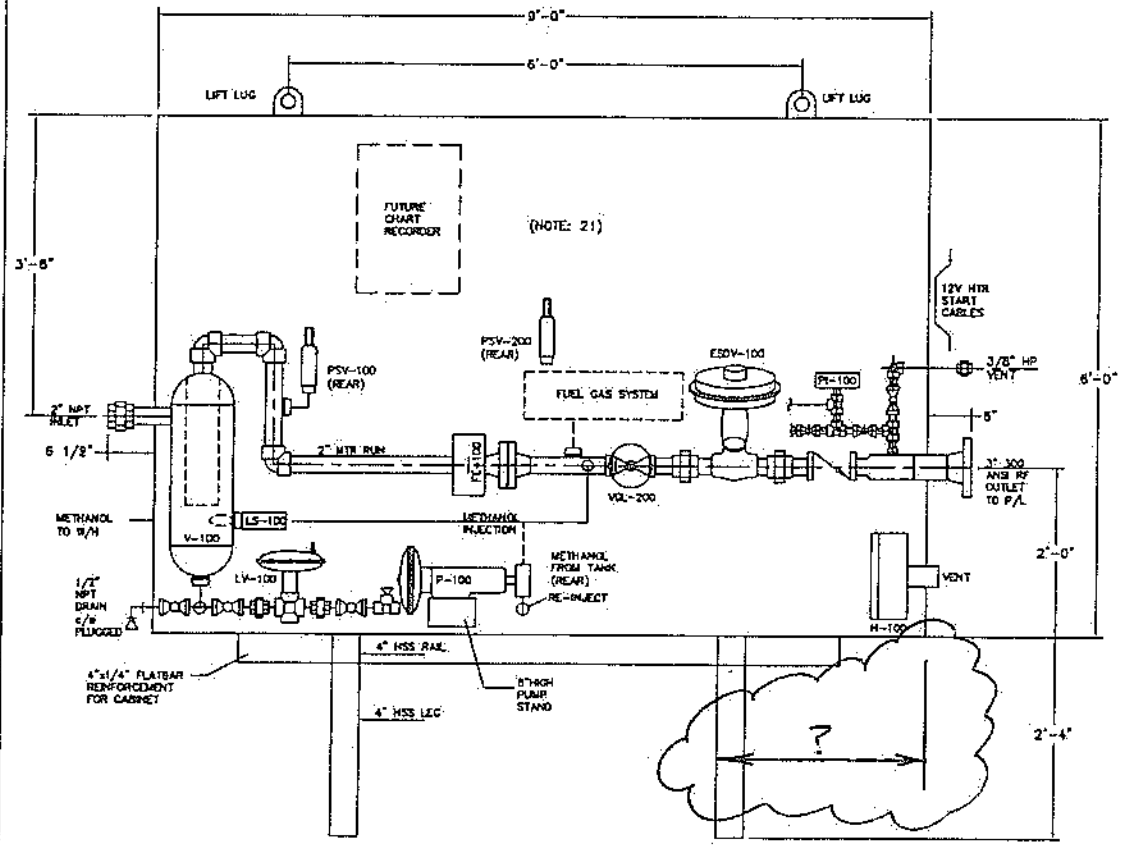
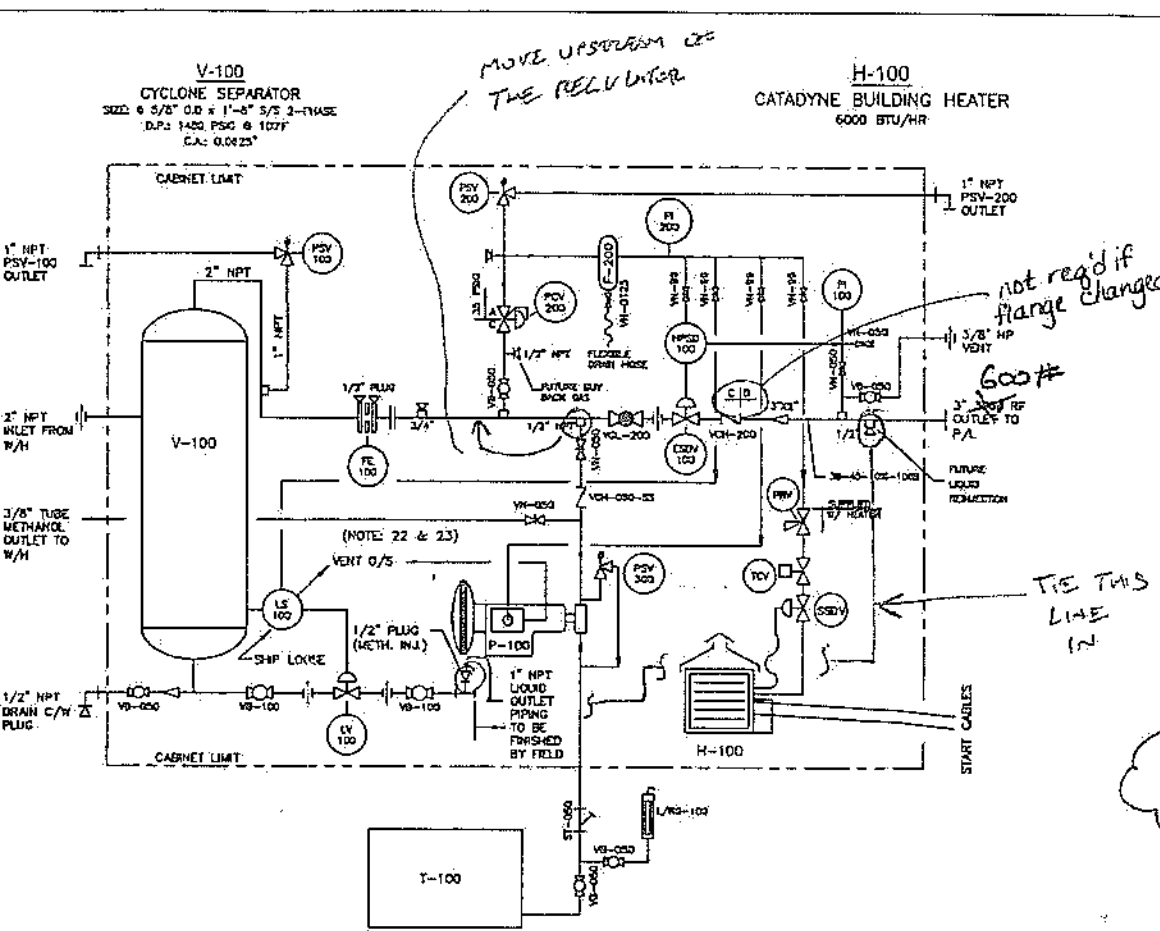


PLAN VIEW



ELEVATION VIEW



FLOW-DIAGRAM

VENDOR DRAWING REVIEW

1. Review of vendor drawing for compliance with ASME B31.3 and applicable codes.

2. Review of drawing for completeness and clarity.

3. Review of drawing for proper identification of components.

4. Review of drawing for proper identification of materials.

5. Review of drawing for proper identification of dimensions.

6. Review of drawing for proper identification of tolerances.

7. Review of drawing for proper identification of surface finish.

8. Review of drawing for proper identification of welding symbols.

9. Review of drawing for proper identification of assembly instructions.

10. Review of drawing for proper identification of safety features.

11. Review of drawing for proper identification of environmental considerations.

12. Review of drawing for proper identification of special requirements.

13. Review of drawing for proper identification of inspection and testing requirements.

14. Review of drawing for proper identification of record keeping requirements.

15. Review of drawing for proper identification of other applicable requirements.

DATE: Oct 14/03

PSV certificates req'd.
vessel drwg req'd.

VENDOR CONTROL
DETAILS
OCT - 6 2003
DPH ENGINEERING INC.

