

**T-140**  
 DE-ETHANIZER TOWER  
 14" O.D. X 44'-0" S.S. VERT.  
 MAWP TOP SECT. 400 PSIG AT -50F  
 MAWP BOTTOM SECT. 400 PSIG AT -20/300F  
 2-14FT SECTIONS OF  
 IMTP-50 PACKING

**E-150**  
 DE-ETH. REBOILER  
 1-8" X 6" BJU  
 24-3/4" X 6' TUBES  
 SA 214, 12 GA  
 SHELL MAWP 400 PSIG AT 300F  
 TUBES MAWP 150 PSIG AT 500F  
 DUTY 428,129BTU/H  
 29 SQ FT

**E-160**  
 DE-ETH. OH COND./DE-BUT. FEED EXC.  
 2-4" X 10' NEN  
 12-5/8" X 10' TUBES  
 SA 214, 12 GA  
 SHELL MAWP 400 PSIG AT 300F  
 TUBES MAWP 400 PSIG AT 300F  
 DUTY 38,709BTU/H  
 39 SQ FT

**E-170**  
 DE-BUT. FEED/BOTTOM EXC.  
 2-4" X 10' NEN  
 12-5/8" X 10' TUBES  
 SA 214, 12 GA  
 SHELL MAWP 400 PSIG AT 300F  
 TUBES MAWP 400 PSIG AT 300F  
 DUTY 54,164BTU/H  
 39 SQ FT

