.	VERTICAL SEGMENT U CHANNEL	UNP 100*1380mm	ST-37-2	731
P3	27 No.	VERTICAL SEGMENT U CHANNEL	UNP 100*700mm	ST-37-2	186

TOTAL WEIGHT 1711

KEY PLAN



03					
02					
01					
00	ISSUED FOR COMMENT	A.J	H.A	A.M	20.Apr.2026
REV.	DESCRIPTION	PREP.	CHK.	APP.	DATE

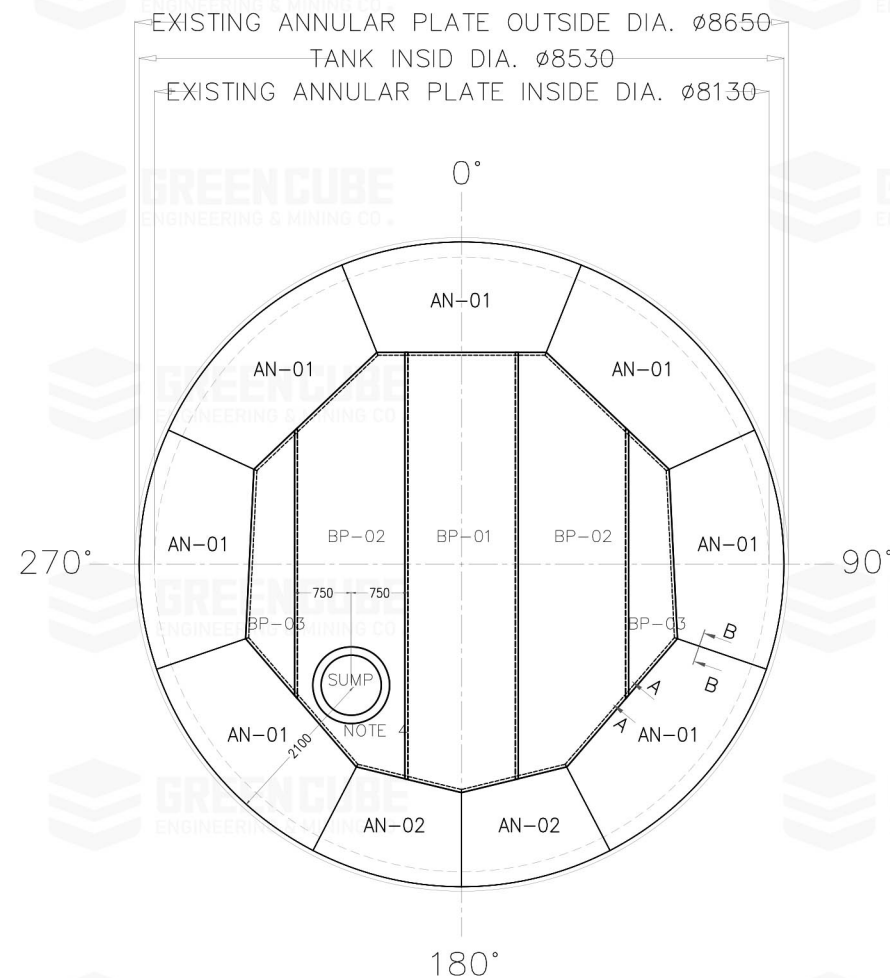
CLIENT: **Tarazbitum**
BITUMEN PRODUCTION

CONTRACTOR: **GREENCUBE IDEA**
ENGINEERING & MINING CO.

PROJECT: **TARAZ**
BITUMEN PLANT

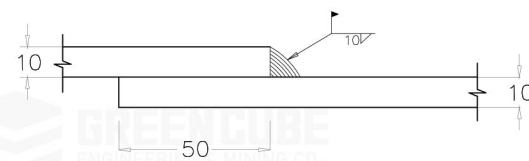
DRAWING TITLE:
500 M3 TANKS
REINFORCEMENT DRAWING