TAG	QTY	MARK	DESCRIPTION
ESDV-100	1		2" NPT Model 2200 SMT-PO motor valve, 1" port, SS
F-200	1		Filter, 1/4" NPT Model G5002H-GAS-BY C/W 100-17-07 manifold
FE-100	1		JUNIOR type Meter Run, NPS 2" Sch. 40, 500 RPS, built to AGA 3C spec, beta 0.7, c/w seal ring & 1 outlet pipe (TBA Bars), 100% radiography, 1/2", 1/2" and 3/4" 3000# FS connections, straightening vanes
			<i>good for 300#</i>
HPSD-100	1		High pressure pot model 40236, set @ 4930 Kpa rising
H-100	1		Building Heater, 6000 BTU/hr catalytic c/w safety shut down valve, regulator, thermostat, vent hood and 12VDC starter
L/RG-100	1		Level/Rate Gauge, Model P5700-52-48-CTU (No Test Valve)
LS-100	1		Level Controller, 2" NPT Model 13308-G2A-C-30-PS, 0-30 psig, SS, 1500 PSI MPD
LV-100	1		Duma Valve, 1" NPT Model 1400-SMT-PS-1/8, 1/8" port, Full Close Signal, Corbide Trim
			<i>600#</i>
P-100	1		Injection Pump, Model 5113 LP, 3/8" plunger, 1500 psig, max discharge, 16.0 Gpd
PSV-200	1		Regulator, 1/4" NPT Model 1301F, Brass Body, set at 35 psig, c/w tapped body
PI-100	1		Pressure Indicator, 1/2" NPT x 4" dia liquid filled, dual scale (0-1500 psig)
PI-200	1		Pressure Indicator, 1/4" NPT x 2.5" liquid filled, dual scale (0-100 psig) SS case, back mounted
PSV-100	1		Threaded Relief Valve, 1" NPT x 1" NPT Model 9100-MCII, Set @ 1450 (Max 1500) psig, 1" D DRPFC
PSV-200	1		Threaded Relief Valve, 1/2" NPT x 1" NPT Model 9100-MCII, Set @ 45 psig, 1" D DRPFC
PSV-300	1		Methanol Relief Valve, 1/4" NPT, set @ 1440 psig, Model SS-4R34S EP O-ring, methanol service
ST-050	1		Strainer, 1/2" NPT O Body
T-100	1		Clammer Tank, 300 gallon, round c/w FB & Vent connections
VB-050	5		Ball Valve, 1/2" NPT Regulator Port, 2000 psig WOG
VH-100	2		Check Valve, 1" NPT, 1500# WOG
VH-050-SS	1		Check Valve, 1/2" NPT, SS Body, SS-BCP-1
VZ-200	1		Globe Valve, 1/2" NPT, class B20
W-0125	1		Handed Valve, 1/8" NPT Brass, 200 psig Model 830-A32
WV-050	4		Accu Valve, 1/2" NPT, Model 1776C-44Q 1377
WV-99	4		Mini Valve, Model MS90C-2 F X F

-TOTAL PACKAGE WEIGHT-

DPH JOB NO. 6198

GENERAL NOTES:

- No of Units req'd: SEVENTEEN (17)
 - Materials shown for one Unit only
 - Welded piping to be per See Line Specs. on P&ID
 - All Threaded Piping to be up to & including 2" SA-1008 Sch.40
 - All welded flanges to be per See Line Specs. on P&ID
 - All Flanged Steel Flanges to be per See Table below
 - Unit to be designed / hydrotested as follows:
- | CLASS | SPEC. | SERVICE | DESIGN | NPT PIPING | F.S. FITTINGS | STRESS RELIEF | HYDROTEST @ ROOM TEMP. |
|-------|-------|--------------------|----------------|----------------|----------------|----------------|------------------------|
| A | SHEET | 100 PSIG @ 100° F | SEE LINE SPEC. | SA-1008, 3000# | SEE LINE SPEC. | SEE LINE SPEC. | 150 PSIG |
| B | SHEET | 740 PSIG @ 100° F | SEE LINE SPEC. | SA-1008, 3000# | SEE LINE SPEC. | SEE LINE SPEC. | 1110 PSIG |
| C | SHEET | 1400 PSIG @ 100° F | SEE LINE SPEC. | SA-1008, 3000# | SEE LINE SPEC. | SEE LINE SPEC. | 2220 PSIG |
- Use SA-300-472 for Low Temp. F.S. Fittings & SA-333 for Low Temp. NPT Piping
- | TAG # | MARK | HYDROTEST @ ROOM TEMP. | STRESS RELIEF |
|-------|--------------------|------------------------|---------------|
| V-100 | 1400 PSIG @ 100° F | 2220 PSIG | NO |
- Unit to be commercially manufactured to SSPC-SP-8 and shop-primed with DPE (1) coat Lead Oxide
 - Finish Paint ONE(1) coat Industrial Enamel Temp c/w flat black waxed & POR, Color Bands
 - Interior Insulation: Doors, Walls, & Roof
 - Doors, Walls, & Roof: 1" thick spray-on urethane c/w fire-retardant coating
 - Floor: Removable 1" thick aluminum (for floor drainage access)
 - Radiography on piping meeting to be per See Line Specs on P&ID
 - DPSCO standard pipe supports, as required.
 - Unless specified otherwise, all projections beyond building wall to be 6"
 - Dimensions may change to reflect customer requests, layout changes, accessibility and non-availability of OEM supplied components.
 - Show Assembly Details: See Line Specs on P&ID
 - SP electrical hook-up of Catalytic Heaters: YES
 - Other Electrical Work: NO
 - All bleeding type of instruments with bleed ports (excluding most diaphragms, but including PSV-200 bleed & Purge Diaphragm) to be worked to cabinet edge
 - Tubing Details:
- | SERVICE | PIPE | SIZE | TUBE | WT | FITTINGS | FEEDBACK |
|-----------------|---------|------|------|--------|----------|-----------------------|
| UNDER 1400 PSIG | PIPE | 3/8" | SS | 0.035" | CPCS | ADVANCED BACK (SL/25) |
| | PROCESS | 1/2" | SS | 0.049" | | |
- Cabinet: Blended 18 gauge CS c/w doors, 1/4" bent handle Inlet/Outlet ports
 - Do not coat around small tubing vents.
 - Minimize tubing vent external projection but keep downward bend
 - Attach Bench Test Certificate to All PSVs

ELECTRICAL: HOOKUP OF HEATER CABLES ONLY (CLASS 1 DIV 2)

