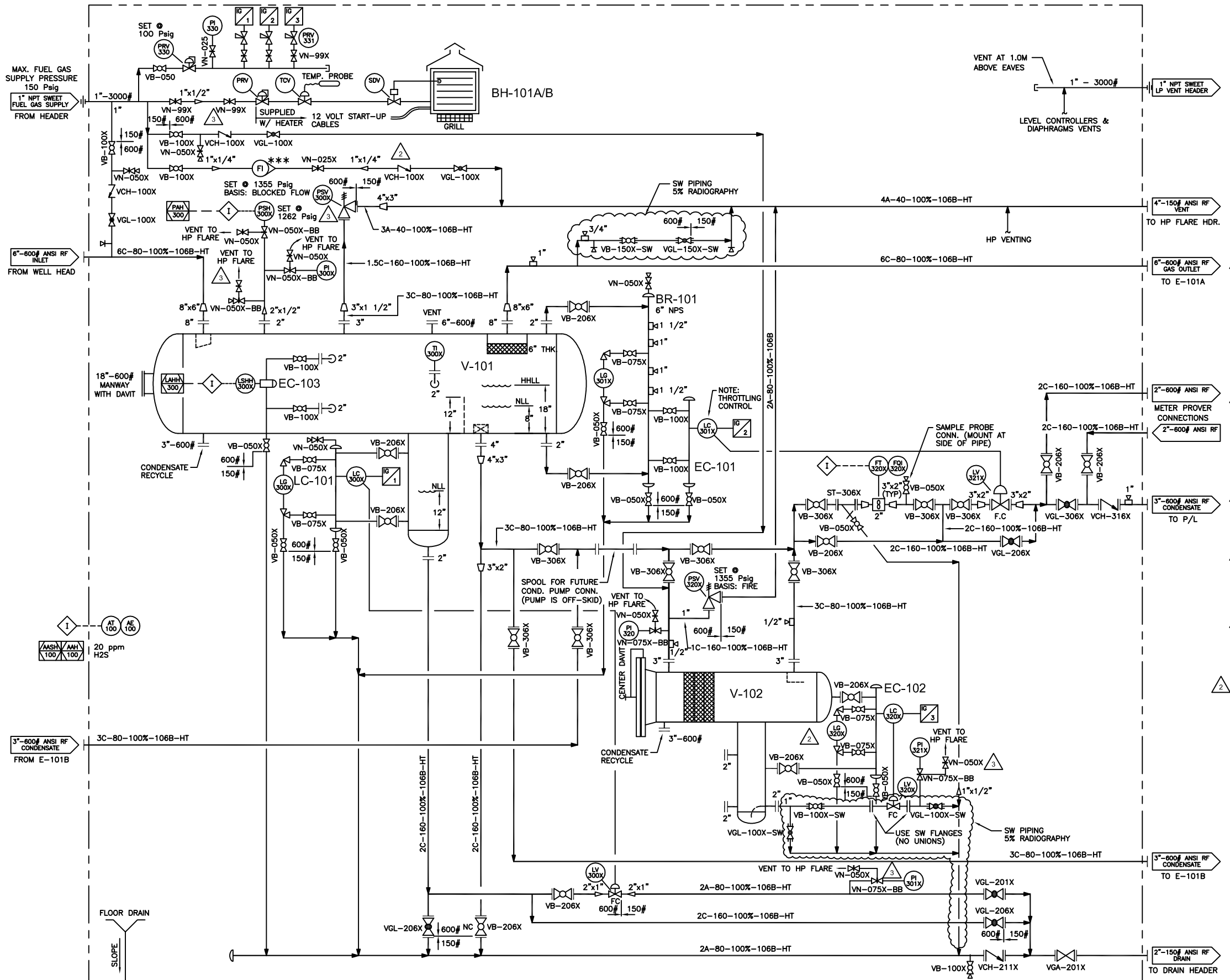

TAG	QTY	BRAND	DESCRIPTION
BH-101A, BH-101B	2	Catadyne	Building Heater, 36,000 BTU/Hr catalytic c/w safety shut down valve, thermostat, regulator, vent hood, grill, & 30 ft. SDV Cables & 12 Volt Start
FT/FQI-320X	1	Halliburton	Turbine Meter, 3/4" x 2" EZ-IN, 600 ANSI RF, c/w MC-II Plus Totallizer (Pulse Output & 4-20 ma) (Nace Process Trim)
LC-300X, LC-320X		Fisher	Level Controller, 2" NPT Model L2, 0-30 psig Snap & Direct Acting signal, 1500 psig MWP (Nace Process Trim / Standard Instrument Gas)
LC-301X	1	Fisher	Level Controller, 2" NPT Model L2, 0-30 psig Throttling & Direct Acting signal, 1500 psig MWP (Nace Process Trim / Standard Instrument Gas)
LG-300X	1	Jerguson	Transparent Sight Glass, Model 15T20 (c/w cocks), 1500 psig MWP (Nace Process Trim)
LG-301X	1	Jerguson	Reflex Sight Glass, Model 38R20 (c/w cocks), 1500 psig MWP (Nace Process Trim)
LG-320X	1	Jerguson	Transparent Sight Glass, Model 15T20 (c/w cocks), 1500 psig MWP(Nace Proc. Trim)
LSHH-300X	1	SDR	Level Switch, Model 1510C-G2A-C-V9ES-NC, 2" NPT, ELECTRIC,(NOTE: CSA CERTIFICATION, & CLASS-I, DIV-I) (Nace Process Trim)
LV-300X, LV-320X		Fisher	Dump Valve, Model D2, 1" NPT LCC/46 FloPro 1/4-1/2 ATD 6 - 30 PSIG Fail Close Signal. (Nace Process Trim / Standard Instrument Gas)
LV-321X	1	Fisher	Pressure Control Valve, Model 667-D Body, 2" 600 ANSI RF x size 45 actuator, 6-30 size signal, 3/8" Trim (Equal % Trim) (Nace Process Trim / Standard Instrument Gas)
PRV-330	1	Fisher	Regulator, 1" NPT Model 627, Steel Body, 100 psig set spring, 1/8" Port, Nylon Trim, (Std Process Trim)
PRV-331	3	Fisher	Regulator, 1/4" NPT Model 67CFR, 35 psig set spring, c/w back mount PI (Standard Instrument Trim)
