


E1# 151221

SN PP-106

Certified by **GRANDE PRAIRIE**
ALBERTA
CANADA

 **Propipe**
Group

MAWP	343	KPA at	33	°C
MAWP (EXT)		KPA at		°C
MDMT	343	°C at	343	KPA


S/N **PP-106**

YEAR BUILT **2013**

C.R.N. **VE432-29** C.A. **3.2 DN**

SHELL MAT **SA-312-702** SHELL THK **13.375MM**

HEAD MAT **SA-312-702** HEAD THK **13.375MM**


 **626778**

Received
APR 15 2013
SMCI-DC

encana™

natural gas

V-900
100 bbl COMPRESSOR WASTE OIL STORAGE VESSEL
Location: c-12-B / 93-P-9
P&ID Drawing Package
Rev.D

SOLARIS MANAGEMENT CONSULTANTS INC.		
Project#	VDD#	PO#
EN10-01046		14
1	<input checked="" type="checkbox"/>	PROCEED
2	<input type="checkbox"/>	PROCEED, CHANGE AS NOTED & RESUBMIT
3	<input type="checkbox"/>	DO NOT PROCEED, CHANGE AS NOTED & RESUBMIT
4	<input type="checkbox"/>	PROCEED AND RESUBMIT CERTIFIED
10	<input type="checkbox"/>	DATA RECEIVED FOR INFORMATION ONLY
By:		Date: 4/29/13
ACCEPTANCE OF THIS DOCUMENT BY SOLARIS DOES NOT RELIEVE THE VENDOR OF ANY RESPONSIBILITY UNDER THE TERMS AND CONDITIONS OF THE APPLICABLE CONTRACT OR PURCHASE ORDER		



PREPARED BY:

Propipe Group Ltd.
#525 999 8th SW
Calgary, Alberta T2R 1J5
Tel: (403) 541-9400 Fax: (403) 541-9401
www.propipegroup.com

PROPIPE PROJECT #: ENC-225-PI-00

TH-900
ENCLOSURE HEATER

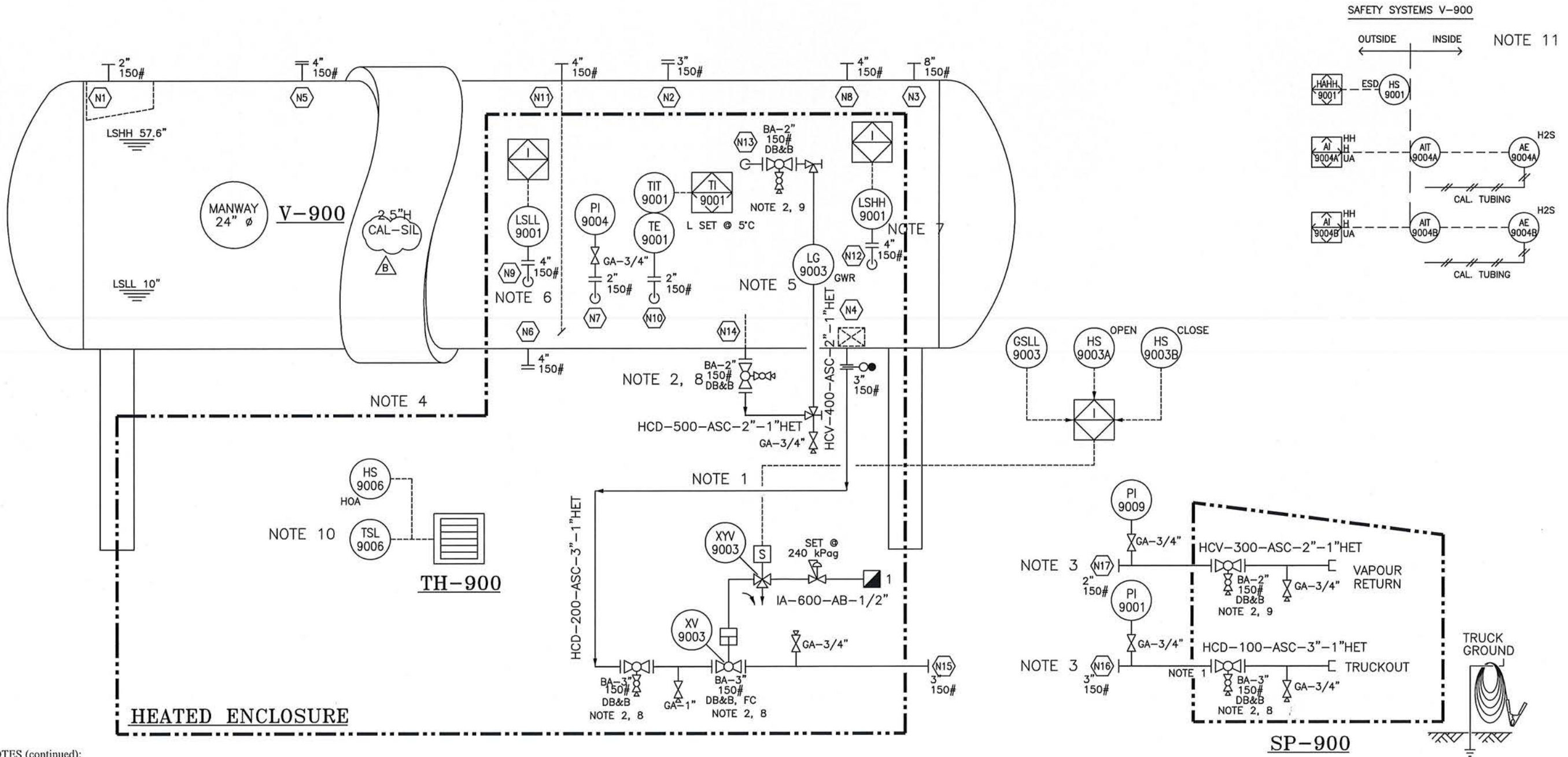
RUFFNECK ELECTRIC HEATER
FX5-600-360-100-W
(10KW, 600V, 3 phase, 60 HZ.)
Produces 34,500 BTUH

V-900
100bbl COMPRESSOR WASTE OIL STORAGE VESSEL

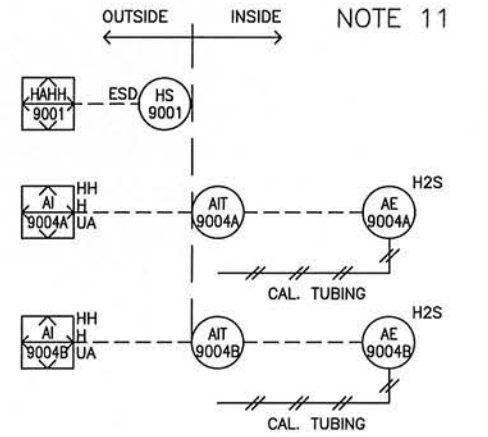
SIZE: 72"ID X 20' S/S
DESIGN: 50 PSIG @ -45°F/100°F/ 1/8" CA
SOUR SERVICE
CRN: -
INTERNALLY COATED WITH DEVOE 253

SP-900
LOAD LINE SPILLBOX

(2" & 3") DUAL OUTLET
SIZE: 26" WIDE X 13.5" DEEP X 23.5" LONG
12 GAUGE HEAVY STEEL, 96 LBS
15 GALLON, BOTTOM RELEASE VALVE



SAFETY SYSTEMS V-900



GENERAL NOTES (continued):

- 8. DBB Valve to be FP and Liquid Service
- 9. DBB Valve to be FP and Gas Service
- 10. HS 9006 & TSL 9006 to be shipped loose.
- 11. HS 9001, AIT 9004A, AE 9004 A, AIT 9004B & AE 9004B to be shipped loose.