DPH P.O. # 6198-D001

OPSCO STANDARD WELDED PIPELINE DESIGNATION SYSTEM

OPTIONAL LEAVE OUT UNLESS NOTED

EXAMPLE: 68 - 00 - 100 - 100S - HT - OTHER NOT

LINE SIZE (NPS) - 68 - 00 - 100 - 100S - HT - OTHER NOT

PIPE CLASS - 68 - 00 - 100 - 100S - HT - OTHER NOT

WELD TYPE - 68 - 00 - 100 - 100S - HT - OTHER NOT

STRESS REL. - 68 - 00 - 100 - 100S - HT - OTHER NOT

MATERIAL SPEC. - 68 - 00 - 100 - 100S - HT - OTHER NOT

PIPE SCHEDULE - 68 - 00 - 100 - 100S - HT - OTHER NOT

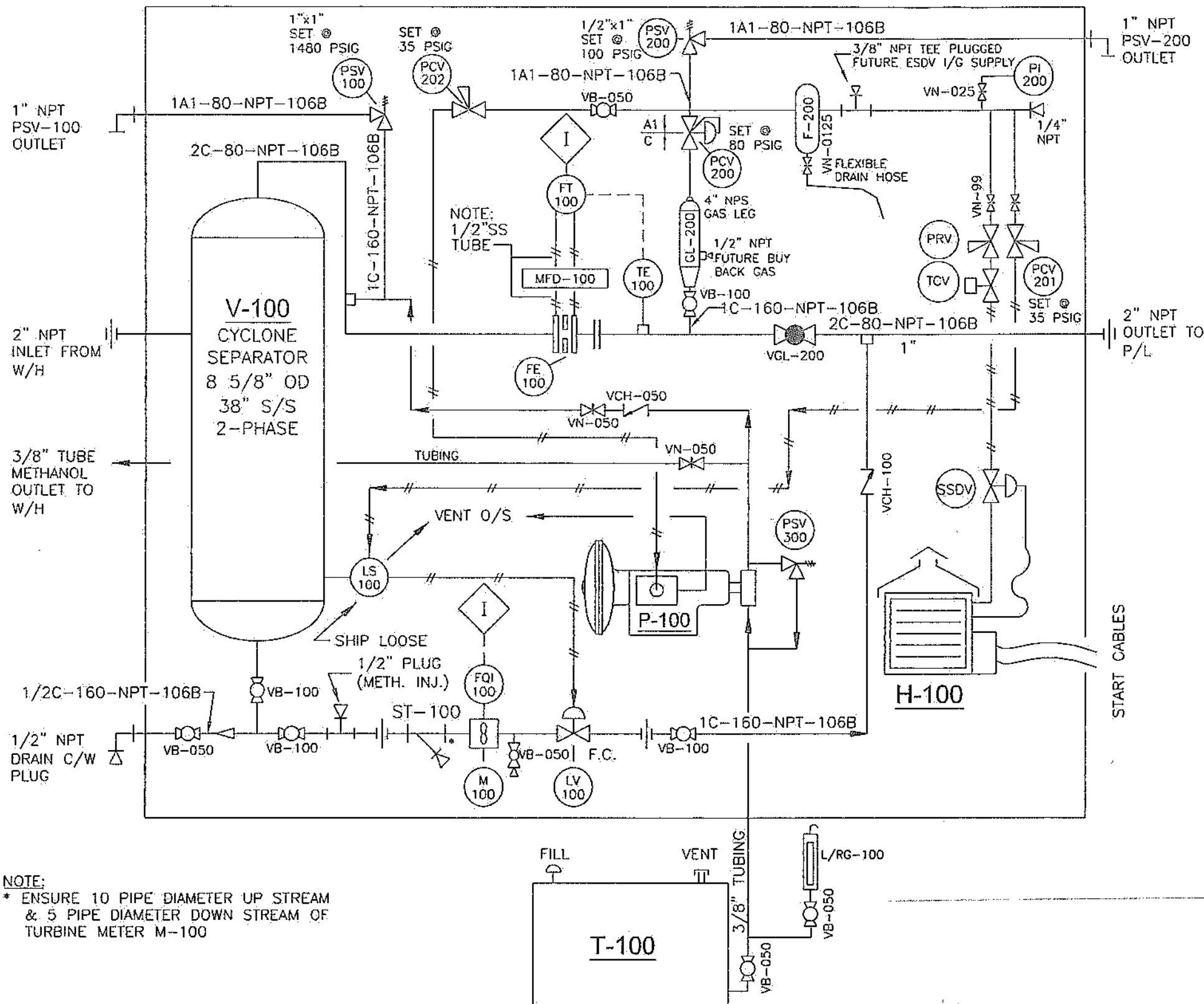
THIS DRAWING IS THE PROPERTY OF OPSCO INDUSTRIES LTD. AND LOANED TO THE RECIPIENT FOR HIS CONFIDENTIAL USE ONLY. IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE RECIPIENT PROMISES AND AGREES THAT IT SHALL NOT BE USED IN ANY MANNER DETRIMENTAL TO THE INTEREST OF OPSCO INDUSTRIES LTD. THAT IT SHALL BE RETURNED UPON REQUEST, AND THAT IT SHALL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT INTENDED WITHOUT THE WRITTEN PERMISSION OF OPSCO INDUSTRIES LTD.

No.	DATE	REVISIONS	BY	APP	No.	DATE	REVISIONS	BY	APP
1	02/03	ISSUED FOR APPROVAL		T.V.					

ENGINEERS RECORD			DATE
DRAWN BY	TOAH VAN		02/02/2003
CHECKED BY			
APPROVED BY			
ISSUED TO SHOP			



CLIENT	ENCANA CORPORATION
PROJECT	C/O DPH ENGINEERING
TITLE	METER UNIT TYPE 'A' - MODIFIED # 1 (A-41)
DATE	02/02/2003
REV.	0



TAG	QTY	BRAND	DESCRIPTION
F-200	1	Balston	Filter, 1/4" NPT Model C28002N-0A2-DX c/w 100-12-DX element
FE-100	1	Northstar	JUNIOR Type Meter Run, NPS 2" Sch. 80, 600 MFSI, built to AGA-3C specs, beta 0.7, c/w seal ring & 1 orifice plate (1.375" bore), 10% radiography, 1/2", 1" and 3/4" 3000# FS side connections, straightening vanes
FT/TE-100	1	TBA	3-in-1 Flow/Pressure/Temperature Transmitter, (Supplied & installed by others in the field)
FQI-100	1	Palatka	Informar Plus, Totalizer (Supplied & installed by others in the field)
H-100	1	Caladyne	Building Heater, 5,000 BTU/hr (12" x 24") vertically mounted, longside brackets catalytic c/w safety shut down valve, & 912V regulator, thermostat, & 12VDC start, 12" Vent Hood
L/RG-100	1	Plainsman	Level / Rate Gauge Model P5700-52-48-CTM
LS-100	1	SOR	Level Controller, 2" NPT Model 1530B-G2A-C-J0-PS, 0-30 psig, Snap output, 1500 psig MWP.
LV-100	1	Fisher	Dump Valve Model D2 c/w 1/2" Port, 6-30# signal, Fail Close.
M-100	1	EOD/Simark	7/8" X 1" NPT Liquid Turbine Meter c/w Magnetic Pick Up.
MFD-100	1	Agco	5-Valve CS Manifold, Model M5AVDC-4
P-100	1	Texsteam	Injection Pump, Model 5113LP, 3/8" plunger, 1500 psig max discharge, 16.8 Gpd
PCV-200	3	Fisher	Regulator, 1/4" NPT Model 1301F, Brass Body, set @ 80 psig, Tapped bonnet
PCV-201	1	Fisher	1/4" NPT 67CFR Regulator set @ 35 psig, Tapped bonnet
PCV-202	1	Fisher	1/4" NPT 67CFR Regulator set @ 35 psig, Tapped bonnet
PI-200	1	Wika	Pressure Indicator, 1/4" NPT x 2.5" liquid filled, dual scale (0-100 psig) SS, back-mount
PSV-100	1	Mercor	Threaded Relief Valve, 1" NPT x 1" NPT Model 9100-WCB, set @ 1480 (Max 1500) psig, 'D' ORIFICE, rated for : 4.33 MM scf/d @ 70' F, 0.65 SG natural gas
PSV-200	1	Mercor	Threaded Relief Valve, 1/2" NPT x 1" NPT Model 9100-WCB, set @ 100 psig, 'D' ORIFICE, rated for : 0.32 MM scf/d @ 70' F, 0.65 SG natural gas
PSV-300	1	Swagelok	Methanol Relief Valve 1/4" MXF NPT Model SS-4R3AS-EP, set @ 1440 psig (Standard Process Trim)
ST-100	1	Mueller	1" NPT Y STRAINER, MWP 1500 psig, Model 561
T-100	1	Clemmer	Steel Tank, 300 gallon, c/w Fill & Vent connections 1/2" NPT outlet
VB-050	5	WKM	Ball Valve, 1/2" NPT Regular Port, 3000# psig WOG
VB-100	4	WKM	Ball Valve, 1" NPT Regular Port, 3000# psig WOG (Standard Process Trim)
VCH-050	1	Nupro	Check Valve, 1/2" NPT, SS Body, SS-8CP2-1
VCH-100	1	OMB	1" NPT, Piston Check Valve, class 800
VGL-200	1	Navco	Globe valve, 2" NPT, class 800
VN-0125	1	Zimco	Needle Valve, 1/8" NPT M&F Brass 200 psi, Model 850-A
VN-025	1	Agco	Needle Valve, 1/4" NPT, Model H7VIC-2 FXF
VN-050	2	Agco	Needle Valve, 1/2" NPT, Model H7VIC-440 MXF
VN-99	2	Agco	Mini Valve, Model H5RDC -2 F X F