PI-300/1X, PI-320/1X	4	Wika	Pressure Indicator, 1/2" NPT x 4" liquid filled, dual scale (0-1500 psig), SS case (Nace Process Trim)
PI-330	1	Wika	Pressure Indicator, 1/4" NPT x 2.5" liquid filled, dual scale (0-200 psig) SS case (Nace Process Trim)
PSH-300X	1	CCS Dual-S	Pressure Switch, SDUR service,24 V DC, XP, set @ 1262 psig, Model 6900GZE-22, (minimum SPDT), (NOTE: CSA CERTIFICATION, & CLASS-I, DIV-I)
PSV-300X	1	Farris	Flanged Relief Valve, set @1355 psig, rated for: 25 MM scf/d @ 192 deg. F, 0.65 SG natural gas, Model 38HC13-120/S7, 1.5" 600 ANSI RF Inlet x 3" 150 ANSI RF Outlet, Pilot Operated. (Nace Process Trim)
PSV-320X	1	Farris	Flanged Liquid Relief Valve, set @1355 psig, rated for: @ 192 deg. F, 0.8 SG condensate, 1572 BBL/Day Condensate, Model 38DC13-120/S7, 1" 600 ANSI RF Inlet x 2" 150 ANSI RF Outlet. (Sized For Accumulitive Build-up, Pilot Operated) (Nace Process Trim)
ST-306X	1	Mueller	Y-Strainer, 3" 600 ANSI RF, MODEL-764 (Nace Process Trim)
TI-300X	1	Trend	Temperature Indicator, 1/2" x 3" dual scale (-20 to +120 deg C) c/w 3/4" NPT x 12" Lg SS Thermowell (Nace Process Trim)
VB-050X	11	Nutron	Ball Valve, 1/2" NPT Full Port, 3000 psig WOG, Model T3F05S30SS (Nace Process Trim)
VB-075X	6	Nutron	Ball Valve, 3/4" NPT Regular Port, 3000 psig WOG, Model T3R07S30SS (Nace Process Trim)
VB-100X	8	Nutron	Ball Valve, 1" NPT Regular Port, 3000 psig WOG, Model T3R10S30SS (Nace Process Trim)
VB-100X-SW	1	Nutron	Socket Welded Ball Valve, 1" Reg. Port, A-105N, 316SS Ball, Nylon Seat (Nace Process Trim)
VB-150X-SW	1	Nutron	Socket Weld Ball Valve, 1 1/2" NPT Full Port, A105N, 316 SS Ball, Nylon Seats. (Nace Process Trim)
VB-200X	1	Nutron	Ball Valve, 2" NPT Regular Port, 3000 psig WOG (Nace Process Trim)
VB-206X	11	Nutron	Ball Valve, 600 ANSI RF Regular Port, NPS 2", A 216 WCB, FS, 316 SS Ball, Nylon Seats, Lever OP, Model-T3R20R06SS (Nace Process Trim)