SCALE	SIZE	DOCUMENT NUMBER	SHEET	REV.
AS SHOWN	A3	TRZ-ME-DW-306	1 OF 1	00

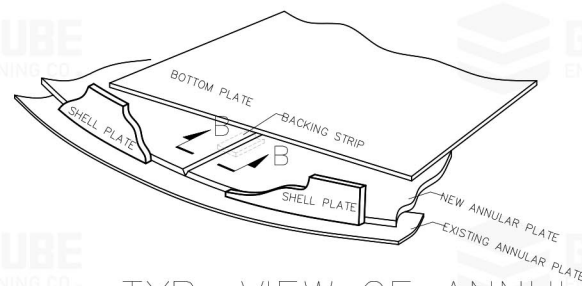


P L A N
BOTTOM & ANNULR PLATE

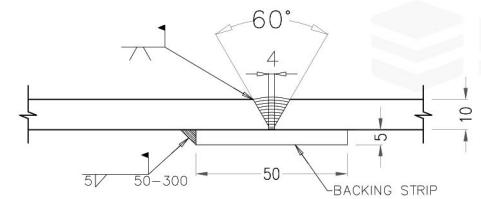
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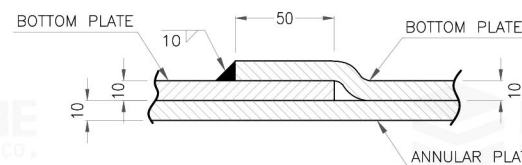
BOTTOM PLATE TYPICAL
LAP JOINT