GENERAL NOTES:

- No. of Units req'd: TEN (10)
- Materials shown for one Unit only
- Welded piping to be: See Line Specs, on P&ID
- All Threaded Piping to be: See Table below
- All Welded Fittings to be: See Line Specs, on P&ID
- All Forged Steel fittings to be: See Table below
- Unit to be designed / hydrotested as follows:

PIPING AS PER B31.3, CODE YEAR: 2004

SPEC / TAG #	SERVICE	DESIGN	NPT PIPING	F.S. FITTINGS	STRESS RELIEF	PRESSURE TEST @ ROOM TEMP.	C.A.
A1	SWEET	100 PSIG @ 100' F	SEE LINE SPEC.	SA-105N, 3000#	SEE LINE SPEC.	140 PSIG (AIRTEST)	0.0825"
C	SWEET	1480 PSIG @ 100' F	SEE LINE SPEC.	SA-105N, 3000#	SEE LINE SPEC.	2200 PSIG (HYDROTEST)	0.0625"
GL-200	SWEET	1480 PSIG @ 100' F	SEE LINE SPEC.	SA-105N, 3000#	SEE LINE SPEC.	2200 PSIG (HYDROTEST)	0.0825"

VESSEL AS PER ASME VIII DIV. 1, CODE YEAR: 2004

TAG #	MWP	HYDROTEST @ ROOM TEMP.	STRESS RELIEF	C.A.
V-100	1480 PSIG @ 100' F	2220 PSIG	NO	0.0625"

8. All bleeding type of instruments with bleed ports (including diaphragms, & manifold bleed & Pump Diaphragm) to be vented to stud-edge.

9. Tubing Details:

SERVICE	SIZE	TUBE	WT.	FITTINGS	FERRULES
INSTRUMENT	3/8"		0.035"	CPCS	ADVANCED BACK (CS/SS)
PROCESS	1/2"	SS	0.049"		

10. Total piping volume is < 0.5 cu.m.

NOTE:
* ENSURE 10 PIPE DIAMETER UP STREAM & 5 PIPE DIAMETER DOWN STREAM OF TURBINE METER M-100

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ELECTRICAL: HOOKUP OF HEATER CABLES ONLY (CLASS 1 DIV.2)

ATTACH BENCH TEST CERTIFICATE TO ALL PSVS

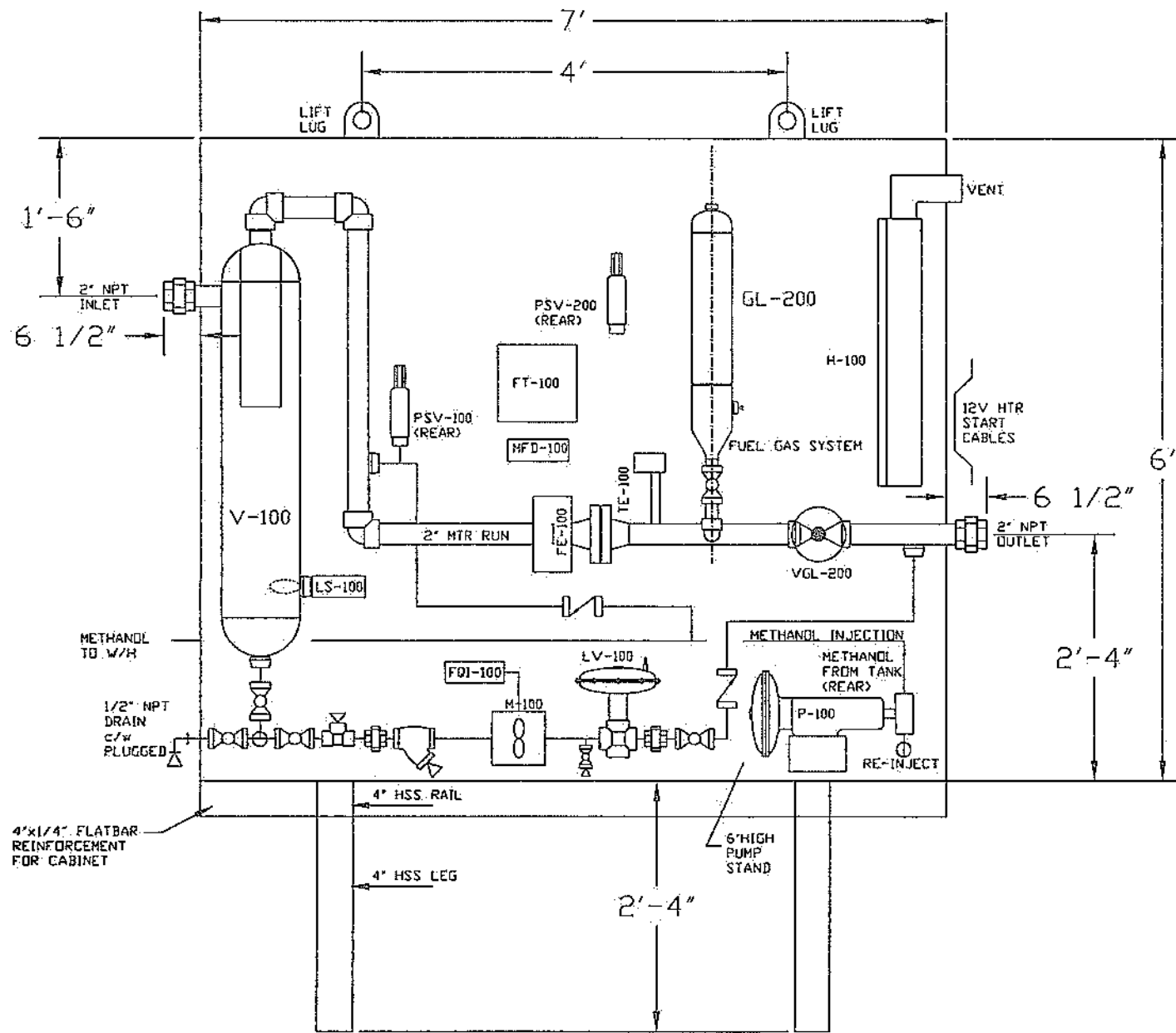
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2	03/01/06	AS BUILT	C.T.	APPD. BY	