**"ISSUED FOR CONSTRUCTION"**

REV.	ITEM	BY	DATE

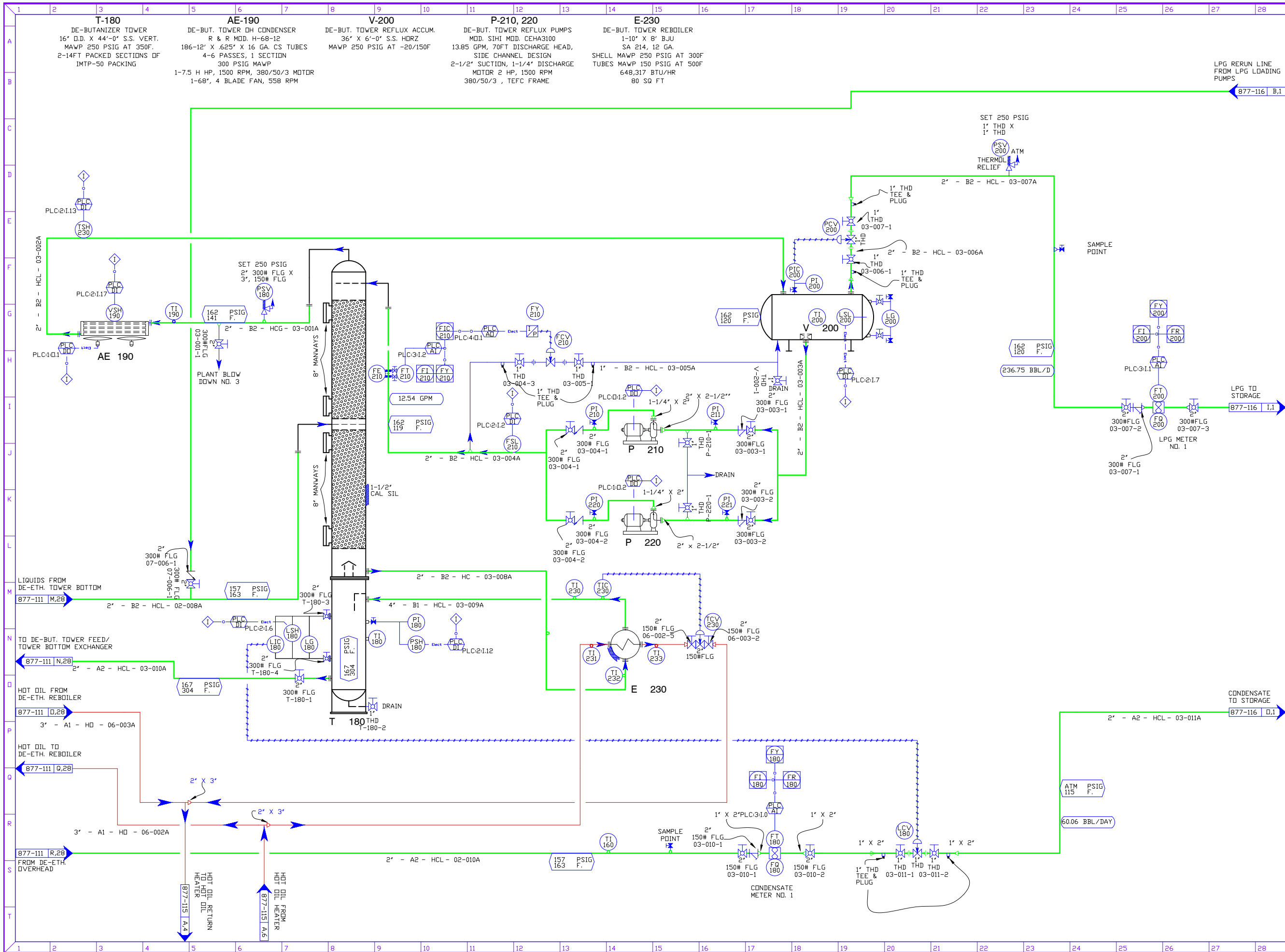
REVISIONS

**H & H TECHNICAL LLC**  
 1949 SUGARLAND DRIVE, SUITE 134  
 SHERIDAN, WYD. 82801 307-672-0743

**PT. SUMBER DAYA KELOLA**  
 JL. WIJAYA VI NO. 11, MELAWAI,  
 KEBAYORAN BARU, JAKARTA SELATAN, 12160  
 INDONESIA

CEMARA REFRIGERATION PLANT  
 UPGRADE  
 P & ID NO. 2  
 DE-ETH. TOWER

MBH DRAWN BY	APPROVED BY	NDNE SCALE	0 REV.
877 JOB NO.	10/22/10 DATE	877-111 DRAWING NO.	



