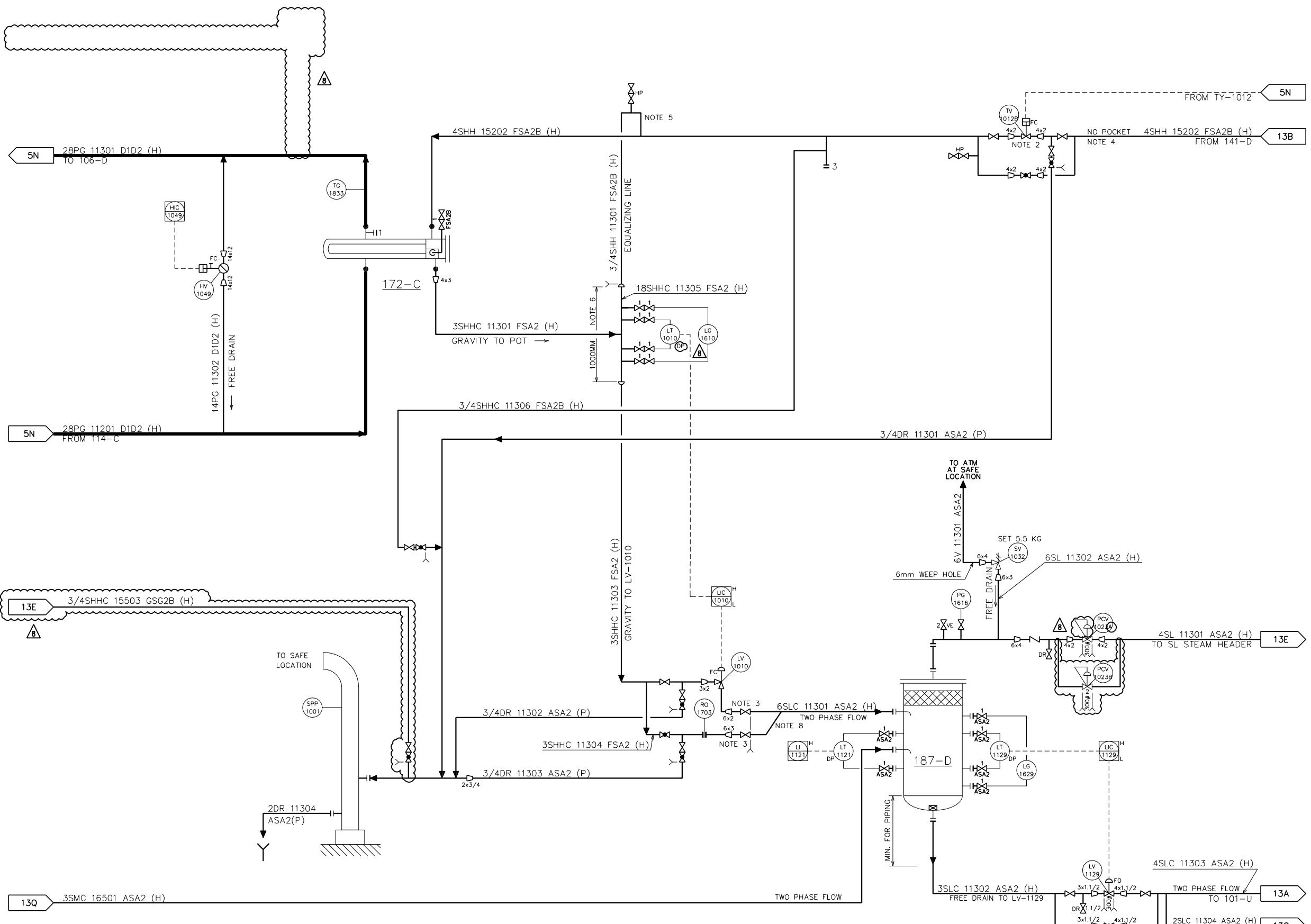


172-C METHANATOR HEATER		
DES./OPER.TEMP.	°C	454/302; 316
DES./OPER.PRESS.	kg/cm ² G	40/35.4
INSULATION/THICK.	mm	HOT/120
MATERIAL		2.1/4Cr-1Mo
DIMENSION (ID SHELLxL)	mm	1000x3000
SURFACE AREA	m ²	123

187-D HP CONDENSATE FLASH DRUM		
DES./OPER TEMP.	°C	275/153
DES./OPER.PRESS.	kg/cm ² G	5.5/4.2
INSULATION/THICK.	mm	HOT/80
MATERIAL		CS
DIMENSION (IDxTLxL)	mm	492x3350
VOLUME	m ³	0.66

- NOTES
- FOR GENERAL NOTES AND SYMBOLS SEE DRAWING 4A, 4B.
 - TV-1012B TO HAVE MINIMUM STOP AT 5 PERCENT OPEN BY DCS LOGIC.
 - STRAIGHT LENGTH AFTER REDUCER IS MIN. 10 TIMES OF PIPING DIA.
 - MIN. 10D OR 500mm
 - NO POCKET UP TO TV-1012B.
 - PIPING CONNECTION OF EQUALIZING LINE SHALL BE CONNECTED TO THE TOP OF PIPING.
 - LOCATE CENTER OF 18" PIPE POT 400MM BELOW BOTTOM TANGENT LINE OF 172-C
 - DELETED.
 - 45 DEGREES CONNECTION.



RE-ISSUED FOR CONSTRUCTION (AFC-3)	T5	AFA	DU	HOM	ANS	HK	US	OL	SV	L	14/11/13
✓ RE-ISSUED FOR CONSTRUCTION (AFC-2)	T5	AFA	DU	HOM	ANS	HK	US	OL	SV	L	28/06/13
✓ RE-ISSUED FOR CONSTRUCTION (AFC-1)	T5	AFA	DU	HOM	ANS	HK	US	OL	SV	L	10/06/13
✓ ISSUED FOR CONSTRUCTION (AFC)	EB	AFA	DU	RW	AM	SPK	US	OL	SV	L	26/11/12
✓ ISSUED FOR APPROVAL (AFD-1)	EB	AFA	DU	RW	U	SPK	US	SV	SV	L	29/06/12
✓ ISSUED FOR APPROVAL (AFD-2)	EB	AFA	DU	RW	U	SPK	US	SV	SV	L	29/06/12
✓ ISSUED FOR DETAIL DESIGN (AFT-1)	EB	AFA	JAK	YSH	BOP	JAK	SH	SV	SV	L	14/06/12
REV.	DESCRIPTION	DRW	CND	CHND	APWD	HW	AUT	ISSUE	DATE		

REVISIONS
PROJECT NAME : KALTIM-5 PROJECT
2500 MTPD AMMONIA AND 3500 MTPD UREA
BONTANG, EAST KALIMANTAN, INDONESIA
CLIENT NAME : PT. PUPUK KALIMANTAN TIMUR

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CONTRACTOR : PT. KALININDAYA PERBAKA TEHNIK, ☐ Toyo Engineering Corporation
ABR. FOR ISSUE : C=CLIENT
S=SUBCONTRACTOR
S-SITE
V=VENDOR
ISSUE MARK : 1
14/Nov/13

CONTRACTOR WORK NUMBER : 10107 / BA096300 / 11-018-01

PIPING & INSTRUMENT FLOW DIAGRAM
METHANATOR PREHEATER

SCALE : DWG. NO. K5-01-E1-PD-5N1-T
DOC. NO. K5-01-E1-PD-O15-T SHEET 015/073 REV.8