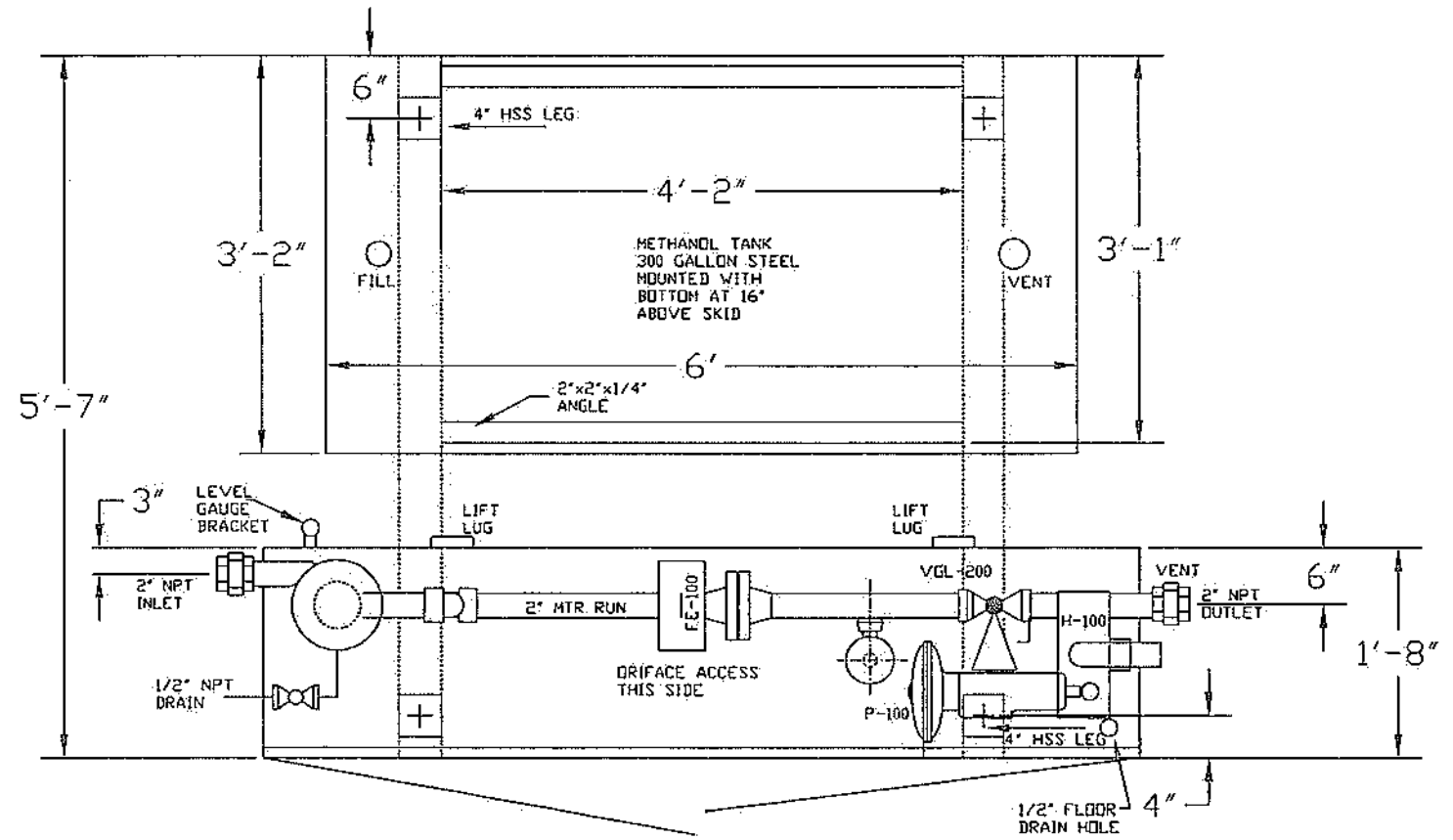
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PROJECT	METER UNIT TYPE "A" M1		
TITLE	FLOW DIAGRAM		
SCALE	JOB No.	DWG. No.	REV.
NTS	JM-05-4440	F-05-4440-1243	2

P.O. # 8215-D001

3/1/2006 11:40:10 AM chandra, 1:1



ELEVATION VIEW



PLAN VIEW

(DRAIN SYSTEM BELOW METER RUN)

NOTES:

- DO NOT CAULK AROUND SMALL TUBING VENTS.
- MINIMIZE TUBING VENT EXTERNAL PROJECTION BUT KEEP DOWNWARD BEND

INTERIOR INSULATION:

DOORS, WALLS & ROOF: 1" THICK SPRAY-ON URETHANE C/W FIRE-RETARDANT COATING

FLOOR: REMOVABLE 1" THICK STYROFOAM (FOR FLOOR DRAINAGE ACCESS)

CABINET: WELDED 14 GAUGE CS C/W DOORS, 1/4 TURN HANDLE INLET/OUTLET VENTS

SANDBLAST: SSPC-6
 PRIME: 1 COAT LEAD OXIDE
 PAINT: 1 COAT INDUSTRIAL ENAMEL TAUPE C/W FLAT BLACK VESSEL & PCR COLOR BANDS

QTY.: 10

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3/12/2006 11:48:19 AM chandra.1117.9250

No.	DATE	REVISIONS	BY	ENGINEERS RECORD	DATE
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1	11/10/05	ISSUED FOR CONSTRUCTION	C.T.	CHECKED BY	
2	03/01/06	AS BUILT	C.T.	APPD. BY	

ENSIGN
 Opsco Manufacturing

CLIENT		ENCANA CORPORATION C/O DPH ENGINEERING	
PROJECT		METER UNIT TYPE "A" M1	
TITLE		LAYOUT	
SCALE	JOB No.	DWG. No.	REV.
NTS	JM-05-4440	L-05-4440-2302	2

P.O. # 8215-0001

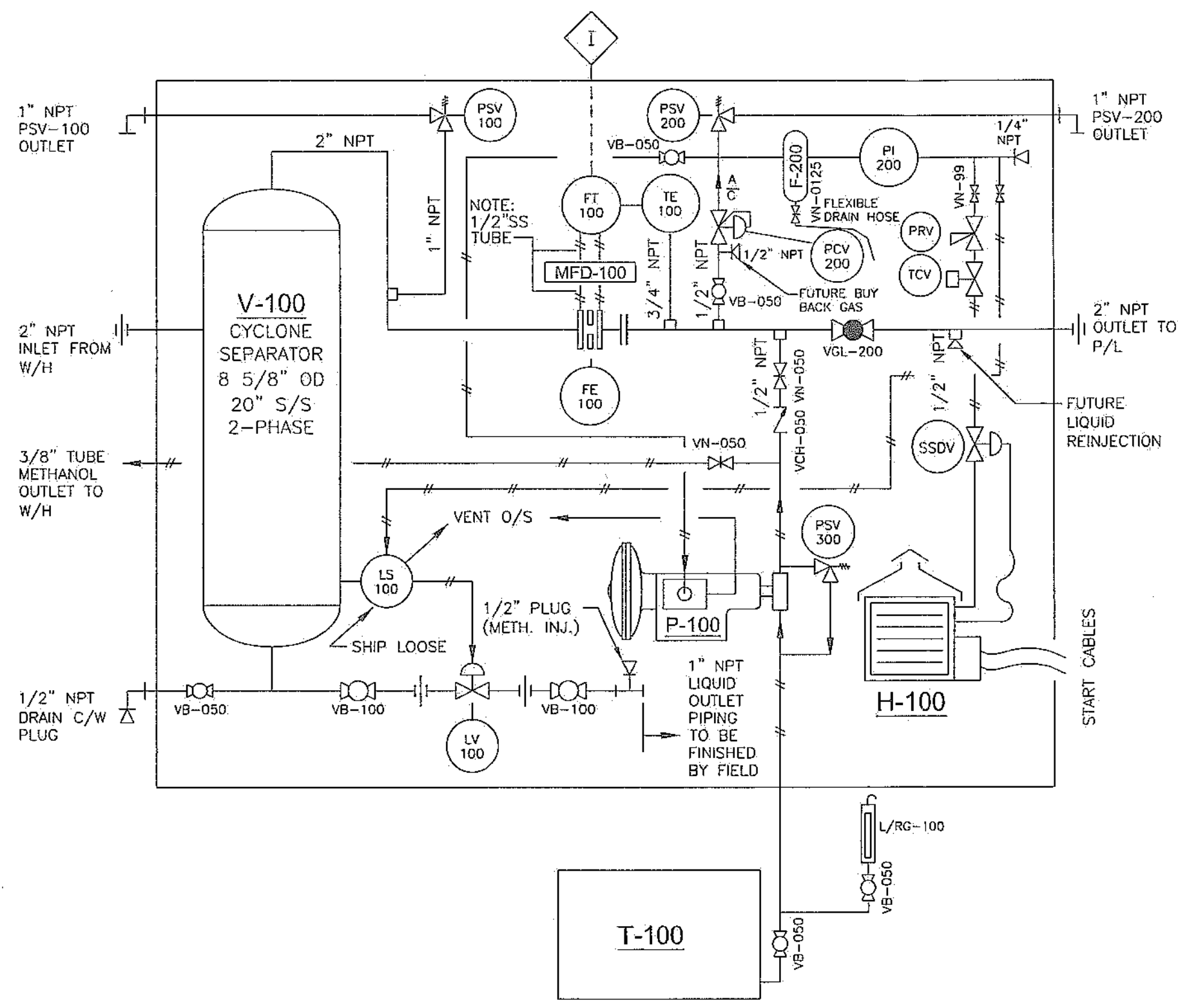
TAG	QTY	BRAND	DESCRIPTION
F-200	1	Balston	Filter, 1/4" NPT Model: C28002N-0A2-DX c/w 100-12-DX element
FE-100	1	Northstar (Comco)	JUNIOR Type Meter Run, NPS 2" Sch. 80, 600 ANSI, built to ACA 3C specs, beta 0.7, c/w seal ring & 1 orifice plate (1.375" bore), 10% radiography, 1/2", 1/2" and 3/4" 3000# FS side connections, straightening vanes
FT/TE-100	1	Rosemount	3-in-1 Flow/Pressure/Temperature Transmitter, model 3095FB30ABA13A4010C4DF, c/w RTD and SS Thermowell 3/4" NPT x 1.5" long, and bracket, CSA & Y2K compliant 0-830" W.C. & Process Adapters (Standard Process Trim)
H-100	1	Calodyns	Building Heater, 6,000 BTU/hr (12" x 12") catalytic c/w safety shut-down valve, & regulator, Thermostat, Vent hood & 12VDC start
L/RG-100	1	Renco	Level / Rate Gauge Model 5700.
LS-100	1	SOR	Level Controller, 2" NPT Model 1530B-G2A-C-JO-PS, 0-30 psig, Snap output, 1500 psig MRP.
LV-100	1	Kimray	Dump Valve Model 1400-SMT-PO-1/B c/w Corbide Trim, 1/8" Port, 5-30# signal
MFD-100	1	Agco	5-Valve CS Manifold, Model M6AVDC-4.
P-100	1	Texsteam	Injection Pump, Model 5113LP, 3/8" plunger, 1500 psig max discharge, 16.8 Gpd
PCV-200	1	Fisher	Regulator, 1/4" NPT Model 1301F, Brass Body, set @ 35 psig, Tapped bonnet
PI-200	1	Wika	Pressure Indicator, 1/4" NPT x 2.5" liquid filled, dual scale (0-100 psig) SS case, back-mount
PSV-100	1	Mercer	Threaded Relief Valve, 1" NPT x 1" NPT Model 9100-WCB, set @ 1480 psig.
PSV-200	1	Mercer	Threaded Relief Valve, 1/2" NPT x 1" NPT Model 9100-WCB, set @ 45 psig. (Standard Process Trim)
PSV-300	1	Nupro	Methanol Relief Valve 1/4" MKF NPT Model SS-4R3AS-EP set @ 1440 psig (Standard Process Trim)
T-100	1	Clemmer	Steel Tank, 300 gallon, c/w Fill & Vent connections 1/2" NPT outlet
VB-050	5	WKM	Ball Valve, 1/2" NPT Regulator Port, 2000 psig WOG
VB-100	2	WKM	Ball Valve, 1" NPT Regulator Port, 1500 psig WOG (Standard Process Trim)
VCH-050	1	Nupro	Check Valve, 1/2" NPT, SS Body, SS-8CP2-1
VGL-200	1	OMB	Globe valve, 2" NPT, class 800.
VN-0125	1	Zimco	Needle Valve, 1/8" NPT Mx F Brass 200 psi, Model 850-A
VN-050	2	Agco	Needle Valve, 1/2" NPT, Model H7VC-440 MKF
VN-99	2	Agco	Mini Valve, Model H5R0C -2 F X F