**"ISSUED FOR CONSTRUCTION"**

REV.	ITEM	BY	DATE

REVISIONS

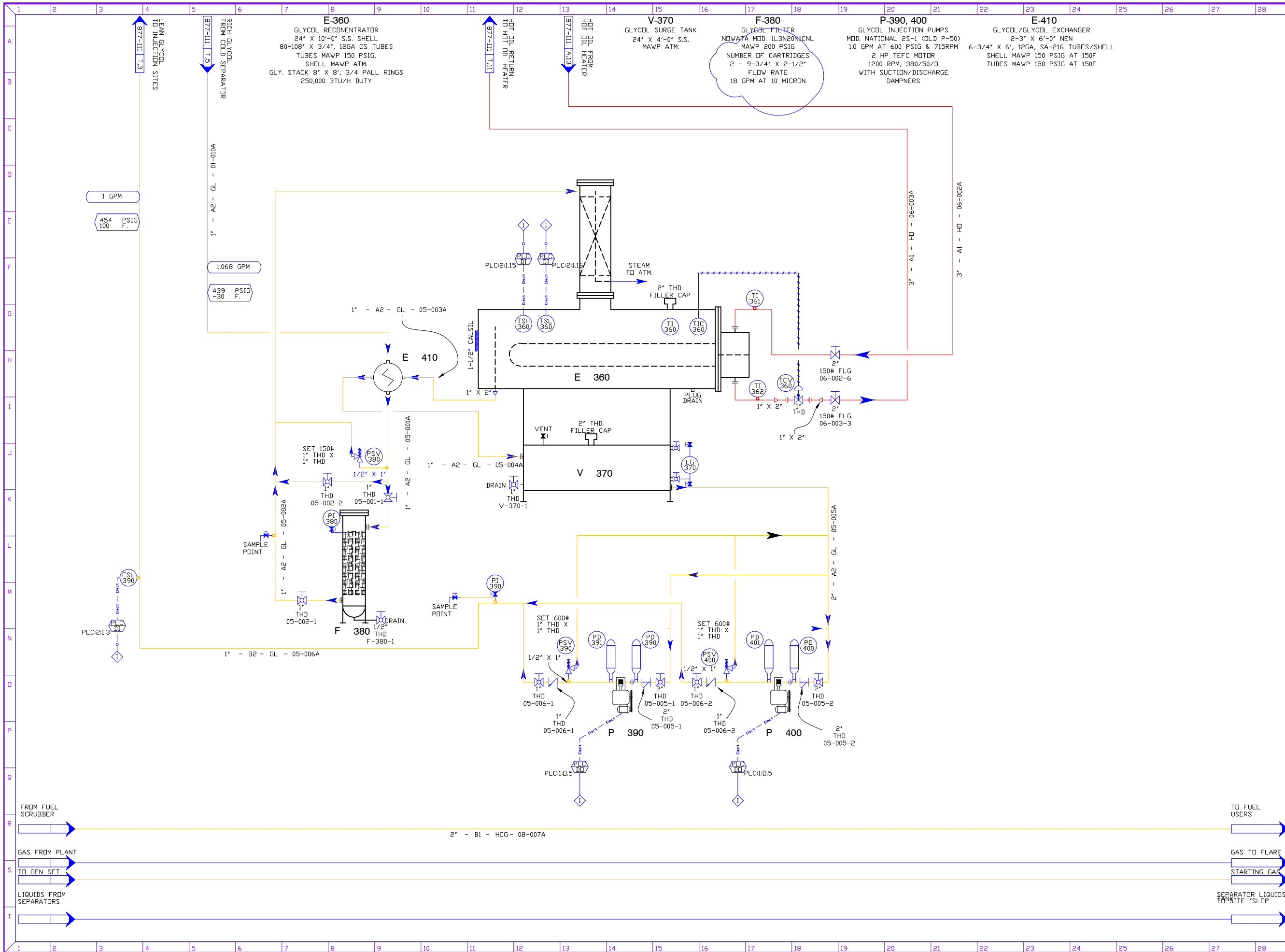
**H & H TECHNICAL LLC**  
 1949 SUGARLAND DRIVE, SUITE 134  
 SHERIDAN, WY. 82801 307-672-0743

**PT. SUMBER DAYA KELOLA**  
 JL. WIJAYA VI NO. 11, MELAWAI,  
 KEBAYORAN BARU, JAKARTA SELATAN, 12160  
 INDONESIA

CEMARA REFRIGERATION PLANT  
 UPGRADE  
 P & ID NO. 3  
 DE-BUT. TOWER

MBH DRAWN BY	APPROVED BY	NDNE SCALE	0 REV.
877 JOB NO.	4/20/10 DATE	877-112 DRAWING NO.	





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REV.	ITEM	BY	DATE
1	CORRECTED DATA FOR F-380	MBH	2/15/13

REVISIONS

**H & H TECHNICAL LLC**  
 1949 SUGARLAND DRIVE, SUITE 134  
 SHERIDAN, WYD. 82801 307-672-0743

**PT SUMBER DAYA KELOLA**  
 JL. WIJAYA VI NO. 11, MELAWAI,  
 KEBAYORAN BARU, JAKARTA SELATAN, 12160  
 INDONESIA

CEMARA REFRIGERATION PLANT  
 UPGRADE  
 P & ID NO. 5  
 GLYCOL UNIT

MBH DRAWN BY	APPROVED BY	NDNE SCALE	0 REV.
877 JOB NO.	2/20/10 DATE	877-114 DRAWING NO.	