VB-306X	9	Nutron	Ball Valve, 600 ANSI RF Regular Port, NPS 3", A 216 WCB, FS, 316 SS Ball, Nylon Seats, Lever OP, Model-T3R30R06SS (Nace Process Trim)
VCH-100X	3	DSI	Check Valve, 1" NPT, class 800, Model 4321, A 105N, horizontal lift, TR10, BC, (Nace Process Trim)
VCH-211X	1	Wheatley	Check Valve, 2" 150 ANSI, Model 910-025027-822, A 216 WCB, Swing Check, Viton Seat, BC. (Nace Process Trim)
VCH-316X	1	Wheatley	Check Valve, 3" 600 ANSI, Model 910-035144-822, A 216 WCB, Swing Check, Viton Seat, BC. (Nace Process Trim)
VGA-201X	1	DSI	Gate Valve, 150 ANSI RF, NPS 2", A 216 WCB, TR12, DS&Y, BB (Nace Process Trim)
VGL-100X	4	DSI	Globe Valve, 1" NPT, class 800, A 105N, TR12, DS&Y, BB (Nace Process Trim)
VGL-100X-SW	1	DSI	SW Globe Valve, NPS 1" class 800, A 105N, TR12, DS&Y BB (Nace Process Trim)
VGL-150X-SW	1	DSI	SW Globe Valve, NPS 1 1/2" class 800, A 105N, TR12, DS&Y BB (Nace Process Trim)
VGL-201X	1	DSI	Globe Valve, 150 ANSI RF, NPS 2", A 216 WCB, TR12, DS&Y, BB (Nace Process Trim)
VGL-206X	3	DSI	Globe Valve, 600 ANSI RF, NPS 2", A 216 WCB, TR12, DS&Y, BB (Nace Process Trim)
VGL-306X	1	DSI	Globe Valve, 600 ANSI RF, NPS 3", A 216 WCB, TR12, DS&Y, BB (Nace Process Trim)
VN-025	2	Marsh	Needle Valve, 1/4" NPT Model 1332 M X F (sour Process Trim / Standard Instrument Gas)
VN-050X	10	Marsh	Needle Valve, 1/2" NPT Model 1334 M X F (Nace Process Trim)
VN-050X-BB	3	Marsh	Multiport Needle Valve, 1/2" M x (3) 1/2" FNPT (Nace Process Trim)
VN-075X-BB	3	Marsh	Multiport Needle Valve, 3/4" M x (3) 1/2" FNPT (Nace Process Trim)
VN-99X	7	Century	Sour Needle Valve, 1/4" NPT CS body F X F (Standard Process Trim / Standard Instrument Gas)
FI	1		Customer Supplied Flow Meter, Set @ 2.26 Cu.m/Hr

