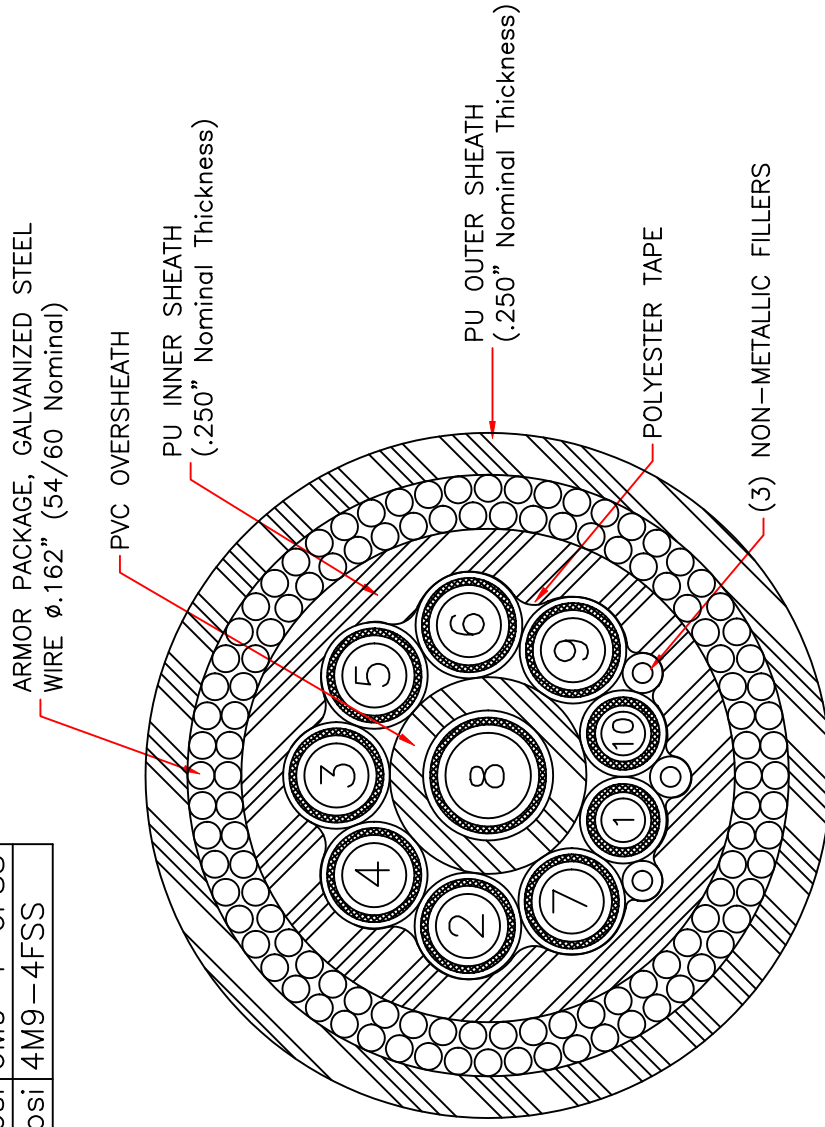


ID	MATERIAL	TYPE	SIZE	W.P.	FITTING
8	BESNO P40 TLO	8M9	1/2"	5000psi	8M10-8FSS
2-7&9	BESNO P40 TLO	6M9-1	3/8"	5000psi	6M9-1-6FSS
1&10	BESNO P40 TLO	4M9	1/4"	7000psi	4M9-4FSS

ID	ABRV	HOSE FUNCTION
1	SP	SPARE
2	AMON	ANNULUS MONITOR
3	AMV	ANNULUS WING VALVE
4	AMV	ANNULUS MASTER VALVE
5	PMV	PRODUCTION MASTER VALVE
6	XOV	CROSSOVER VALVE
7	CIV	CHEMICAL INJECTION VALVE
8	CHEM	CHEMICAL SUPPLY
9	PMV	PRODUCTION WING VALVE
10	SCSSV	DOWN HOLE SAFETY VALVE



UMBILICAL PERFORMANCE SUMMARY

NOMINAL O.D.: 4.11"
 WEIGHT IN AIR: 13.3 lbf/ft
 (Hoses Filled, Interstices Dry)
 WEIGHT IN WATER: 7.9 lbf/ft
 (Hoses Filled, Interstices Flooded)
 MINIMUM BEND RADIUS (Storage): 37"
 MINIMUM BEND RADIUS (Operating): 50"
 MINIMUM BREAKING STRENGTH: 70 tons
 MAXIMUM WORKING LOAD: 17.5 tons

DO NOT SCALE DRAWING	CUSTOMER/PROJECT: CAMERON/HARDY	
APPROVALS	DATE	TITLE:
DRAWN BY: C. MACDONALD	24SEP96	UMBILICAL CROSS SECTION
CHECKED BY:		CONTRACT: 18266
APPROVED BY:		CLASS: ME
		DRAWING No: 3135
		SHEET: 1/1
		REV: 2