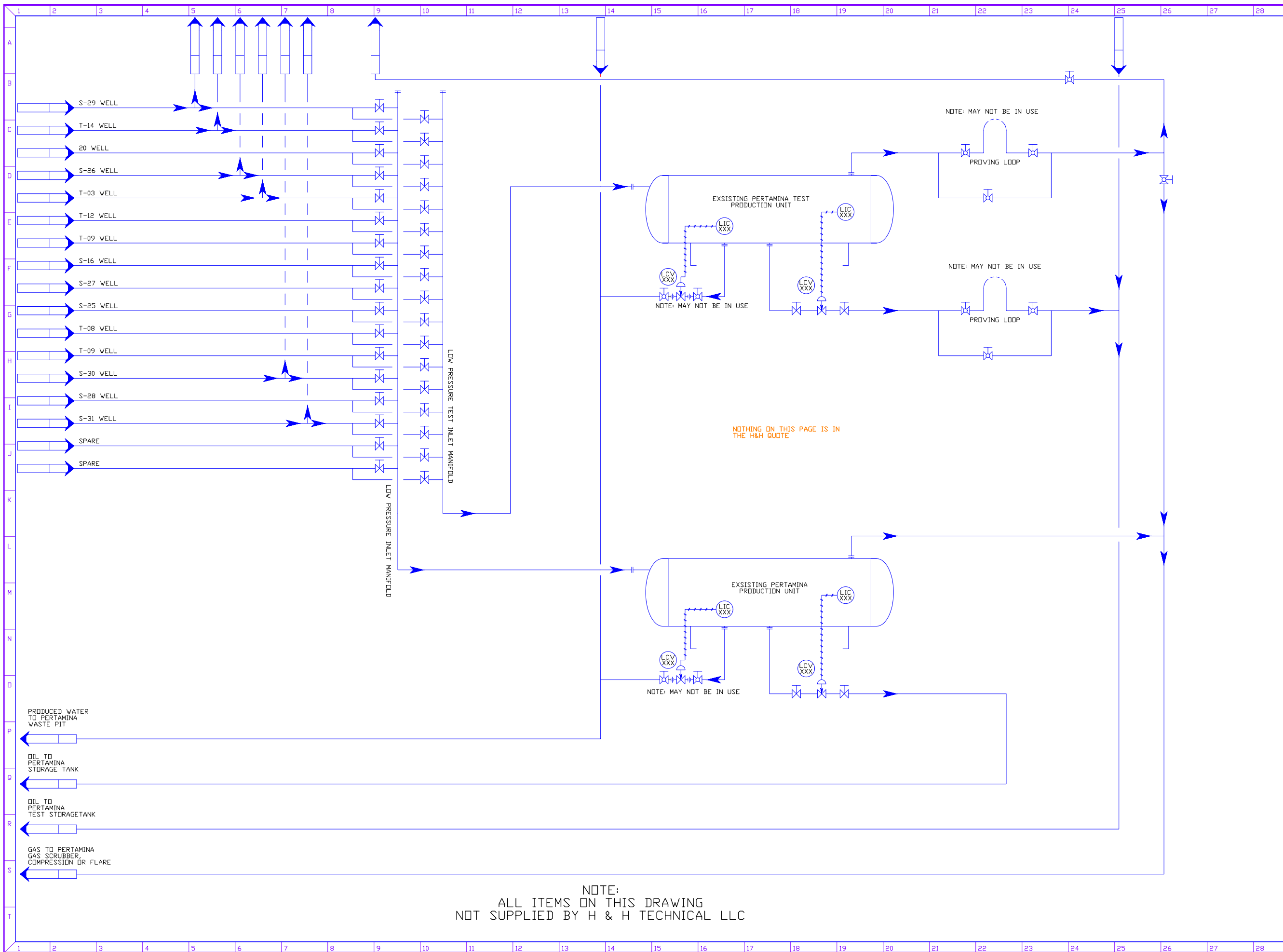












NOTHING ON THIS PAGE IS IN THE H&H QUOTE

NOTE:  
ALL ITEMS ON THIS DRAWING  
NOT SUPPLIED BY H & H TECHNICAL LLC

**"ISSUED FOR CONSTRUCTION"**

REV.	ITEM	BY	DATE

REVISIONS			
<b>H &amp; H TECHNICAL LLC</b> 1949 SUGARLAND DRIVE, SUITE 134 SHERIDAN, WYO. 82801 307-672-0743			
<b>PT. SUMBER DAYA KELOLA</b> JL. WIJAYA VI NO. 11, MELAWAI, KEBAYORAN BARU, JAKARTA SELATAN, 12160 INDONESIA			
CEMARA REFRIGERATION PLANT UPGRADE P & ID NO. 12 PERTAMINA PRODUCTION AREA			
MBH DRAWN BY	APPROVED BY	NDNE SCALE	0 REV.
877 JOB NO.	4/20/10 DATE	877-121 DRAWING NO.	