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	05/12/12	-	
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD

GENERAL NOTES:

- 1. The mandate is to coat all truck-out and drain piping with Devoe 253
- 2. Isolation valves shall be coated with IPC 3000 corrosion protective coating
- 3. Both vapour return and truck-out connections shall be terminated outside of the spill box with 2" & 3" flange connections
- 4. Cladding to be 0.024 smooth aluminum
- 5. Ensure LG-9003 covers LSHH-9001
- 6. Ensure LSL-9001 is located at least 10' from bottom of vessel.
- 7. Ensure LSHH-9001 is located at 57.6"



encana

natural gas
SWAN COMPRESSOR STATION
LSD: c-12-B/93-P-9
100bbl COMPRESSOR WASTE OIL STORAGE VESSEL V-900

JOB#	DRAWN	DATE	DRAWING NO.	REV.
ENC-225	MB	20/02/13	ENC-225-PI-02	B

#	LINE DESIGNATION				DESCRIPTION			OPERATION		DESIGN CONDITIONS				TEST CONDITIONS			INSULATION		TRACING			COATING		ENC-225 LINE LIST		
	ITEM	LINE NO.	PIPING Class	SIZE (NPS)	FROM	TO	SERVICE	PRESS. (Kpa)	TEMP. (C)	PRESS. (Kpa)	TEMP. (C)	CORR. ALLOW. (mm)	ACTUAL THK/SCH (mm)	PRESS. (Kpa)	TEMP. (C)	MEDIUM	THK. (mm)	TYPE	TYPE	NO.	INTERNAL COATING	X-RAY %	P.W.H.T.	REFERENCE P&ID		
1	HCD	100	ASC	3"	SPILL BOX SKID EDGE	SPILL BOX TRUCKOUT	SOUR	-	-	1965	-45/260	3.2	SCH 40	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	DEVOE 253	100%	YES	ENC-225-PI-02		
2	HCD	200	ASC	3"	VESSEL (N4)	VESSEL SKID EDGE	SOUR	-	-	1965	-45/260	3.2	SCH 40	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	DEVOE 253	100%	YES	ENC-225-PI-02		
3	HCV	300	ASC	2"	SPILL BOX SKID EDGE	SPILL BOX VAPOUR RETURN	SOUR	-	-	1965	-45/260	3.2	SCH 80	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	N/A	100%	YES	ENC-225-PI-02		
4	HCV	400	ASC	2"	VESSEL (N13)	THRU LEVEL GAUGE TO DRAIN	SOUR	-	-	1965	-45/260	3.2	SCH 80	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	N/A	100%	YES	ENC-225-PI-02		
5	HCD	500	ASC	2"	VESSEL (N14)	HCV-400-ASC-2"-1"HET	SOUR	-	-	1965	-45/260	3.2	SCH 80	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	N/A	100%	YES	ENC-225-PI-02		
6	IA	600	AB	1/2"	IA-600-AB-2"	CONTROL VALVE	SWEET	-	-	1965	-45/149	3.2	SCH 80	2947.5	AMB	H2O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ENC-225-PI-02		

B

GENERAL PIPING NOTES:


- All piping shall be constructed in accordance with the latest edition of B31.3 pressure piping code.
- a) All sour piping shall include 3.2mm CA and be constuded as follows
 ASC spec 1/2" shall be sch 160
 ASC spec 3/4" thru 2" shall be sch 80
 ASC spec 3" thru 10" shall be sch 40
 All sour service piping shall be subject to 100% radiography & PWHT. All fillet welds to be 100% MP1'd.
- b) Sour service material;
 Pipe 1/2" thru 12" shall be SA-333-6
 Flanges 1/2" thru 12" shall be SA-350-LF2
 Saddle & other attachment material SA516-70N
 Studs shall be SA-193-B7M
 Nuts shall be SA-194-2HM
 Gaskets shall be 316SS Flexatalic
 Socket weld fittings 1/2" shall be Class 6000 SA-350 LF2 CL-1
 Socket weld fittings 3/4" to 1-1/2" shall be Class 3000 SA-350 LF2 CL-1
 Tubing shall be 0.035" wall smls ASTM A 269 TP 316 SS (1/2" OD maximum)


Data Sheets for instrumentation are provided by vendors once items have been ordered.

ENC-225 COMPRESSOR WASTE OIL STORAGE VESSEL BOM			
ITEM #	TAG #	QTY	DESCRIPTION
1	LG-9003	1	Penberthy 5TM8 Level Gauge w/ 330J Site Glass Valves
2	XV-9003	1	1pc GROVE# 9K-4C03F01F00A 3" 150# RF FP Sour Low Temp. Trunnion Ball Valve c/w Bettis # CBB725SR80-11 Pneumatic Spring Return Actuator - Mounted/ Tested - 80 P.S.I. Supply - Fail Closed, c/w Pressure Regulator Fisher 67CFR with Integral Pressure Gauge
3	LSHH-9001	1	SOR Electric Level Switch Model 1510C-G4C-C-L1-ES-CSNC, 4" RF, 150# connection, CSA, 316 SS body, 316 SS float, MC Option (Manual Check)
4	LSSL-9001	1	SOR Electric Level Switch Model 1510C-G4C-C-L1-ES-CSNC, 4" RF, 150# connection, CSA, 316 SS body, 316 SS float, MC Option (Manual Check)
5	XYV-9003	1	ASCO 3-way solenoid valve Model EF8314G301-24 SST, Explosion proof Normally closed 24 VDC, 100 psig max supply pressure
6	PI-9001/9004/9009	3	Dual scale, silicone filled Case Bourdon Tube Pressure Gauges, c/w min 4" diameter face & SS case/WIKA Type 233.53
7	GA-3/4"	7	3/4" 800, SW x THD, A350 LF2, TR12, OS&Y, BB, NACE Gate Valve
8	GA-1"	1	1" 800, SWXTHD, A350 LF2, TR12, OS&Y, BB, NACE Gate Valve
9	TH-900	1	Roughneck Electric heaters quoted FX5-600-360-100-W (10KW, 600V, 3 phase, 60 HZ), Produces 34,500 btu/hr
10	BA-2"	3	2" Grove gas service double-block and bleed isolation valve, 3/4" drain valve, FULLPORT, (including SPILLBOX [Camlock connection on the Truck-out line])
11	BA-3"	3	3" Grove liquid service double-block and bleed isolation valve, 3/4" drain valve, FULLPORT, (including SPILLBOX [Camlock connection on the Vapour Return line])
12	TE-9001	1	Rosemount 68 series (Model Number 0068R21C30Z0F62E6), c/w explosion proof connection head, 2" RF150# tapered, NACE thermowell
13	TIT-9001	1	Rosemount 644 for control and monitoring applications. All should include local displays. (Model Number 644HAK6J6F6M5)
14	HS-9006	1	Cooper Crouse Hinds, class 1 div 2, Group B, C, D / Local H-O-A Selector switch, DSD925 w/ gang (ESD271) (for TH-900)
15	HS-9001	1	ESD push button, Crouse Hinds model DSD 9185769 C/W NC-CH1-QA cover
16	AE/AIT-9004A/B	2	H2S Gas Detectors, Electromechanical H2S sensor Assy 100ppm - Aluminum c/w sensor electronics & housing for use with NET SAFETY Millennium II Controller, M21-A-JB-MPD-A-CCS-1 c/w ST322A-100-ASSY
17	TSL-9006	1	Remote Thermostat, XTB Explosion-Proof Thermostat, Remote sensing bulb with 57" capillary length, XTB04881 (Single Pole, Single Throw) (for TH-900)
18	SP-900	1	Dura Life Load Line Spillbox, (2" and 3") Dual Outlet, 26" Wide x 13.5" Deep x 23.5" Long, 12 Gauge Heavy Steel, 96lbs, 15 Gallon, Bottom Release Valve

All materials shall be rated for -40°C
 All materials shall comply to NACE MR01-75 / ISO 15156 latest certified
 All instrumentation shall be identified with a stainless steel tag