GENERAL NOTES:

- No. of Units req'd: TWENTY (20)
- Materials shown for one Unit only
- Welded piping to be: SA-106B Sch.80 except 3" only at Sch.40
- All Threaded Piping to be: Up to & including 2" SA-106B Sch.80
- All Welded Fittings to be: SA-105N, SA-234-WPB
- All Forged Steel fittings to be: SA-105N, 3000#, Railway Unions
- Unit to be designed / hydrotested as follows:

SPEC.	DESIGN	TEST @	ROOM TEMP.	STRESS RELIEF
PIPING A:	100 PSIG @ 100 °F	AIR @ 110 PSIG	N/A	
PIPING C:	1480 PSIG @ 100 °F	WATER @ 2220 PSIG	N/A	
VESSEL V-100	1480 PSIG @ 100 °F	WATER @ 2220 PSIG	N/A	
- All bleeding type of instruments with bleed ports (excluding most diaphragms, but including PCV-200 bonnet & manifold bleed & Pump Diaphragm) to be vented to skid-edge
- Tubing Details:

SERVICE	SIZE	TUBE	FITTINGS	BACK FERRULES	FRONT FERRULES
INSTRUMENT	3/8"	SS	CPCS	SS	CS
PROCESS	1/2"	SS	CPCS	SS	CS



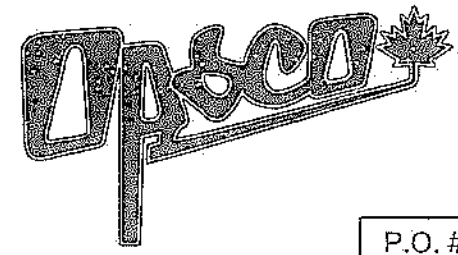
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ELECTRICAL: HOOKUP OF HEATER CABLES ONLY (CLASS 1 DIV.2)

ATTACH BENCH TEST CERTIFICATE TO ALL PSVS

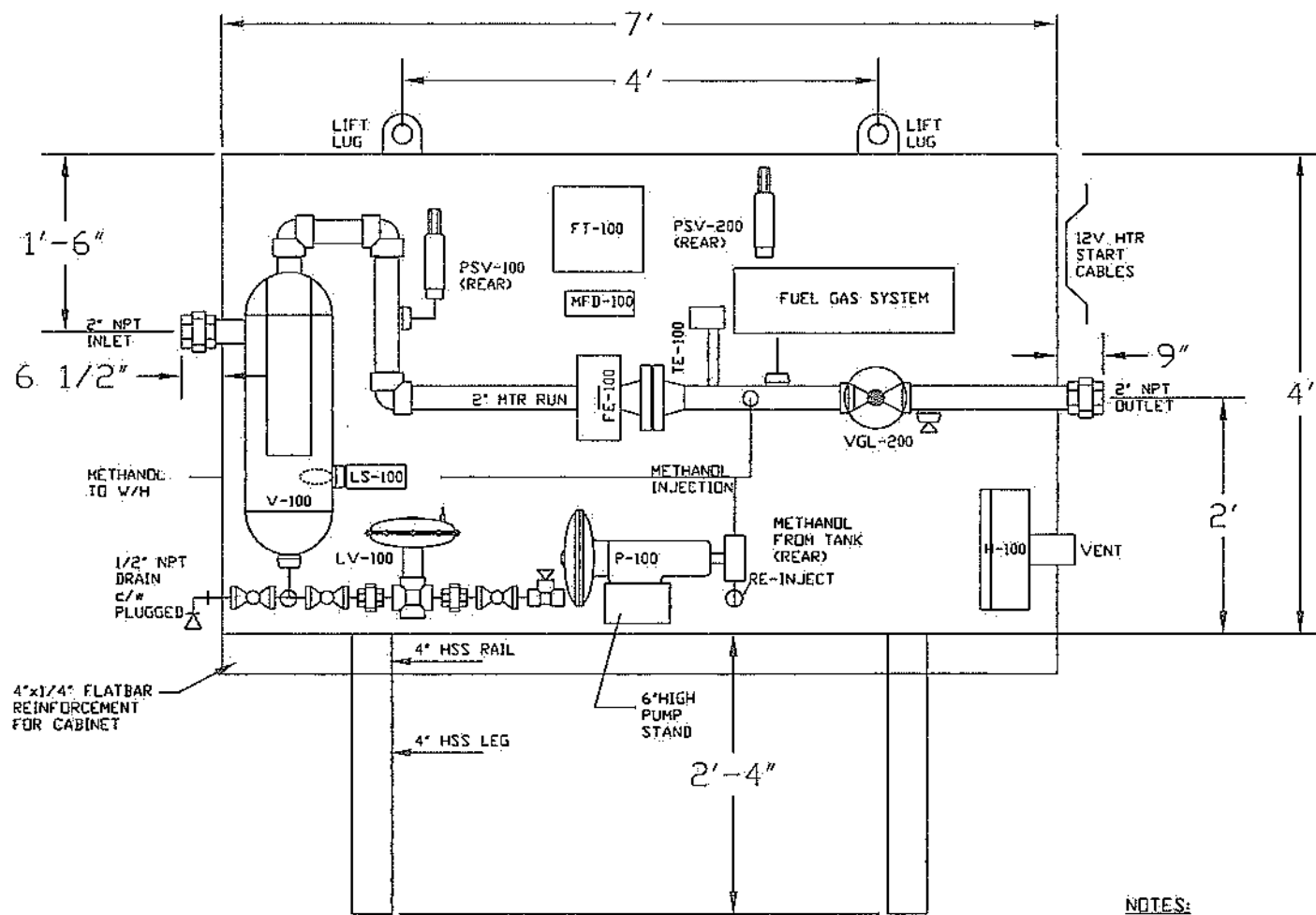
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1	12/08/04	ISSUED FOR CONSTRUCTION	C.T.	APPD. BY	
2	03/02/05	AS BUILT	C.T.		

