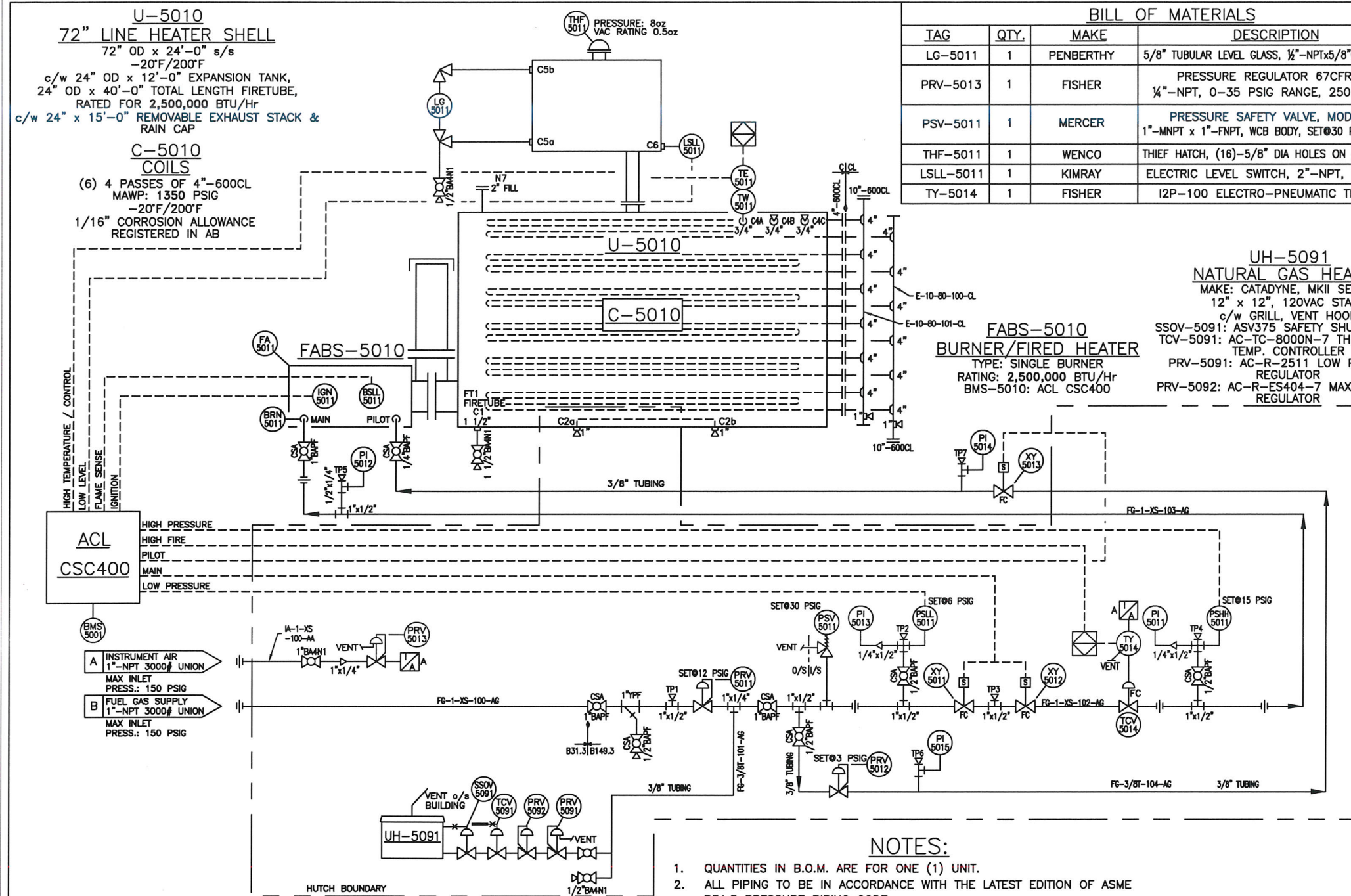




END CONNECTION:
FLANGED RF= 1
FLANGED RTJ=2
BUTTWELDED= 3
THREADED F-F= 4
THREADED M-F= 5
SOCKETWELD= 6
SW/THRD= 7
TUBING= 8