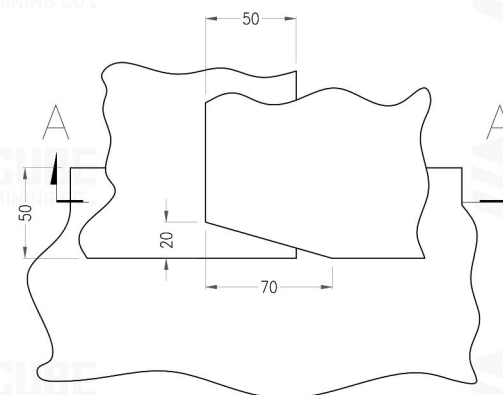
TYP. VIEW OF ANNULAR
PLATE JOINT



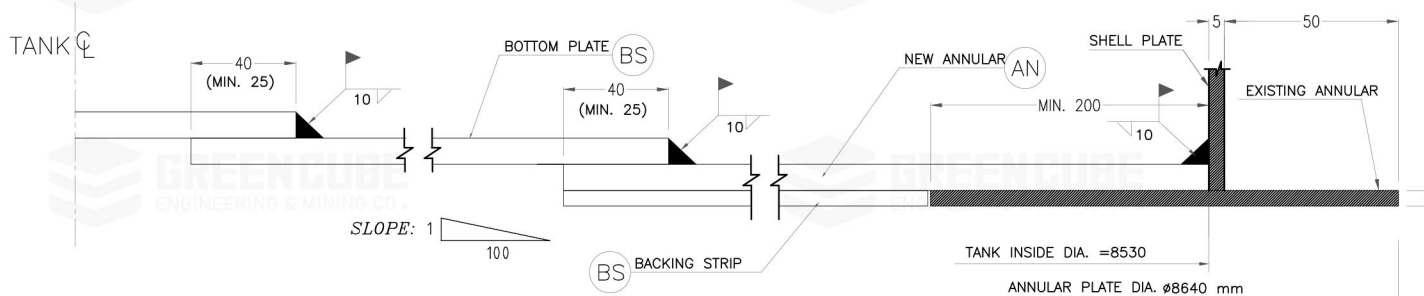
SECTION B - B



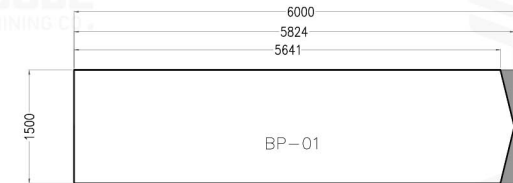
SECTION A - A



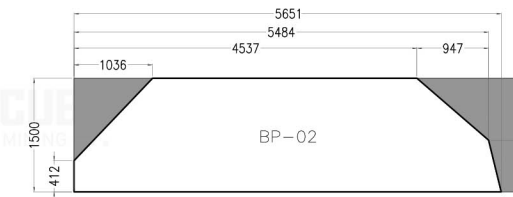
THREE LAP JOINT
DETAIL



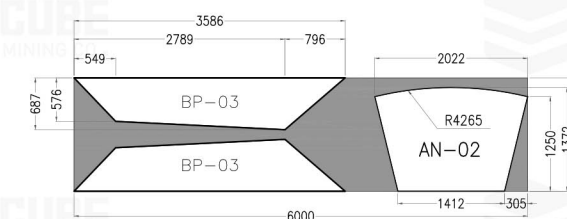
LAP JOINT IN BOTTOM



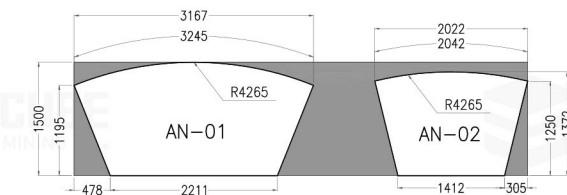
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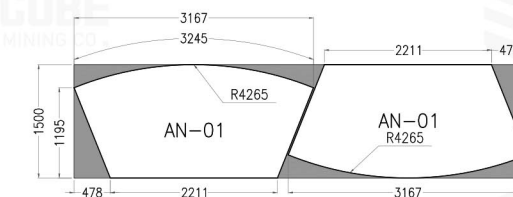
2 No. REQ'D.



1 No. REQ'D.



1 No. REQ'D.



3 No. REQ'D.

10 mm THK. ANNULAR & BOTTOM PLATE

NOTE

- 1) ALL DIMENSIONS ARE IN 'mm'.
- 2) ALL ANNULAR AND BOTTOM PLATE THICKNESS ARE 10mm.