GENERAL NOTES:
1. No of Units req'd: ONE (1)
2. Materials shown for one Unit only
3. Welded piping to be: See Line Specs. on P&ID
4. All Threaded Piping to be: See Table below
5. All Welded Fittings to be: See Line Specs. on P&ID
6. All Forged Steel fittings to be: See Table below

*

	SWEET		SOUR	
SPEC.	F.S. FITTINGS	NPT PIPING	F.S. FITTINGS	NPT PIPING
A:	SA-105N, 3000#	SA-106B, SCH 80	SA-105N, 3000# ** SA-105N, 6000#	SA-106B, SCH 80 ** SA-106B, SCH 160
C:			SA-105N, 6000#	SA-106B, SCH 160

* Use SA-350-LF2 for Low Temp F.S. Fittings & SA-333 for Low Temp. NPT Piping
** EXCEPT 1/2"

7/8. Unit to be designed / hydrotested as follows:

PIPING

SPEC.	MAWP	HYDROTEST @ ROOM TEMP.	STRESS RELIEF
A:	262 PSIG @ 192 °F	393 PSIG	YES
C:	1355 PSIG @ 192 °F	2032 PSIG	YES

VESSEL

TAG #	MAWP	HYDROTEST @ ROOM TEMP.	STRESS RELIEF
V-101	1355 PSIG @ 192 °F	2032 PSIG	YES
V-102	1355 PSIG @ 192 °F	2032 PSIG	YES
BR-101	1355 PSIG @ 192 °F	2032 PSIG	YES
EC-101	1355 PSIG @ 192 °F	2032 PSIG	YES
EC-102	1355 PSIG @ 192 °F	2032 PSIG	YES
EC-103	1355 PSIG @ 192 °F	2032 PSIG	YES
LC-101	1355 PSIG @ 192 °F	2032 PSIG	YES

9. } REFER TO DWG L-02-3692-1973 FOR NOTES # 9 TO 18
18.
19. All bleeding type of instruments with bleed ports (excluding regulator bonnets) to be vented to LP Vent Header.
20. Tubing Details:

SERVICE	SIZE	TUBE	FITTINGS	FERRULES
ALL TUBING	3/8"	SS	SS	SS

OPSCO STANDARD WELDED PIPELINE DESIGNATION SYSTEM

EXAMPLE: 6B - 40 - 10% - 106B - HT - (OPTIONAL: LEAVE OUT UNLESS NEEDED)
- 6B: LINE SIZE (NPS)
- 40: ANSI CLASS (A=150, B=300, C=600, D=900, E=1500, F=2500)
- 10%: X-RAY
- 106B: PIPE SCHEDULE
- HT: MATERIAL SPEC.
- STRESS REL.
- OTHER NDT

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No.	DATE	REVISIONS	BY	APP
0	Mar 22, 2002	ISSUED FOR APPROVAL	OP	
1	April 16, 2002	ISSUED FOR CONSTRUCTION	OP	
2	May 08, 2002	HP FLARE PURGE LINE ADDED, INSULATION DELETED & LG-320X RELOCATED	OP	
3	June 20, 2002	AS BUILT	OP	

ENGINEERS RECORD		DATE
DRAWN BY	O'Neill Pereira	Mar 12, 2002
CHECKED BY		
APPD. BY		
ISSUED TO SHOP		

CLIENT	PAN CANADIAN ENERGY C/O DPH ENGINEERING
PROJECT	42" OD x 15'-0" S/S INLET SEPARATOR & CONDENSATE CONDITIONER PACKAGE (O-103)
TITLE	FLOW DIAGRAM
Scale	NTS
JOB No.	JM-02-3692
DWG. No.	F-02-3692-964
REV.	3