VALVE LEGEND

VALVE TYPE:
BALL (R.P.)=BA
BALL (F.P.)=BAF
NEEDLE=NE
FULL BODY CHECK=C
GATE=GA
GLOBE=GL
PISTON CHECK=CP
Y-STRAINER=Y

ANSI CLASS:
CL150=A
CL300=B
CL400=C
CL600=D
CL900=E
CL1500=F
CL2500=G

VALVE SERVICE:
NORMAL TEMP, SWEET PROCESS=1
NORMAL TEMP, SOUR PROCESS=1S
LOW TEMP, SWEET PROCESS=2
LOW TEMP, SOUR PROCESS=2S

THREADED/SOCKET WELDED CLASS:
API 602
CLASS 800=H
CLASS 1500=J
CLASS 2500=K
250 WOG=L
1000 WOG=M
2000 WOG=N
2160 WOG=O
3000 WOG=P
3600 WOG=Q
6000 WOG=R
10000 WOG=S
TUBING RATING=T

BILL OF MATERIALS

TAG	QTY.	MAKE	DESCRIPTION
LG-5011	1	PENBERTHY	5/8" TUBULAR LEVEL GLASS, 1/2"-NPTx5/8"GLASSx3/8"DRAIN
PRV-5013	1	FISHER	PRESSURE REGULATOR 67CFR-362SC 1/4"-NPT, 0-35 PSIG RANGE, 250 PSIG MAWP
PSV-5011	1	MERCER	PRESSURE SAFETY VALVE, MODEL: 9100 1"-MNPT x 1"-FNPT, WCB BODY, SET@30 PSIG, "E" ORIFICE
THF-5011	1	WENCO	THIEF HATCH, (16)-5/8" DIA HOLES ON A 10 3/8" BCD
LSLL-5011	1	KIMRAY	ELECTRIC LEVEL SWITCH, 2"-NPT, MODEL: CEC2
TY-5014	1	FISHER	I2P-100 ELECTRO-PNEUMATIC TRANSDUCER

BILL OF MATERIALS (SPARTAN SUPPLIED)

TAG	QTY.	MAKE	DESCRIPTION
BMS-5010	1	ACL	COMBUSTION SAFETY CONTROLLER, MODEL: CSC400
PI-5014 PI-5015	2	WINTERS	PRESSURE GAUGE, LIQUID FILLED, SS 2 1/2" FACE x 1/4"-NPT, 0-15 PSIG
PI-5011-13	3	WINTERS	PRESSURE GAUGE, LIQUID FILLED, SS 2 1/2" FACE x 1/4"-NPT, 0-30 PSIG
PRV-5011	1	FISHER	PRESSURE REGULATOR, 627R, 250 PSIG MAWP 1"-NPT, 5-20 PSIG RANGE, 1/4" ORIFICE, NYLON DISC
PRV-5012	1	FISHER	PRESSURE REGULATOR 67CFR-362SC 1/4"-NPT, 0-35 PSIG RANGE, 250 PSIG MAWP
PSHH-5011	1	WINTERS	HIGH PRESSURE SWITCH, 1/2"-NPT, 5-150 PSIG RANGE MODEL: 9WPSL03N2
PSLL-5011	1	WINTERS	LOW PRESSURE SWITCH, 1/2"-NPT, 2-15 PSIG RANGE MODEL: 9WPSL02N2
TE-5011 TW-5011	1	WIKA	DUAL TYPE-K THERMOCOUPLE, 8 1/2" LG STEM, 304SS c/w 1/2"-FNPT x 3/4"-MNPT x 8 1/2" 316 SST THERMOWELL
TCV-5014	1	FISHER	119 CONTROL VALVE, 1"-NPT, 9/16" ORIFICE
XY-5011-12	2	ASCO	2 WAY SOLENOID VALVE, 1"-NPT, 24VDC, 30 PSIG MAWP
XY-5013	1	ASCO	2 WAY SOLENOID VALVE, 1/4"-NPT, 24VDC
FA-5011	1	FLAMCO	FLAME ARRESTOR, RATED FOR 2.5MM, TO FIT 24" FIRETUBE 1"-NPT MAIN @9:00, 1/4"-NPT PILOT @9:00 3/4"-NPT AUX @10:00, (20) 7/8" DIA HOLES ON 27" BCD
BRN-5011		ACL	(2)-2" BURNER NOZZLES w/ PILOT & AIR PLATE c/w 5/16" ORIFICE