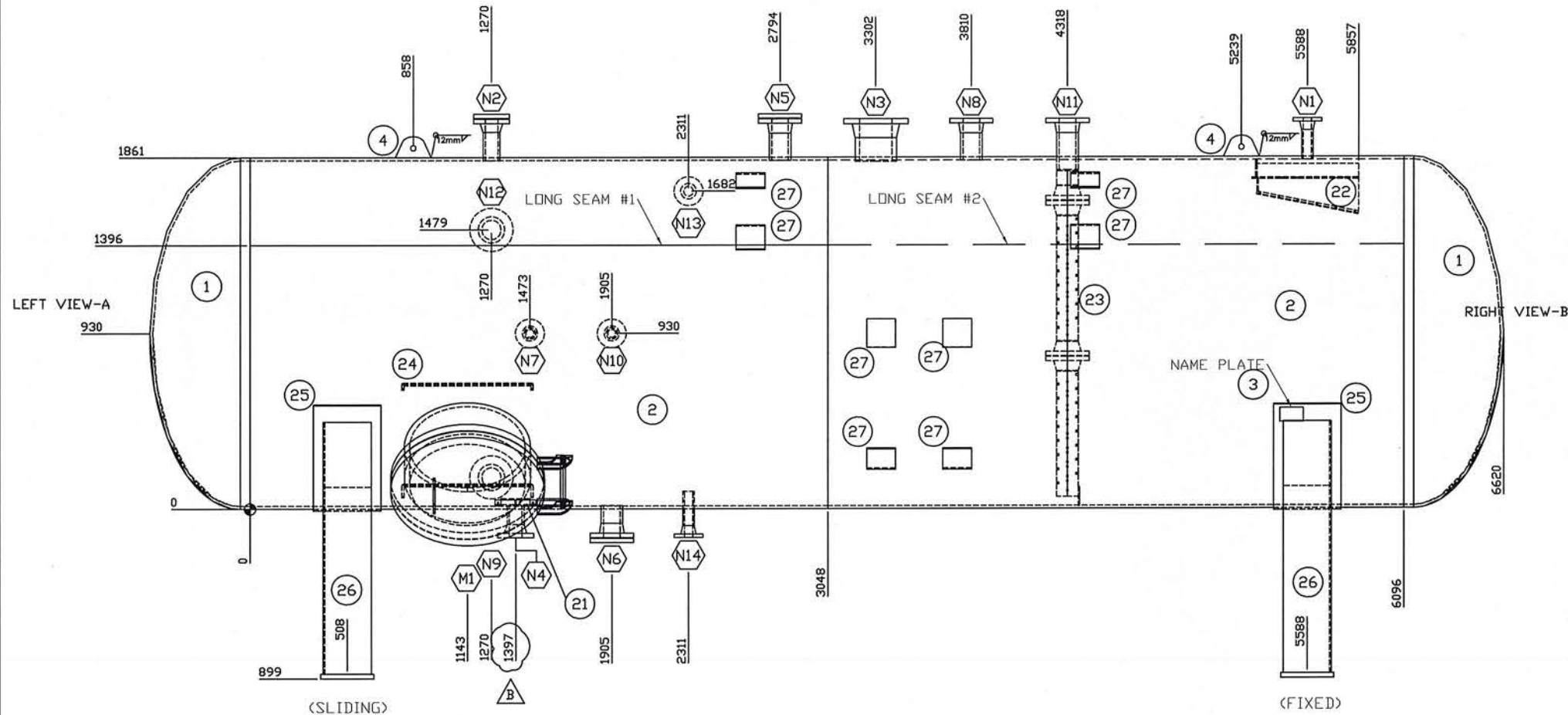
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A	ISSUED FOR CONSTRUCTION	MB	05/12/12	-								
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-								
C	ISSUED FOR CONSTRUCTION	MB	15/04/13	-								




natural gas
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100bbi COMPRESSOR WASTE OIL STORAGE VESSEL V-900

JOB#	DRAWN	DATE	DRAWING NO.	REV.
ENC-225	MB	15/04/13	ENC-225-PI-03	C

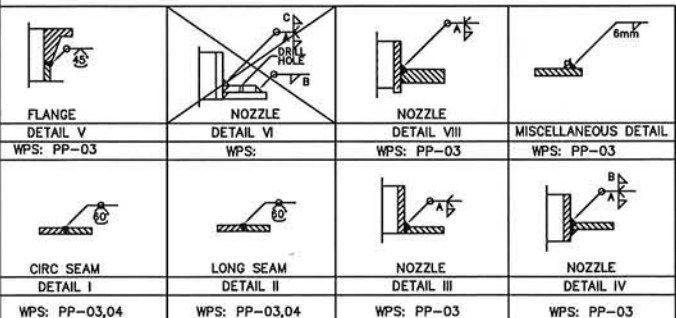
VESSEL ELEVATION



PP-106 VESSEL Bill of Material					
TITLE	ITEM	DESCRIPTION	MATERIAL	QTY	
VESSEL	1	VESSEL HEAD: 2:1 SE HEAD: 72" (1829mm) ID X 0.625" (16mm) NOM THK, 0.5625" (14.5mm) MTAF, 50mm SF	SA-516-70N	2	
	2	VESSEL PLATE (SHELL): 72" (1829mm) ID X 0.625" (16mm) NOM THK. X 120" (3048mm) LONG	SA-516-70N	2	
	3	NAMEPLATE BRACKET: NAMEPLATE	SA-36/SS	1	
	4	LIFTING LUG: 7.5" (191mm) WD X 5.5" (140mm) HG X 1" (25mm) THK	SA-516-70N	2	
FLANGES	5	FLANGE: 2" CL150 RFWN C/W SCH 160 BORE (N7,N10,N14)	SA-350-LF2	3	
	6	FLANGE: 2" CL150 RF LWN (N13)	SA-350-LF2	1	
	7	FLANGE: 3" CL150 ANSI RFWN SCH 160 BORE (N2,N4)	SA-350-LF2	2	
	8	FLANGE: 4" CL150 ANSI RFWN SCH 160 BORE (N5,N8,N8,N11)	SA-350-LF2	4	
	9	FLANGE: 4" CL150 ANSI RF LWN (N9, N12)	SA-350-LF2	2	
	10	FLANGE: 2" CL150 ANSI RFWN SCH 160 BORE(N1)	SA-350-LF2	1	
	11	FLANGE: 8" CL150 ANSI RFWN SCH 160 BORE(N3)	SA-350-LF2	1	
	12	FLANGE: 24" CL150 ANSI RF LWN (M1)	SA-350-LF2	1	
	PIPE & ELBOW	13	PIPE: 2" SCH. 160 SMLS BOE/POE (N7,N10,N14)	SA-333-6	3
		14	PIPE: 3" SCH. 160 SMLS BOE/POE (N2,N4)	SA-333-6	2
		15	PIPE: 4" SCH. 160 SMLS BOE/POE (N5,N8,N8,N11)	SA-333-6	4
		16	PIPE: 2" SCH. 160 SMLS BOE/POE(N1)	SA-333-6	1
17		PIPE: 8" SCH. 160 SMLS BOE/POE(N3)	SA-333-6	1	
MANWAY EQUIPMENT		18	BLIND FLANGE: 24" CL150 ANSI RF (M1)	SA-350-LF2	1
		19	STUDS, NUTS: 1-1/4" DIAMETER X 6-3/4" LONG (M1)	SA-193-B7M	1
	20	GASKET: 24" CL150 ANSI SPIRAL WOUND X 1/8" THK (M1) (DWG: PP-106-V-MWY)	316-SS	1	
	INSIDE EQUIPMENT	21	REMOVABLE VORTEX BREAKER (DWG: PP-106-V-RV&SC)	SA-36	1
22		INLET DIVERTER (DWG: PP-106-V-ID)	SA-36	2	
23		STILL COLUMN (DWG: PP-106-V-RV&SC)	-	1	
24		MANWAY & GRAB BAR	SA-516-70N	1	
SADDLE	25	SADDLE WEAR PLATE: 14" (356mm) W X 86" (2184mm) L X 0.625" (16mm) THK.	SA-516-70N	2	
	26	SADDLES: PLATE CUT TO FIT AS SADDLE DETAILS (DWG: PP-106-V-SDL)	SA-36	2	
ATTACHMENT PAD	27	ATTACHMENT PAD FOR LADDER, PLATFORM & BUILDING	SA-516-70N	8	

GENERAL NOTES:

- ALL INTERNAL SHARP EDGES TO BE ROUNDED OFF
- ALL VESSEL INTERNALS TO BE REMOVABLE THROUGH MANWAY.
- ALL BOLTS TO STRADDLE NATURAL VESSEL CENTERLINES.