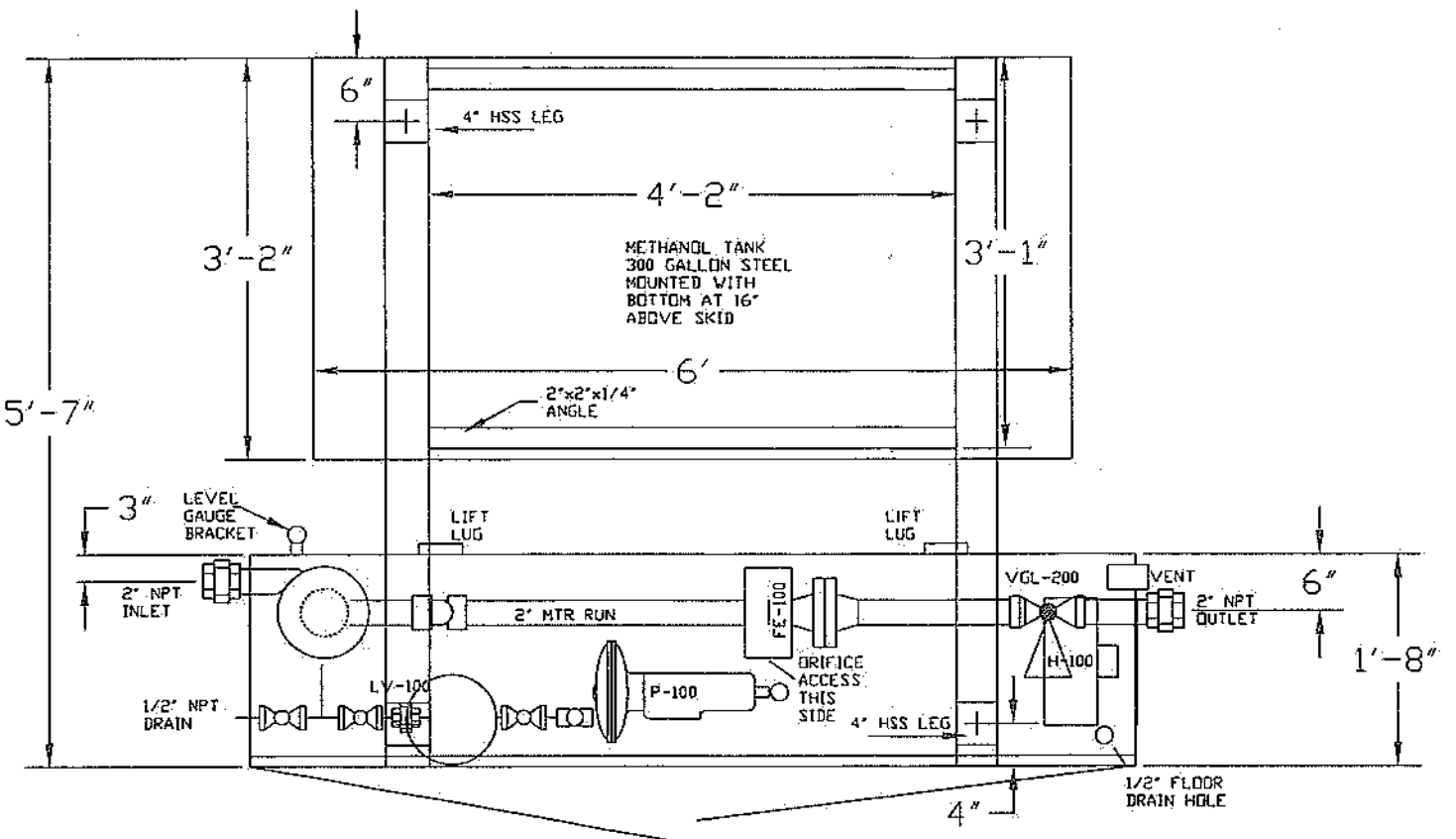


P.O. # 7105-D002

CLIENT	ENCANA CORPORATION C/O DPH ENGINEERING		
PROJECT	METER UNIT TYPE "A"		
TITLE	FLOW DIAGRAM		
SCALE	JOB No.	DWG. No.	REV.
NTS	JM-04-4249	F-04-4249-1172	2



ELEV VIEW



PLAN VIEW

NOTES:

- DO NOT CAULK AROUND SMALL TUBING VENTS.
- MINIMIZE TUBING VENT EXTERNAL PROJECTION BUT KEEP DOWNWARD BEND

INTERIOR INSULATION:

- DOORS, WALLS & ROOF: 1" THICK SPRAY-ON URETHANE C/W FIRE-RETARDANT COATING
- FLOOR: REMOVABLE 1" THICK STYROFOAM (FOR FLOOR DRAINAGE ACCESS)

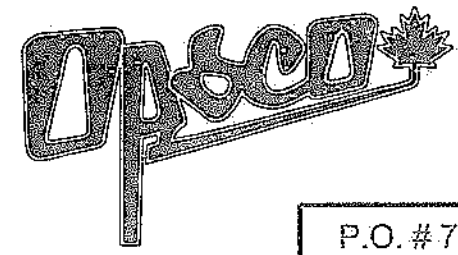
CABINET: WELDED 14 GAUGE CS C/W DOORS, 1/4 TURN HANDLE INLET/OUTLET VENTS

SANDBLAST: SSPC-6
 PRIME: 1 COAT LEAD OXIDE
 PAINT: 1 COAT INDUSTRIAL ENAMEL TAUPE C/W FLAT BLACK VESSEL & PCR COLOR BANDS

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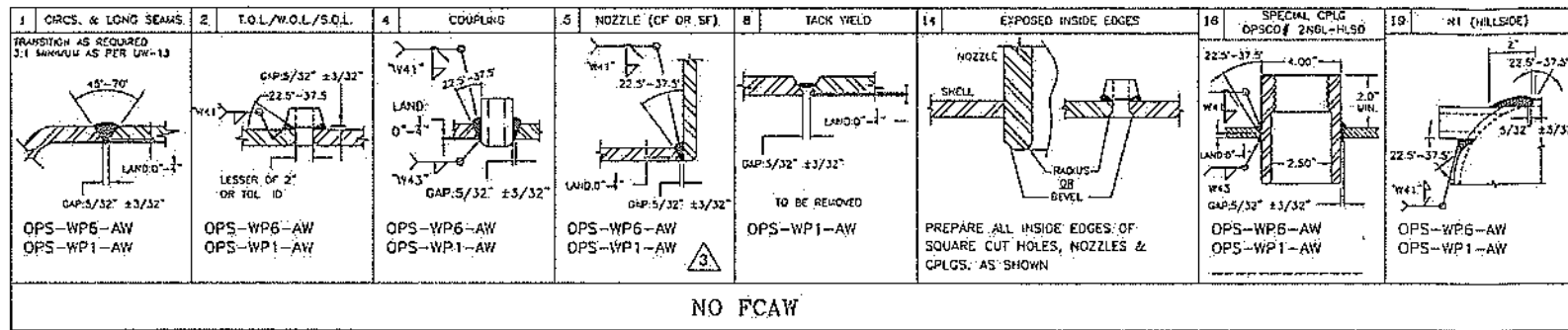
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No.	DATE	REVISIONS	BY	ENGINEERS RECORD	DATE
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1	12/08/04	ISSUED FOR CONSTRUCTION	C.T.	APPD. BY	
2	03/02/05	AS BUILT	C.T.		