- 3) ALL SIZES MUST BE CHECKED ON SITE BEFORE CUTTING.
- 4) THE SUMP MUST BE INSTALLED ON THE SIDE OF THE EXISTING 4" NOZZLE. FOR DETAIL SEE DWG NO. TRZ-ME-DW-305

PART LIST (FOR ONE TANK)

ITEM	QTY.	DESCRIPTION	DIMENSION	MATERIAL	WEIGHT(Kg)
AN	4.5	ANNULAR PLATE	PL. 6000x1500x10	ST-37-2	3181
BP	3.5	BOTTOM PLATE	PL. 6000x1500x10	ST-37-2	2471
BS	1	BACKING STRIP	F.BAR 50x5x6000	ST-37	12

TOTAL WEIGHT 5664

KEY PLAN



03					
02					
01					
00	ISSUED FOR COMMENT	A.J	H.A	A.M	09.Jun.2026
REV.	DESCRIPTION	PREP.	CHK.	APP.	DATE

CLIENT:



CONTRACTOR:



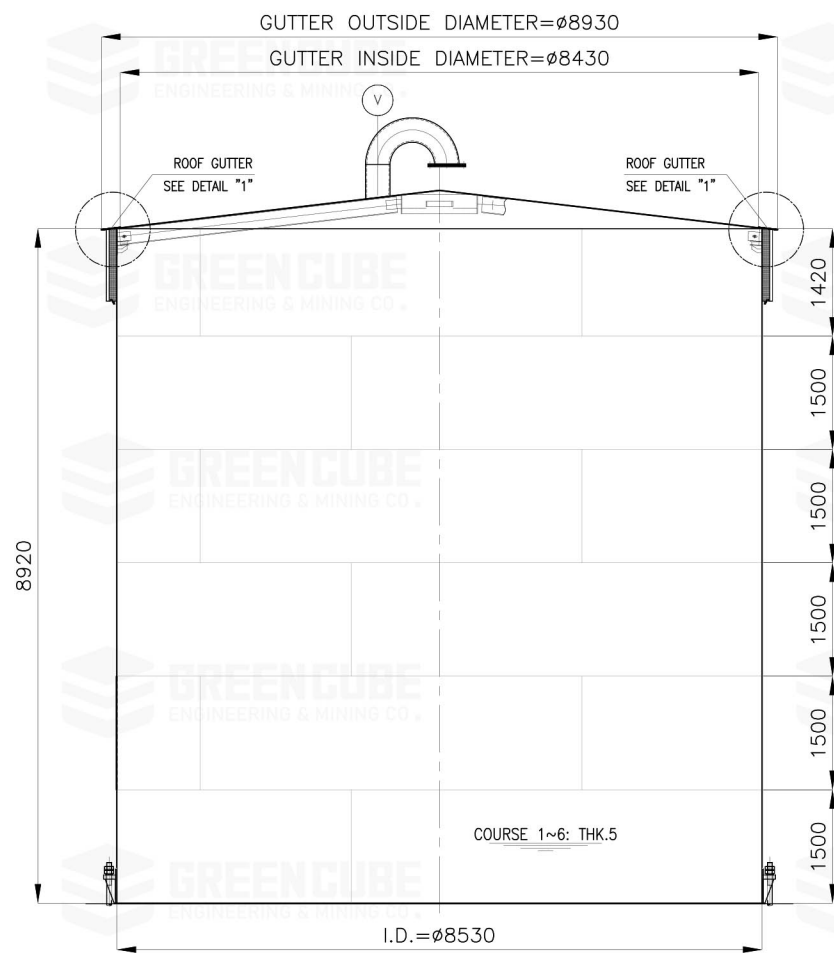
PROJECT:

TARAZ
BITUMEN PLANT

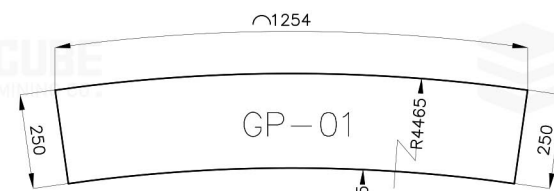
DRAWING TITLE:

500 M3 TANKS
BOTTOM PLATE ARRANGEMENT

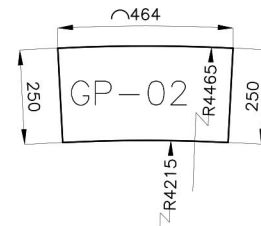
SCALE	SIZE	DOCUMENT NUMBER	SHEET	REV.
AS SHOWN	A3	TRZ-ME-DW-308	1 OF 1	00



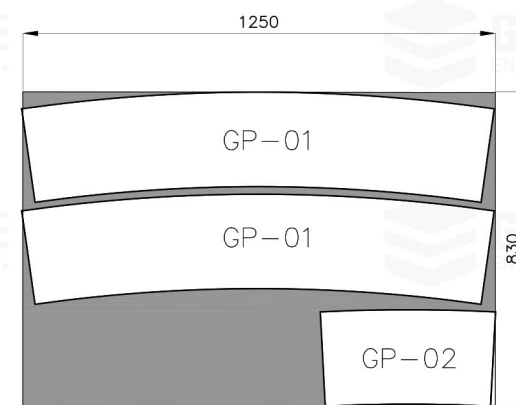
STORAGE TANK GENERAL VIEW
SCALE: 1:100



22 No's. REQ'D.

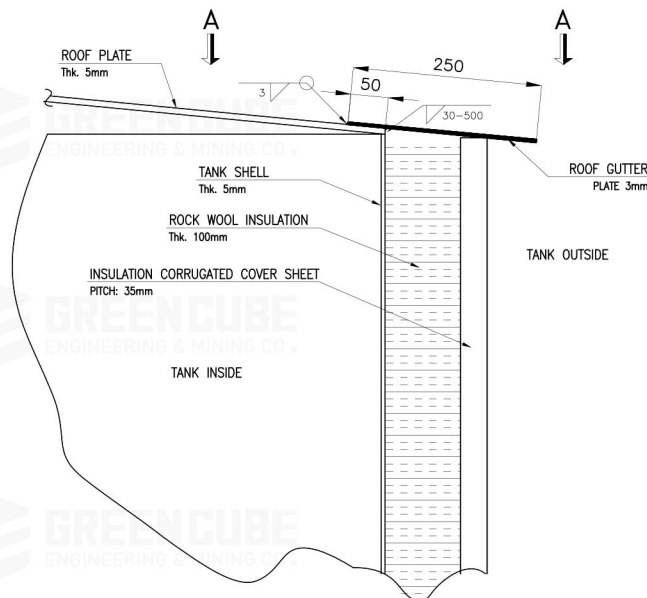


1 No's. REQ'D.

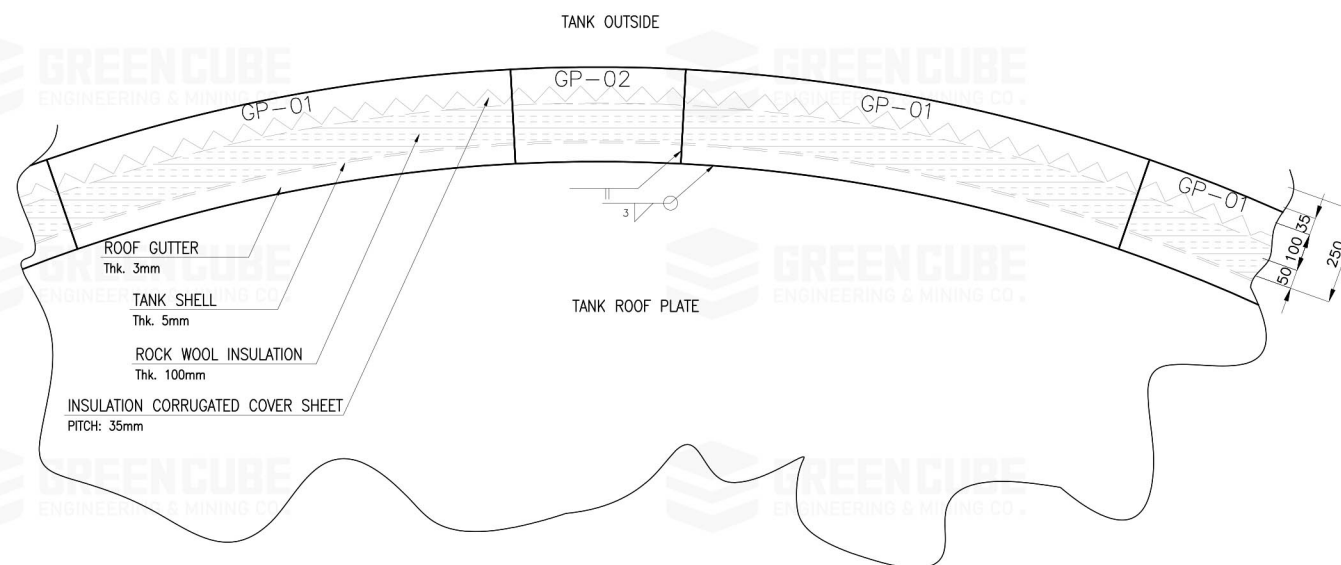


1 SHEET 830x1250x3 mm REQ'D. 2 SHEET 2500x1250x3 mm REQ'D.
NOTE "2" NOTE "2"

CUTTING PATTERN FOR GUTTER PLATE
SCALE: 1:20 22 Pcs. GP-01 & 1 Pcs GP-02 REQ'D.



DETAIL "1" (ROOF GUTTER)
SCALE: 1:10



VIEW "A-A"
SCALE: 1:20

NOTE

- 1) ALL DIMENSION IN "mm"
- 2) ALL SIZES MUST BE CHECKED ON SITE BEFORE CUTTING.

GUTTER
PART LIST (FOR ONE TANK)

ITEM	QTY.	DESCRIPTION	DIMENSION	MATERIAL	WEIGHT(Kg)
GP-01	22 No.	GUTTER PLATE	1250x250x3 mm	ST-37-2	158
GP-02	1 No.	GUTTER PLATE	125x250x3 mm	ST-37-2	2.5
TOTAL WEIGHT					160.5

KEY PLAN

03					
02					
01					
00	ISSUED FOR COMMENT	A.J	H.A	A.M	10.Jun.2026
REV.	DESCRIPTION	PREP.	CHK.	APP.	DATE

CLIENT:

Tarazbitum
BITUMEN PRODUCTION

CONTRACTOR:

GREENCUBE
ENGINEERING & MINING CO.