TITLE	SIZE	TYPE	NOZZLE			PROJECTION		WELD DETAIL	FILLET WELD SIZE		REQUIRED	
			SCH	RATING	SERVICE	OUTSIDE	INSIDE		A	B	IMPACT TEST	NORMALIZED
N1	2"	RFWN	160	CL150	INLET	8" (203mm)	0"	III-V	0.225" (5.7mm)	-	YES	YES
N2	3"	RFWN	160	CL150	SPARE	8" (203mm)	0"	III-V	0.4" (10.2mm)	-	YES	YES
N3	8"	RFWN	160	CL150	PSV	8" (203mm)	0"	III-V	0.375" (9.5mm)	-	YES	YES
N4	3"	RFWN	160	CL150	DRAIN	6" (152mm)	0"	III-V	0.4" (10.2mm)	-	YES	YES
N5	4"	RFWN	160	CL150	SPARE	8" (203mm)	0"	III-V	0.375" (9.5mm)	-	YES	YES
N6	4"	RFWN	160	CL150	DRAIN	6" (152mm)	0"	III-V	0.375" (9.5mm)	-	YES	YES
N7	2"	RFWN	160	CL150	PI	6" (152mm)	0"	III-V	0.225" (5.7mm)	-	YES	YES
N8	4"	RFWN	160	CL150	LPF	8" (203mm)	0"	III-V	0.375" (9.5mm)	-	YES	YES
N9	4"	RF LWN	0.75 WT	CL150	LSLL	20" (508mm)	0"	III	0.375" (9.5mm)	-	YES	YES
N10	2"	RFWN	160	CL150	TE	6" (152mm)	0"	III-V	0.225" (5.7mm)	-	YES	YES
N11	4"	RFWN	160	CL150	LIT	8" (203mm)	2" (51mm)	III-V	0.375" (9.5mm)	-	YES	YES
N12	4"	RF LWN	0.75 WT	CL150	LSHH	8" (203mm)	0"	III	0.375" (9.5mm)	-	YES	YES
N13	2"	RF LWN	0.53 WT	CL150	LG TOP	15" (381mm)	0"	III	0.375" (9.5mm)	-	YES	YES
N14	2"	RFWN	160	CL150	LG BOTTOM	6" (152mm)	2" (51mm)	III-V	0.225" (5.7mm)	-	YES	YES
M1	24"	RF LWN	1.125 WT	CL150	MANWAY	8" (203mm)	0"	III	0.375" (9.5mm)	-	YES	YES

VESSEL DESIGN DATA		
No#	ITEM	SPEC
1	DESIGN CODE:	ASME CODE SEC. VIII DIV I, 2010
2	DESIGN PRESSURE:	50 PSIG @ 100°F (345 kPa @ 38°C)
3	MIN. DESIGN METAL TEMP. (MDMT):	-49°F @ 50 PSIG (-45°C @ 345 kPa)
4	MAX. ALLOWABLE WORK PRESSURE	50 PSIG @ -49/100°F (345 kPa @ -45/38°C)
5	VESSEL HYDROTEST:	448 kPa (65 PSIG)
6	VESSEL VOLUME:	630 R3 (17.9 m3)
7	VESSEL WEIGHT:	15713 lb (7118 kg)
8	CORROSION ALLOWANCE:	1/8" (3.2mm)
9	HEAD THICKNESS:	0.625" (16mm) NOM, 0.5625" (14.3mm) MIN
10	SHELL THICKNESS:	0.625" (15.88mm) NOM
11	SHELL JOINT EFFICIENCY:	ONE (1)
12	NDT:	FULL UW-11a(RT-1)
13	PWHT:	YES, 45 MINUTES @ 1150°F +/- 25°F (621°C +/- 14°C)
14	CHARPY IMPACT REQUIRED:	REQUIRED
15	SURFACE PREP (EXT):	ALL EQUIPMENT SHALL BE SUBJECT TO SSPC-SP#6 COMMERCIAL BLAST, FOLLOWED BY ONE (1) SHOP COAT PRIMER.
16	SURFACE PREP (INT):	INTERNAL COATING WITH DEVCO 253 AS PER MANUFACTURERS SPECS
17	INSULATION:	VESSEL TO BE INSULATED WITH 2-1/2" CAL-SIL ACCORDANCE WITH ENCANVA ECA-X-1 FOR HOT SERVICE.
18	UNITS REQUIRED:	ONE (1)
19	CRN #:	

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-
C	ISSUED FOR CONSTRUCTION (manway handle changed to solid line)	MB	19/03/13	-	-

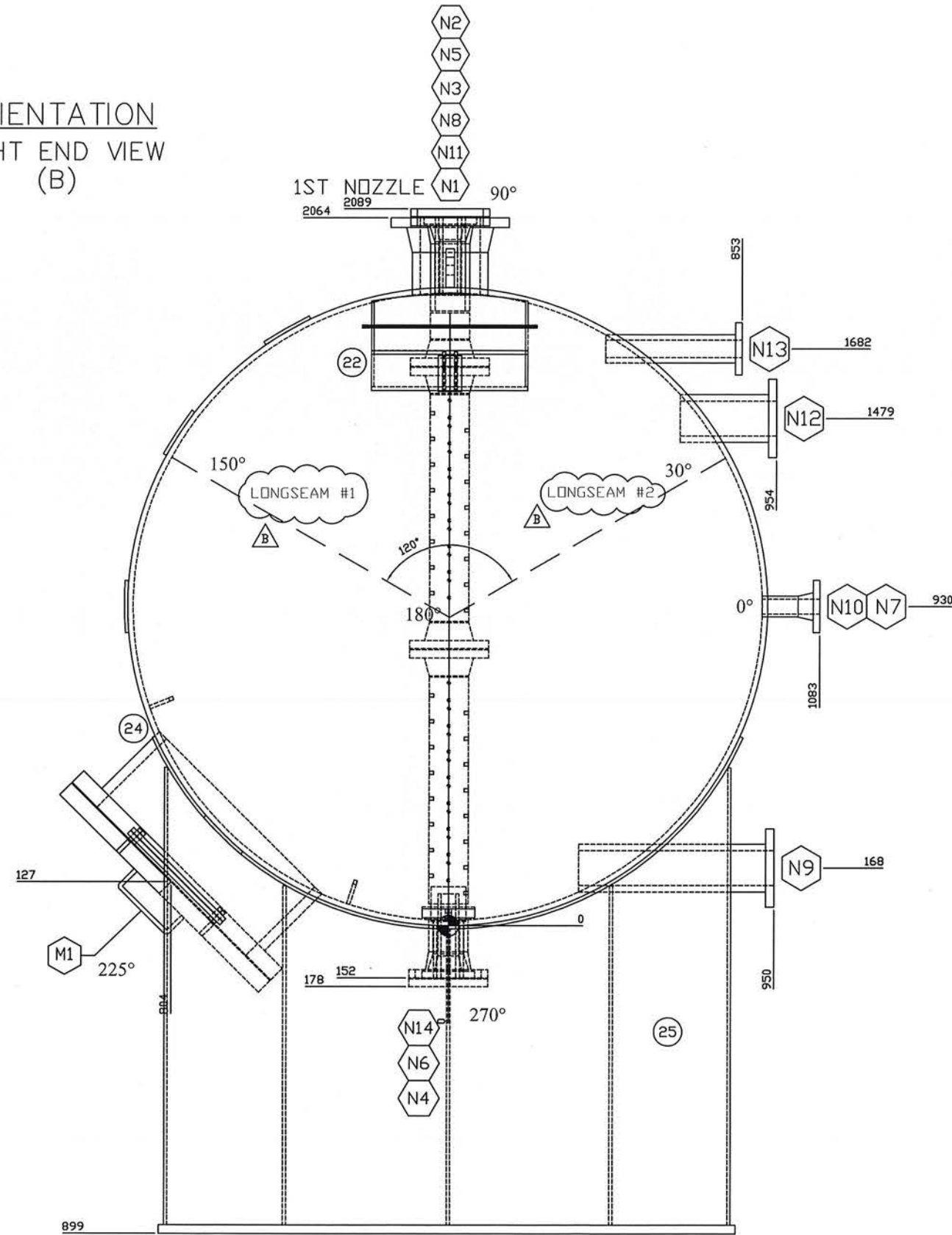
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Propipe GROUP Ltd.