VALVE LIST

TAG	QTY.	MAKE	DESCRIPTION
1/2"BA4N1	2	WKM	1/2"-NPT 3000 WOG RP BALL VALVE
1"BA4N1	1	WKM	1"-NPT 3000 WOG RP BALL VALVE
1 1/2"BA4N1	1	WKM	1 1/2"-NPT 3000 WOG RP BALL VALVE

VALVE LIST (SPARTAN SUPPLIED)

TAG	QTY.	MAKE	DESCRIPTION
1/4"BAPF	1	NEO	1/4"-NPT 2500 SERIES BALL VALVE, SS
1/2"BAPF	4	NEO	1/2"-NPT 2500 SERIES BALL VALVE, SS
1"BAPF	3	NEO	1"-NPT 2500 SERIES BALL VALVE, SS
1"YPF	1	ACL	1"-NPT T-STRAINER, SS, MODEL: 1T6YS

SKID & HUTCH DESCRIPTION

TAG	QTY.	DESCRIPTION
HUTCH		2'-0" WIDE x 6'-0" LONG FOAM PANEL
HEIGHT		6'-0"
INSULATION		R12 IN ROOF & WALLS
EXTERIOR/INTERIOR		1 1/2" GALVALUME FOAM PANEL
DOOR	1	5' x 5' FOAM PANEL DOUBLE
VENT	1	9" x 7" ADJUSTABLE LOUVER c/w SCREEN
HARDWARE		CHECK CHAINS & SWEEP, BARREL BOLT, CHAIN BOLT, WEATHER STRIPPING
SHELL INSULATION		1 1/2" INSULATION ON LINE HEATER SHELL NOT COVERED BY HUTCH c/w 0.02" STUCCO EMBOSSED ALUMINUM CLADDING
SKID		7'-2" WIDE x 18'-6" LONG, P.ENG STAMPED
SKID PREP & PAINT		SSPC-SP3, 1 COAT CLOVERDALE PRIMER, 1 COAT CLOVERDALE GREY ENAMEL
PIPE EXTERIOR		SSPC-SP3, 1 COAT CLOVERDALE PRIMER, 1 COAT CLOVERDALE GREY ENAMEL
FIRETUBE & STACK		SSPC-SP3, 1 COAT CLOVERDALE HIGH TEMP FLAT BLACK

AS BUILT

SHIP LOOSE ITEMS

- 1 - TUBES OF CAULKING
- 1 - PARTS MANUAL
- 1 - 24" x 15'-0" EXHAUST STACK & RAIN CAP

NO.	DATE	REVISION	BY	APP
3	18-03-06	AS BUILT		
2	17-07-05	REMOVED SOLENOID ON TCV-5014	KG	JB
1	17-06-14	ADDED I2P TO TEMP CONTROL VALVE	KG	JB
0	17-06-05	ISSUED FOR CONSTRUCTION	KG	JB

CAPE MANUFACTURING LTD.		CAPE	
PO BOX# 216 HALKIRK, AB T0C 1M0		TELEPHONE: (403) 884-2442	
CLIENT: BIRCHILL CANADA LTD. PARTNERSHIP		c/o: OEL PROJECTS LTD.	
LSD: 11-13-43-13 W5M		DATE: 17-04-12	
JOB NO.: CML-170649		SCALE: N.T.S.	
DRAWN BY: KG		CHECKED BY: DH	
SHEET 1 OF 1		DWG NO.: CML-170649PID	
		REV. 3	

72" OD LINE HEATER
72" OD x 24'-0" F/F, 2.5MMBTU
24 PASSES OF 4"-600CL RF