

LIGO-8940023-00-13

* * * FACSIMILE MESSAGE * * *

CBI TECHNICAL SERVICES
1501 NORTH DIVISION STREET
PLAINFIELD, ILLINOIS 60544 8929



FAX NUMBER IS: 815 439 6011
VERIFY NUMBER IS: 815 439 6322

PAGE: 1 OF: 2

DATE: July 14, 1994

TO: Larry Jones
Caltech

FAX NO.: 818/304/9834

FROM: Warren A. Carpenter
Process Engineering Department
CBI Technical Services Co.

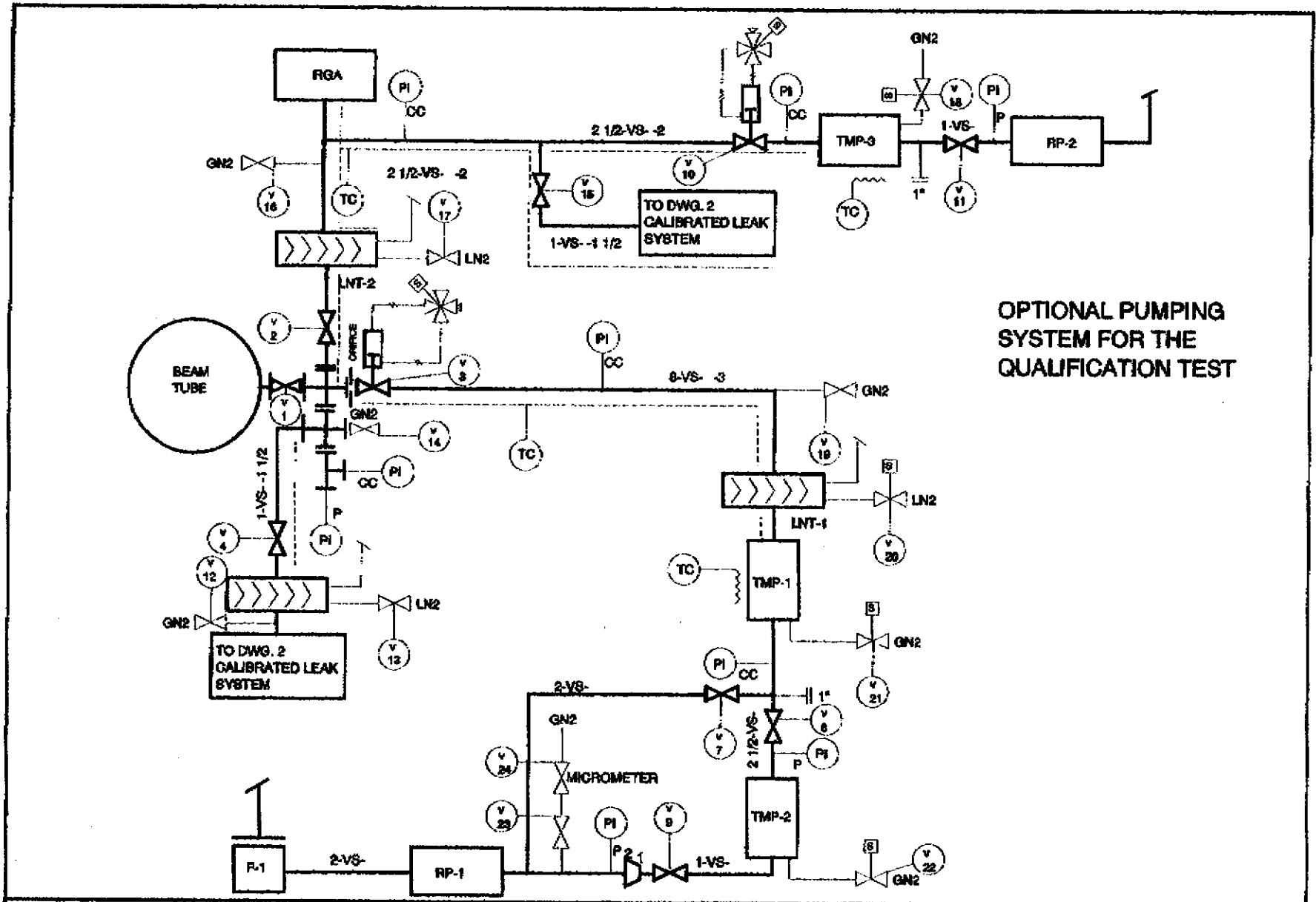
RE: Qual. Test P&I
LIGO QUALIFICATION TEST
FACILITY
930212 File #2.2.5

Attached is a P&I of a revised pumping system for the RGA on the qual. test system which reduces the length of the 2 1/2 " line to 32 inches. In addition, the conductance of the system is somewhat larger than calculated because this distance includes the LN2 trap which has a large conductance. Please have Rai review this layout. We are trying to provide a good quality system but we are also trying to use the fittings that are already purchased in order to prevent a schedule change which would happen if we had to repurchase some of the fittings. The fittings (such as crosses and tees which are not in stock can take up to 3-4 weeks to receive).

Let us know what Rai recommends.

Regards,

Warren A. Carpenter
Senior Engineer



OPTIONAL PUMPING SYSTEM FOR THE QUALIFICATION TEST



P & I DIAGRAM
 VACUUM SYSTEMS
 QUALIFICATION TEST
 UGO PROJECT
 CALTECH

BY WAC GHD DATE 7/15/94
 R. C. WEBER
 ENGINEERING SUPERVISOR

CONTRACT NO. 890212	
DWG # 511	REV # 0