ENCANA CORPORATION
SWAN COMPRESSOR STATION
LSD: c-12-B/93-P-9
1000bbl COMPRESSOR WASTE OIL STORAGE
VESSEL V-900

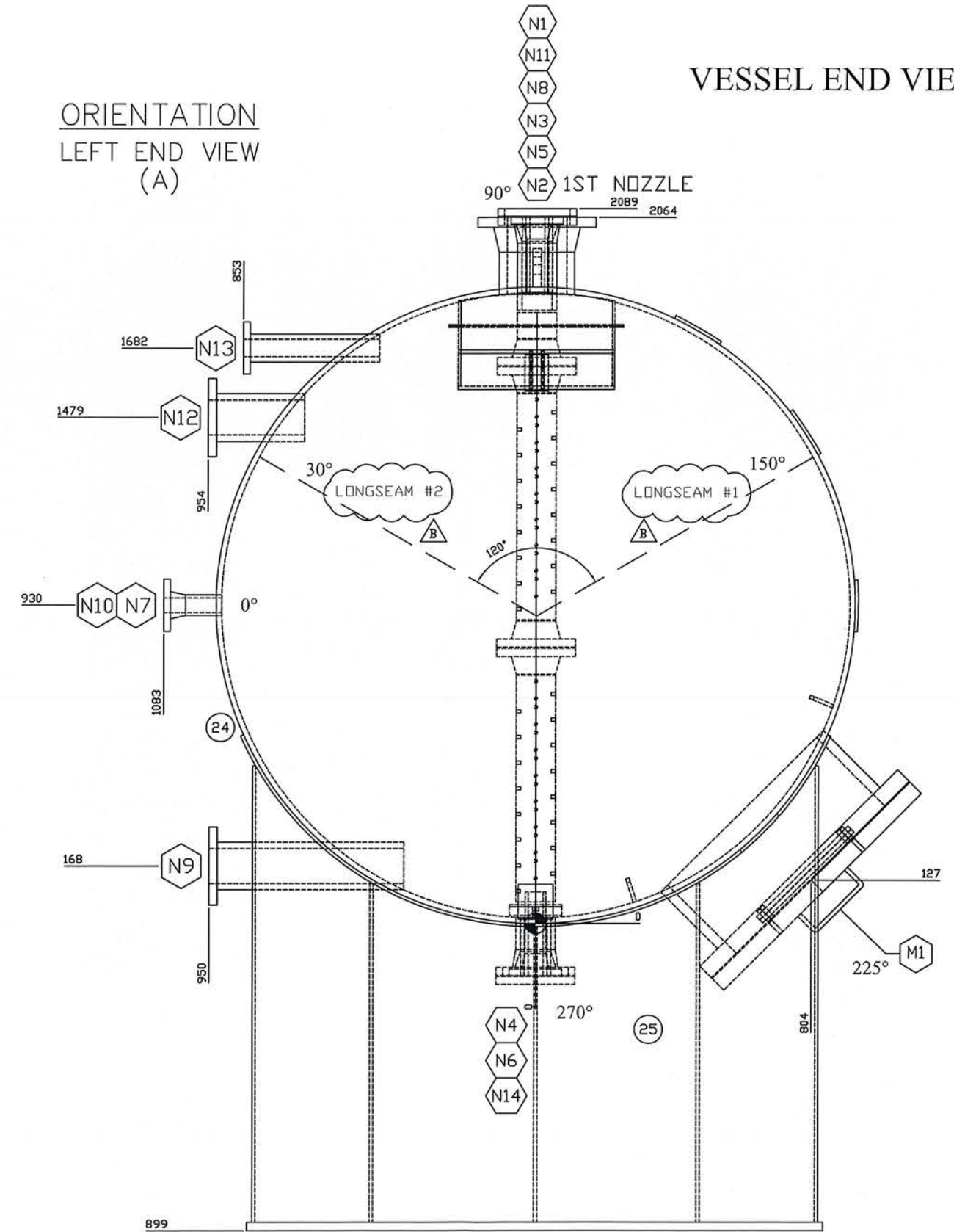
PROPIPE VESSEL #: PP-106	JOB#: ENC-225	DRAWN: MB	DATE: 19/03/13	DRAWING NO: PP-106-V-1	REV: C
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ORIENTATION
RIGHT END VIEW
(B)



VESSEL END VIEW

ORIENTATION
LEFT END VIEW
(A)



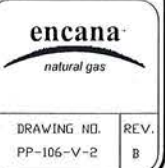
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GENERAL NOTES:

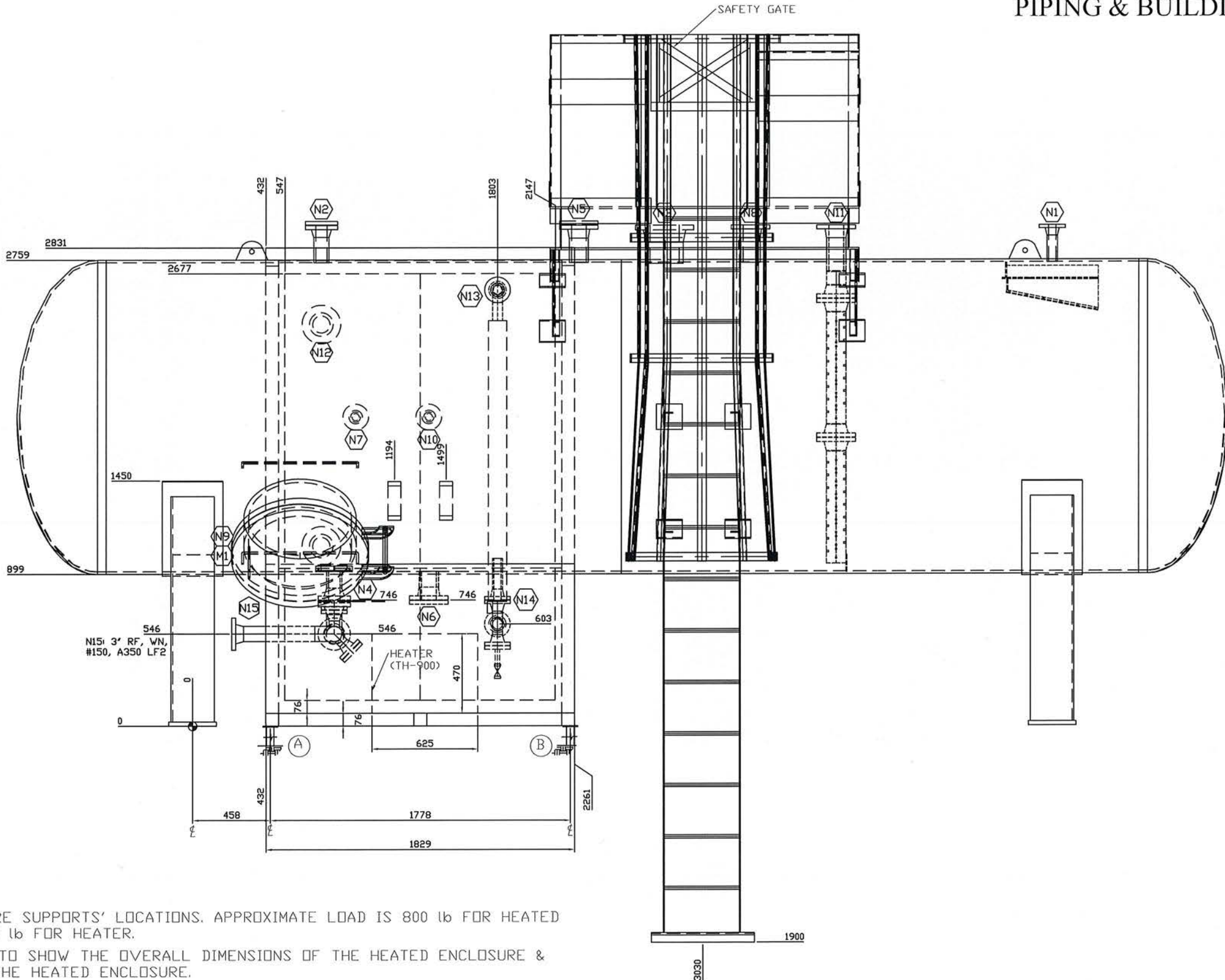


ENCANA CORPORATION
SWAN COMPRESSOR STATION
LSD: c-12-B/93-P-9
100bbbl COMPRESSOR WASTE OIL STORAGE
VESSEL V-900

PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	20/02/13



PIPING & BUILDING ELEVATION



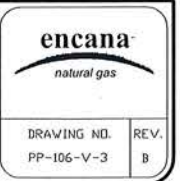
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B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-						

GENERAL NOTES:



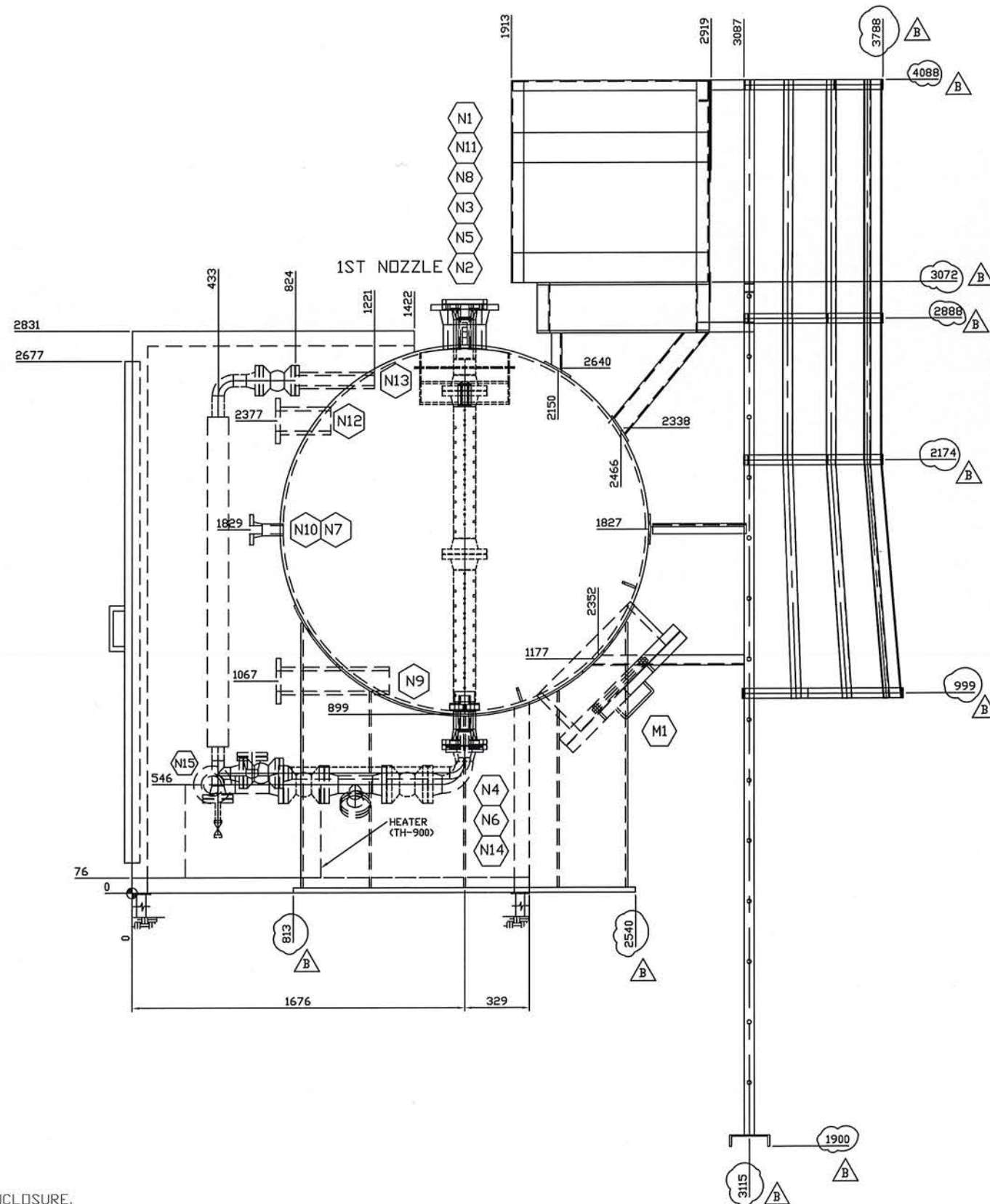
ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100bbbl COMPRESSOR WASTE OIL STORAGE VESSEL V-900

PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	20/02/13



PIPING END VIEWS

LEFT END VIEW
(A)



THIS DRAWING IS ONLY TO SHOW THE PIPES IN THE HEATED ENCLOSURE.

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION (RIGHT VIEW ADDED)	MB	20/02/13	-	-						

GENERAL NOTES:

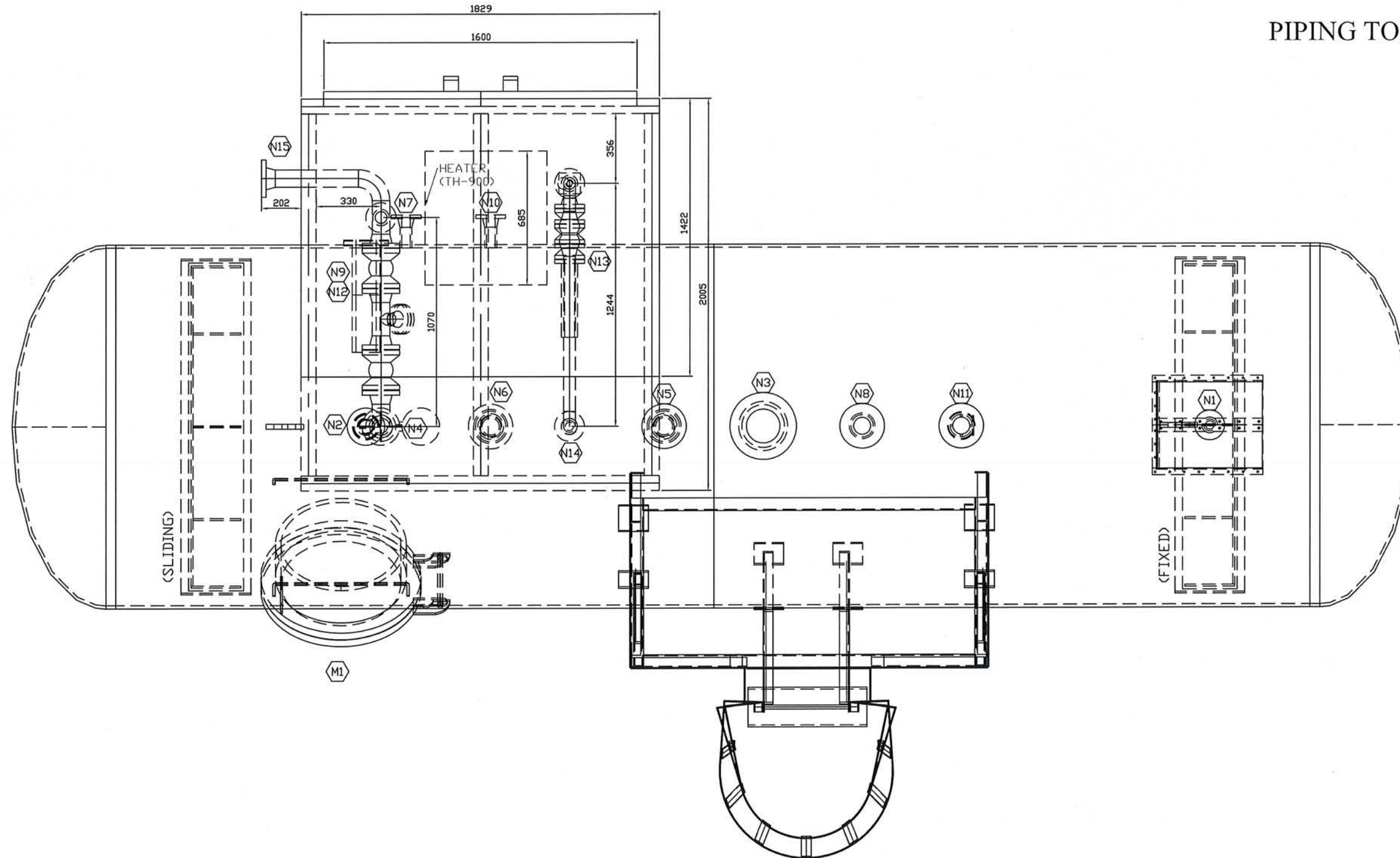


ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 1000bbl COMPRESSOR WASTE OIL STORAGE
 VESSEL V-900

encana
 natural gas

PROPIPE VESSEL #1 PP-106	JOB# ENC-225	DRAWN MB	DATE 20/02/13	DRAWING NO. PP-106-V-4	REV. B
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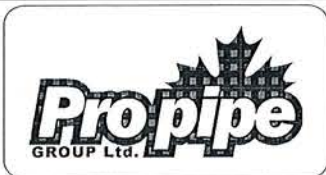
PIPING TOP VIEW



THIS DRAWING IS ONLY TO SHOW THE TOP VIEW OF PIPING INSIDE OF THE HEATED ENCLOSURE.