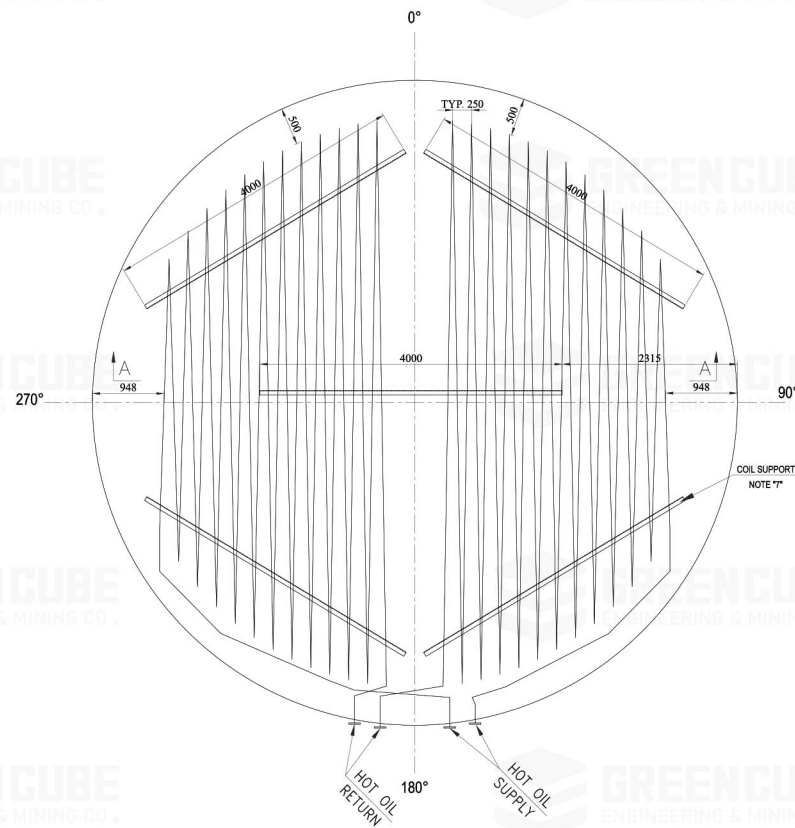
PROJECT:

TARAZ
BITUMEN PLANT

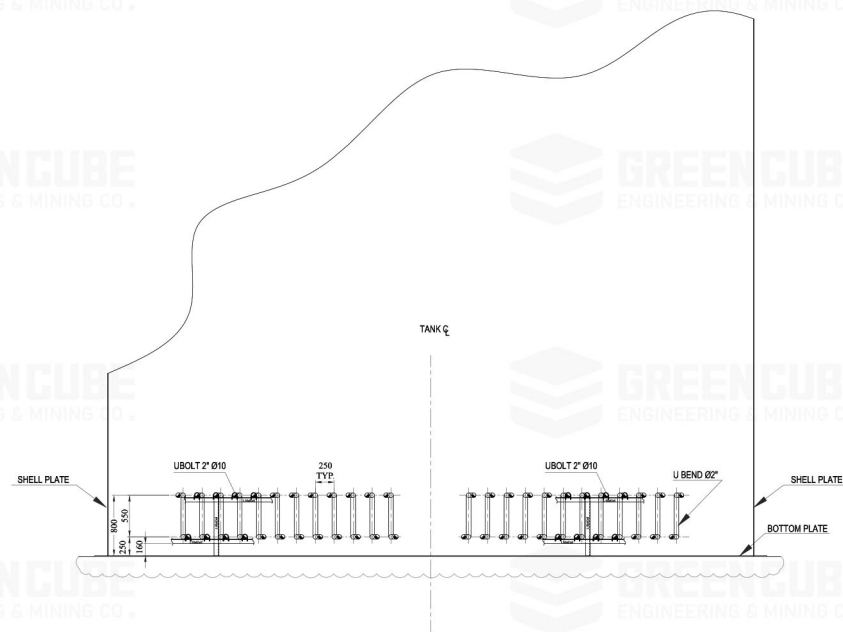
DRAWING TITLE:

500 M3 TANKS
ROOF GUTTER DETAIL

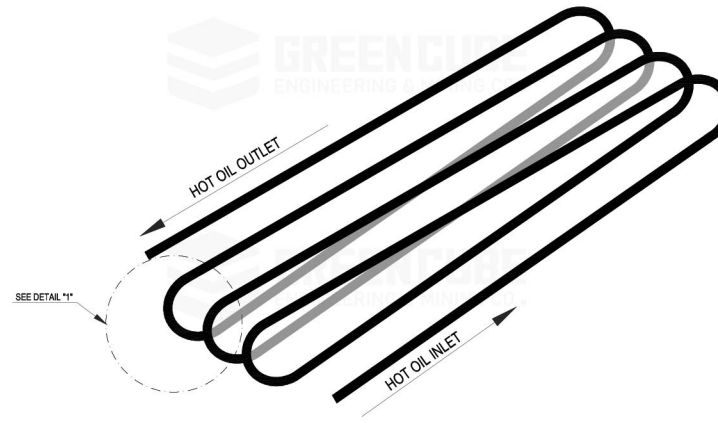
SCALE	SIZE	DOCUMENT NUMBER	SHEET	REV.
AS SHOWN	A3	TRZ-ME-DW-309	1 OF 1	00



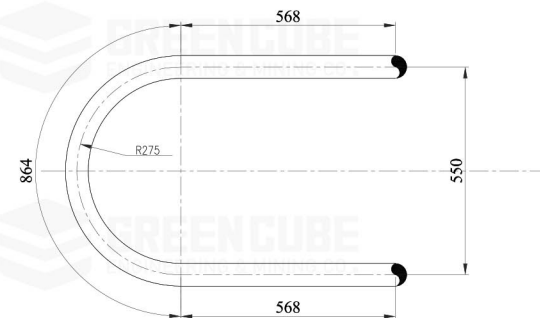
1000 M3 TANKS HOT OIL COIL PLAN
SCALE: 1:100



SECTION 'A-A'
SCALE: 1:100



HOT OIL COIL 3D VIEW
SCALE: N.T.S.



DETAIL "1": HOT OIL COIL U BEND
SCALE: 1:20

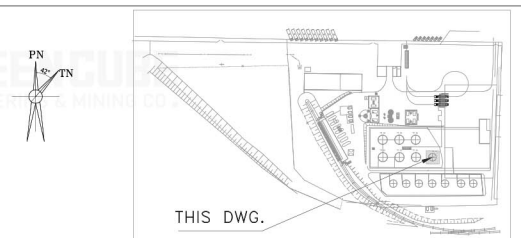
NOTE

- 1) ALL DIMENSIONS ARE IN "mm".
- 2) ALL ELEVATION DIMENSION BASE IS TOP OF BOTTOM PLATE.
- 3) TANK DIAMETER IS 8.53 m .
- 4) TOTAL LENGTH OF HOT OIL COIL IN EACH TANK IS 330m (2 Sec. PIPE 2").
- 5) 46 NO. U-BENDS 2" Ø 550mm ARE REQUIRED FOR EACH TANK.
- 6) FOR NOZZLE POSITION SEE "TANK NOZZLE ORIENTATION" DOCUMENT.
- 7) FOR COIL SUPPORTS USE L60x60x6 mm

HOT OIL COIL MATERIAL
FOR EACH TANK

ITEM	DESCRIPTION	SIZE	QTY.	UNIT
1	PIPE, ASME B36.10, BE, SMLS, SCH40, API5L GR.B	2"	300	M
2	U BEND PIPE, SMLS, SCH40, API5L GR.B	2"	34	No.
3	U BOLT 2" Ø10mm	2"	100	No.
3	L 60x60x6mm	60mm	60	M

KEY PLAN



03					
02					
01					
00	ISSUED FOR COMMENT	A.J	H.A	A.M	22-Jun-2026
REV.	DESCRIPTION	PREP.	CHK.	APP.	DATE

CLIENT: **Tarazbitum**
BITUMEN-PRODUCTION

CONTRACTOR: **GREENCUBE**
ENGINEERING & MINING CO.

PROJECT: TARAZ
BITUMEN PLANT

DRAWING TITLE:
500 M3 TANKS
INTERNAL HOT OIL COIL

SCALE	SIZE	DOCUMENT NUMBER	SHEET	REV.
AS SHOWN	A3	TRZ-ME-DW-307	1 OF 1	00