CLIENT		ENCANA CORPORATION C/O DPH ENGINEERING	
PROJECT		METER UNIT TYPE "A"	
TITLE		LAYOUT	
SCALE	JOB No.	DWG. No.	REV.
NTS	JM-04-4249	L-04-4249-2212	2

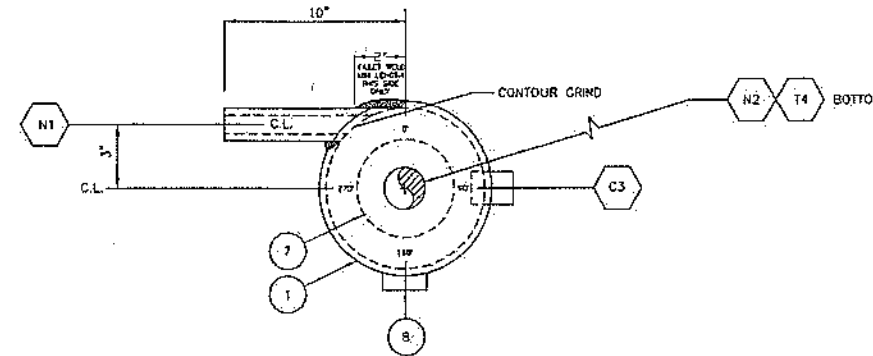
P.O. # 7105-D002



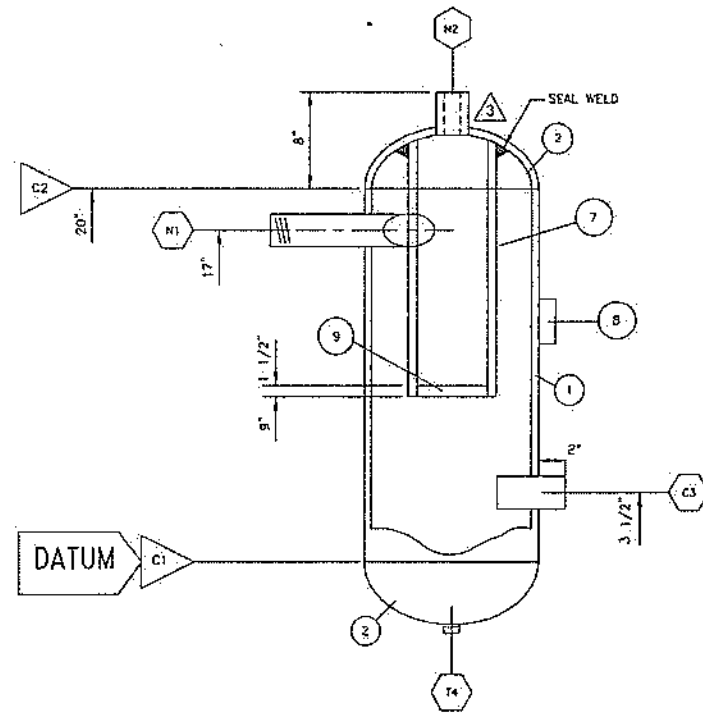
NO FCAW

BILL OF MATERIAL									
ITEM	REQ'D	SIZE	TYPE	RATING	SCH.	MAT'L SPEC	DESCRIPTION		
1	1	8.625"	SHLS		100	SA 105 B or SA-333-6	PIPE - 0.593" WT		
2	2	8.625"				SA-516-70M	2 1 SE HEADS SA-516-70M 8.625" OD x 0.625" THK x 0.515" MIN		
3	AS REQ'D	2"	SHLS		XXH	SA 105 B or SA-333-6	PIPE		
4	AS REQ'D	2"	SHLS		160	SA 105 B or SA-333-6	PIPE		
5	1	2" NPT	CPLG			SA 105N	OPS-CD CPLG # 2 INCL-HLSD		
6	1	1"	TOL	6000M		SA 105	TOL DN HEAD		
7	AS REQ'D	4"	SHLS		40	SA 105 B or SA-333-6	PIPE		
8	1	6" x 4"				SA-516-70	NAMEPLATE BRACKET		
9	1	1.5" x .375"				SA-516-70	VORTEX BREAKER		

BOM X 20



ORIENTATION
(N.T.S.)



ELEVATION
(N.T.S.)

DWG. RELEASE
FABRICATION COPY NO: ___ OF ___
DATE: _____
SIGNED: _____

NOZZLE SCHEDULE											
MARK	SIZE	RATING	TYPE	SERVICE	W.D	FILLET WELD SIZE			ITEM		
						W41	W42	W43			
N1	2"	KXH	NHPT	INLET/INSP.	14.19	7/16"		BV	CF	AS	3
N2	2"	160	NHPT	OUTLET	5.14	3/8"		BV	CF	CF	4
C3	2"	6000M	CPLG	LEVEL SWITCH/INSP	14.16	3/8"		BVA	SEC	AS	5
T4	1"	6000M	TOL	DRAIN/INSP	2.14	3/8"					6

CF = CONTOUR FLUSH
BV = BACKWELD
BVA = BACKWELD WHERE ACCESSIBLE

DESIGN DATA									
DESIGN & CONSTRUCTION	Vessel to be designed and constructed in accordance with ASME Boiler and Pressure Vessel Code Section VIII Div. 1 Code Year: 2001 Addenda: 2001								
NHPT	-20°F., exempt from impact testing as per UG-204 (1)-1								
WMP	1400	Fein	10205	KPa	SERIAL No.	01-4249 - 1	TEN 20		
DESIGN TEMPERATURE	100	°F	38	°C	CRN		P4395.2		
MINIMUM PRESS.	2250	PSIG	155.0	PSI	TAC No.		1-100		
CODE ALLOWANCE	0.0625	INCH	1.60	MM	YEAR BUILT		2004		
VOLUME	0.919	Cu. FT.	0.023	Cu. M	INSPECTION BY		ASA		
WELDING	RT-2				APPROX. SHIPPING WT.		SEC. 152 CBS		
STRESS RELIEF	N3				FINAL DWT. ETC.		100%		

RT-2: Spot on circs. as per UW105b & UW-52
NOTE: FOR FABRICATION TOLERANCES REFER 'STANDARD FABRICATION TOLERANCES FOR UNFIRED PRESSURE VESSELS, (REV. 0)'

No.	DATE	REVISIONS	BY
0	DEC 08 2004	PRELIMINARY	C.F.
1	DEC 08 2004	COPIED DRG # V-04-4174-2684	C.F.
2	DEC 08 2004	CHECKED BY P.E. / O.C.	C.F.
3	DEC 08 2004	ISSUED FOR CONSTRUCTION	C.F.
3	DEC 08 2004	REMOVED WELD #20, ADDED WELD #8	B.J.
3	DEC 08 2004	RE-ISSUED FOR CONSTRUCTION	B.J.
4	DEC 08 2004	AS BUILT	C.F.

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ENGINEERS RECORD	DATE
DRAWN BY: CHANDRA THANNI	DEC. 08, 2004
CHECKED BY:	
APPROVED BY:	

Opsco CLIENT: ENCANA CORPORATION
C/O DPH ENGINEERING
PROJECT: WATER UNIT TYPE 'A'
TITLE: 8.625" O.D. x 20" S/S MINI-CYCLONE SEPARATOR
SCALE: 1"=12" JOB NO: JM-04-4249 Dwg. No: V-04-4249-2755 REV: 4
P.O. # 7105-0003

3/2/2005 9:36:04 AM, chandra, 1:26.3758