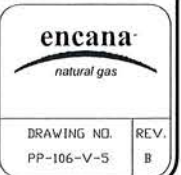
REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-						

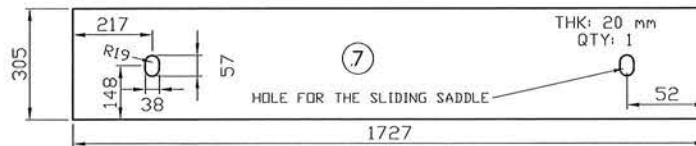
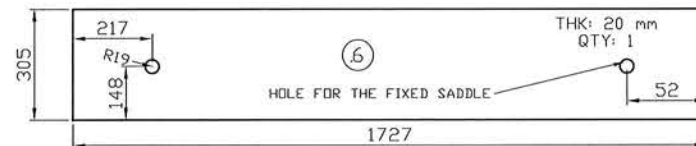
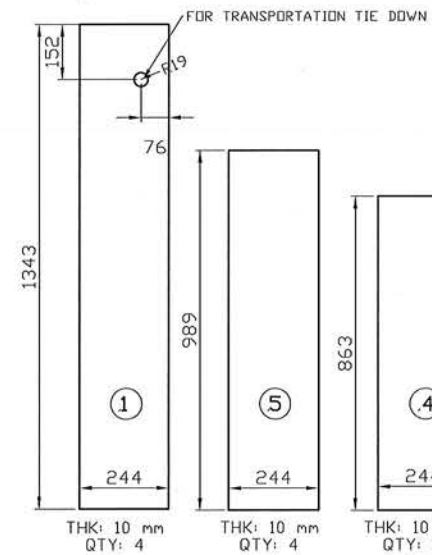
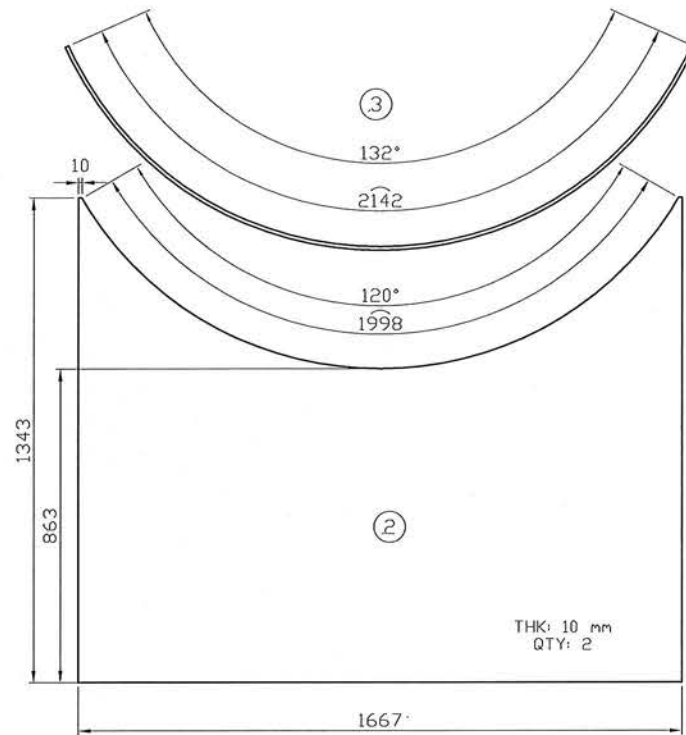
GENERAL NOTES:



ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100bbbl COMPRESSOR WASTE OIL STORAGE
 VESSEL V-900

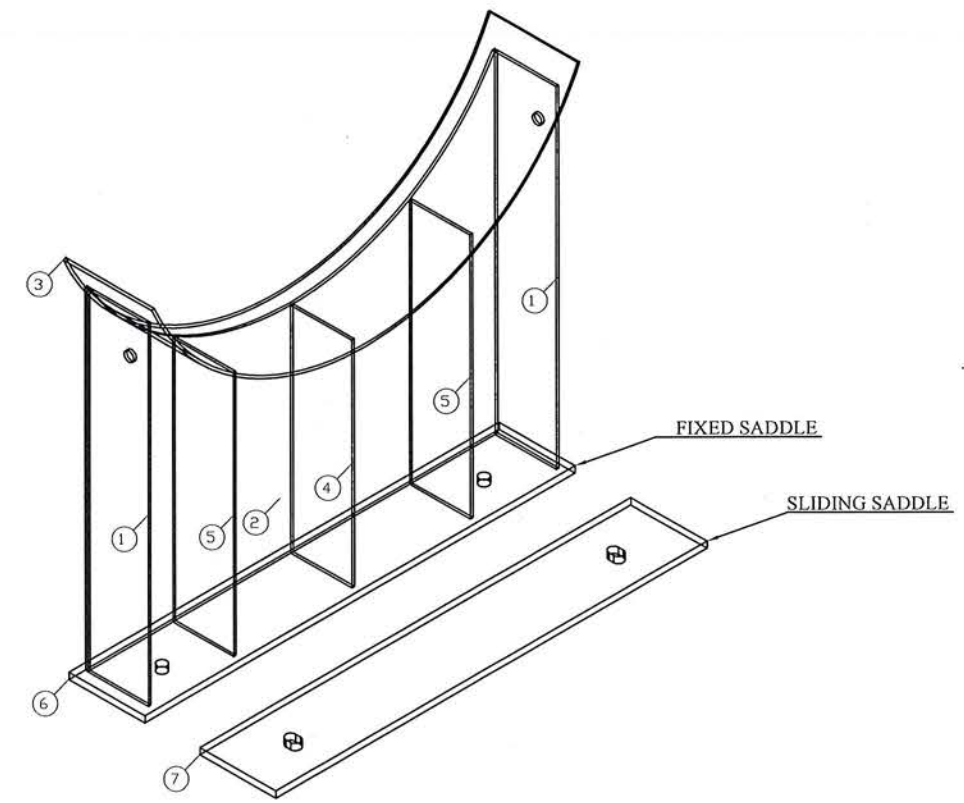
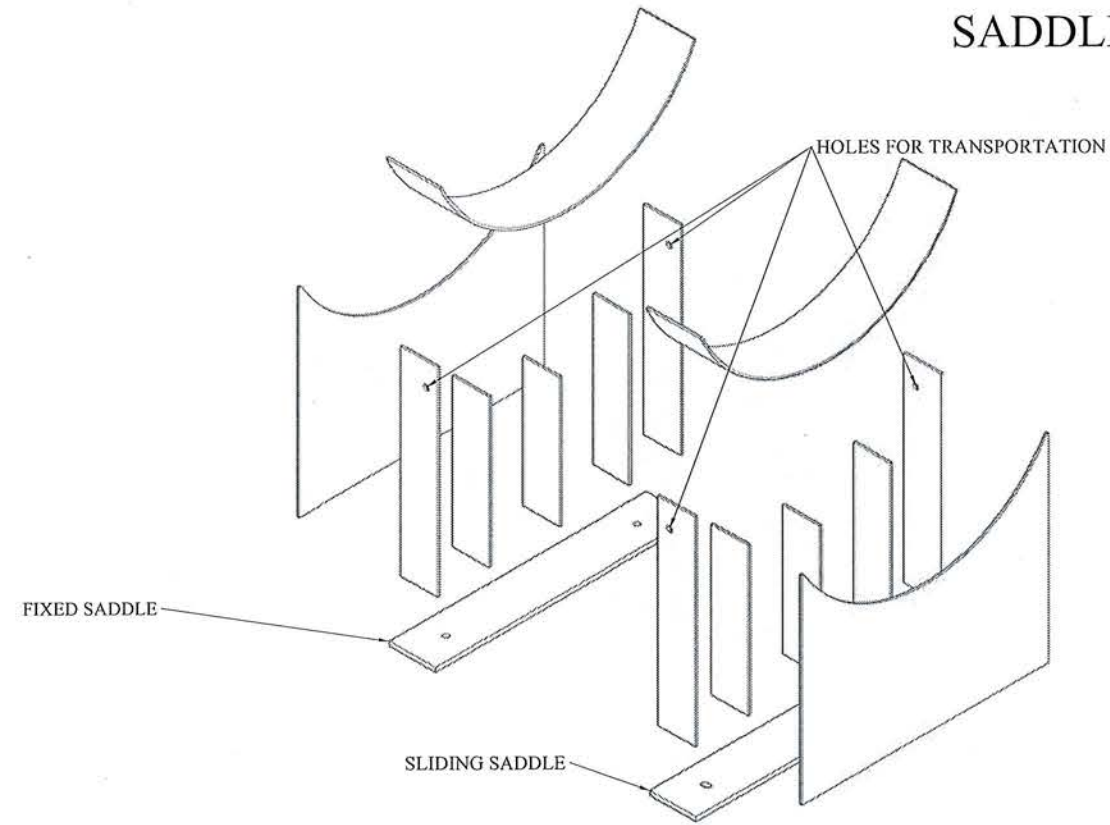
PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	20/02/13





