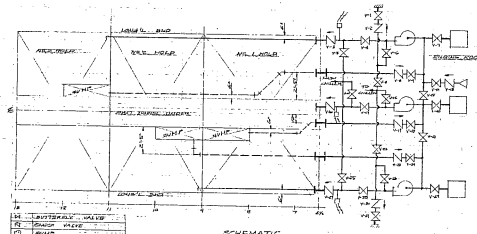

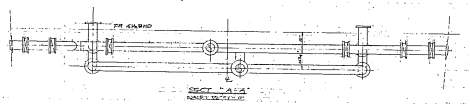

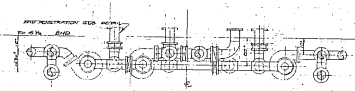

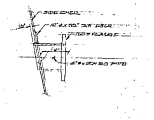

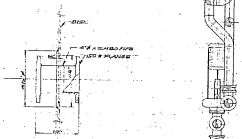

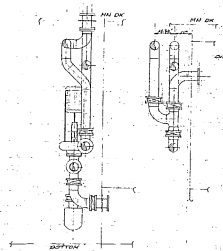

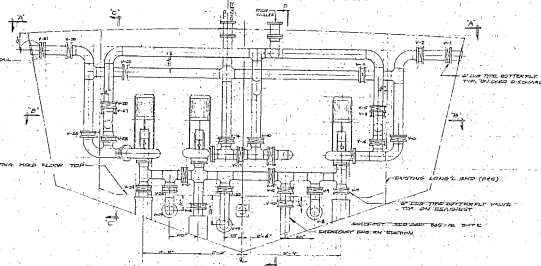

NOTE

PIPING C GATION PIPING IS TO BE 40 STEEL STRAIGHT SEAM WELDED PIPE, ASTM A53 GR B, EXCEPT AS NOTED OTHERWISE. ALL PENETRATIONS TO BE WELDED. ALL PIPE TO BE STEEL PIPE AND BE CLEAN AND FREE OF ALL FOREIGN MATERIAL.

2. SCHEDULE PIPING IS TO BE 40 SCH 40 STEEL PIPE, ASTM A53, GRADE "A" (FLOW) "CU" AND PENETRATION SLEEVES AND BILGE DISCHARGE USE SCH 80 IN LIEU OF SCH 40.

3. UNLESS APPLICABLE PIPING IS TO BE FABRICATED IN SECTIONS AND MATCH MARKED PRIOR TO FINAL ASSEMBLY.

VALVES: 1. ALL SCH 40 PIPING AND OTHER SYSTEMS AS LISTED HEREIN SHALL BE BUTTERFLY VALVES TO BE SIZED AS PER SPECIFICATION, BODY ALL BRONZE ASTM B-62, DISC ALL BRONZE ASTM B-584, STEEL, SHAFT ASTM A-564, GR 630, STAINLESS STEEL.

2. SEE VALVE LIST TO BE SUCH TYPE BUTTERFLY VALVES - RESILIENT SEATED (EXCEPT AS NOTED) ALL BRONZE BODY, ALL BRONZE DISC, BUNA-N SEAT, ASTM B-584.

3. CHECK VALVES ARE TO BE SWING TYPE, BRONZE BODY, BRONZE DISC, NICKEL ALUMINUM BRONZE TRIM, BUNA-N SEAT, ASTM B-62.

FLANGES: 1. 150 # STD. SLIP-ON OR WELD NECK FLANGES.

WELDS: 1. 3/16 FULL CIRCUMFERENCE FILLET WELDS TO BE RATED AT 1100 LBS @ 300 FT. PER LINEAR INCH. SEE MIL-STD-248 "WELDING PROCEDURE AND PERFORMANCE QUALIFICATION" FOR WELDING PROCEDURE AND WELDER QUALIFICATIONS.

2. ALL PIPING SHALL BE WELDED EXCEPT WHERE FLANGED JOINTS ARE SHOWN. WELDING SHALL CONFORM TO ASME CODE FOR PRESSURE PIPING, B31.1 - 1967 EDITION.

SYM	REVISIONS	BY	DATE
A	ADDED VALVES 7-8 & 9-10	TE	10/7/71

ZONE:

TONY BERAN

B.F. JENSEN & ASSOCIATES, INC., P.S.
NAVAL ARCHITECTS AND MARINE ENGINEERS
221 SAUSALITO (OLD) BLVD. (415) 331-9 SAUSALITO, CA 94965

TITLE: 78'-2" STL. FISHING VESSEL
S.W. CIRCULATION SYSTEM

DRN	DATE 10/7/71	DWG NO	REV
CKD	DATE	7898-1501	
APP	DATE		
SCALE AS NOTED		SHT 1 OF 1	

Exhibit 199
Page 35a of 36