BILL OF MATERIAL			
MARK	QTY	LONG ANNOTATION	MATERIAL
1	4	PL-10 X 1343 X 244	SA-36
2	2	PL-10 X 1667 X 1343	SA-36
3	2	PL-16 X 2142 X 356	SA-516-70N
4	2	PL-10 X 863 X 244	SA-36
5	4	PL-10 X 989 X 244	SA-36
6	1	PL-20 X 1727 X 305	SA-36
7	1	PL-20 X 1727 X 305	SA-36

SADDLE DETAILS



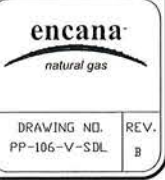
REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-						

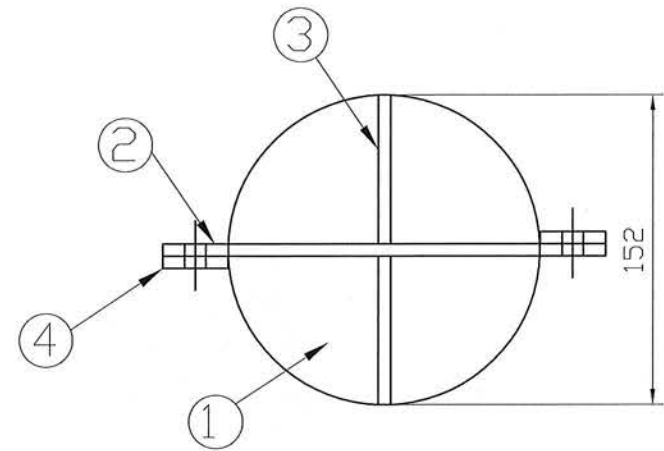
GENERAL NOTES:



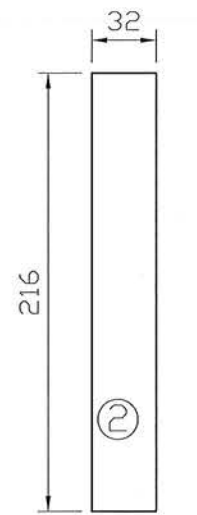
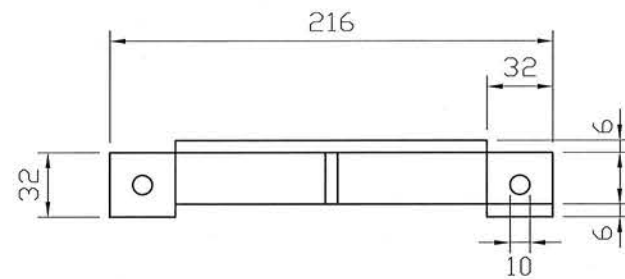
ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100000 COMPRESSOR WASTE OIL STORAGE VESSEL
 SADDLE DETAILS (V-900)

PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	20/02/13

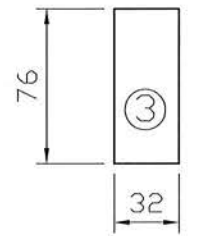




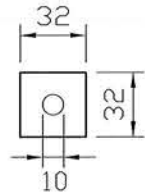
VORTEX BREAKER DETAILS



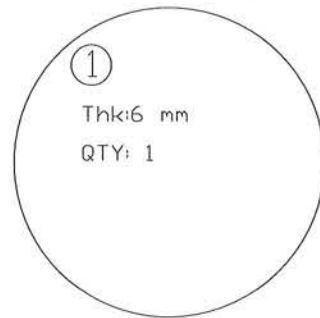
Thk:6 mm
QTY: 1



Thk:6 mm
QTY: 2

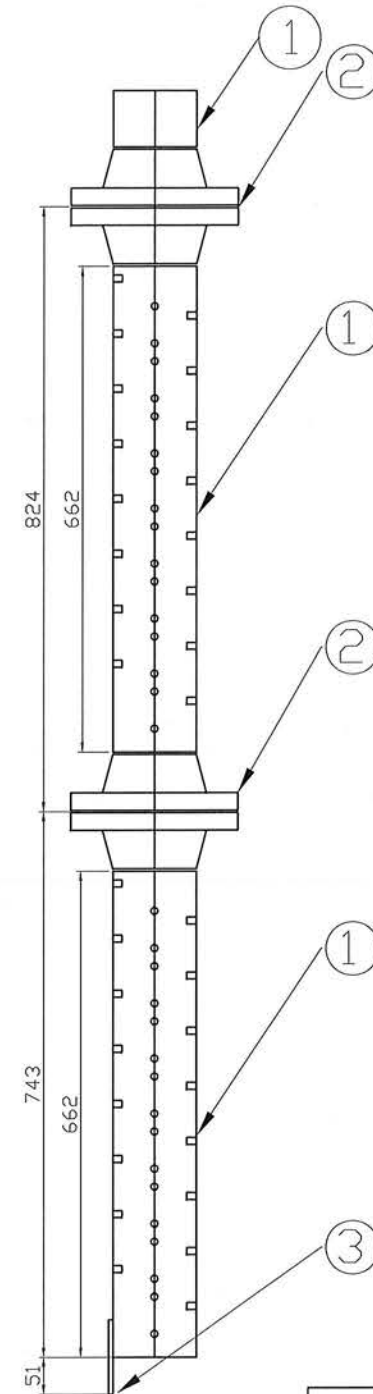


Thk:6 mm
QTY: 2



①
Thk:6 mm
QTY: 1

VORTEX BREAKER PART LIST			
ITEM NO	DESCRIPTION	MATERIAL	QTY
1	PLATE Dia:6" (152 mm)X 0.25" (6 mm)	SA-36	1
2	PLATE: 8.5" (216 mm)X 1.25" (32 mm) x 0.25" (6 mm)	SA-36	1
3	PLATE: 3" (76 mm)X 1.25" (32 mm) x 0.25" (6 mm)	SA-36	2
4	PLATE: 1.25" (32 mm)X 1.25" (32 mm) x 0.25" (6 mm)	SA-516-70N	2



STILL COLUMN DETAILS

STILL COLUMN PART LIST			
ITEM	DESCRIPTION	MATERIAL	QTY
1	PIPE 4" SCH 40	SA106-Gr.B	L=1399 mm
2	FLANGE:4" WN/RF CL150 SCH40	SA105	4
3	PLATE:4" (100 mm)X2" (50 mm)X0.25" (6 mm)	SA516-Gr70	1

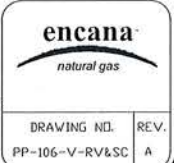
REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						

GENERAL NOTES:

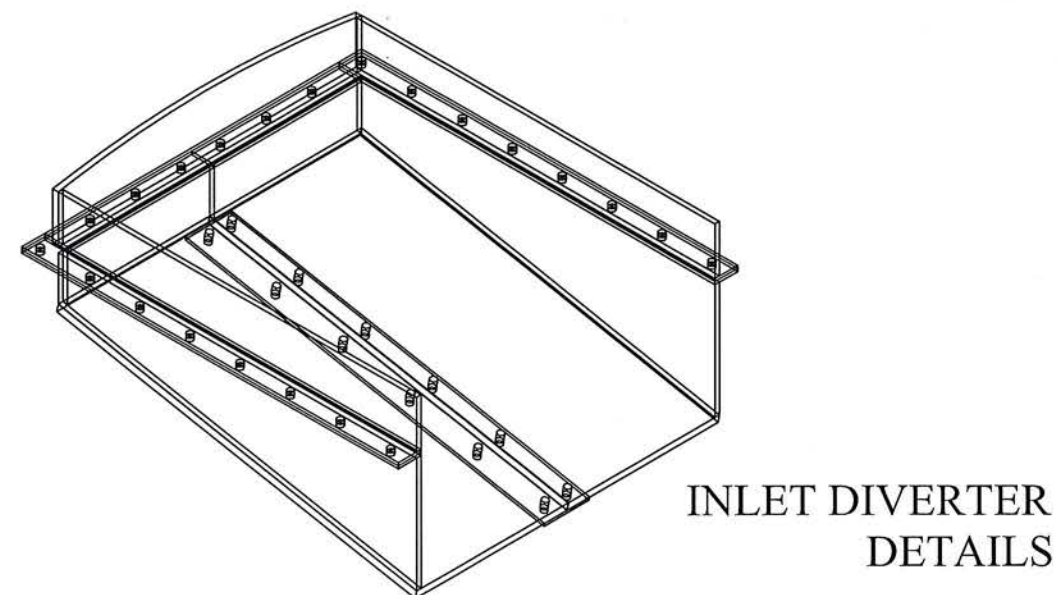
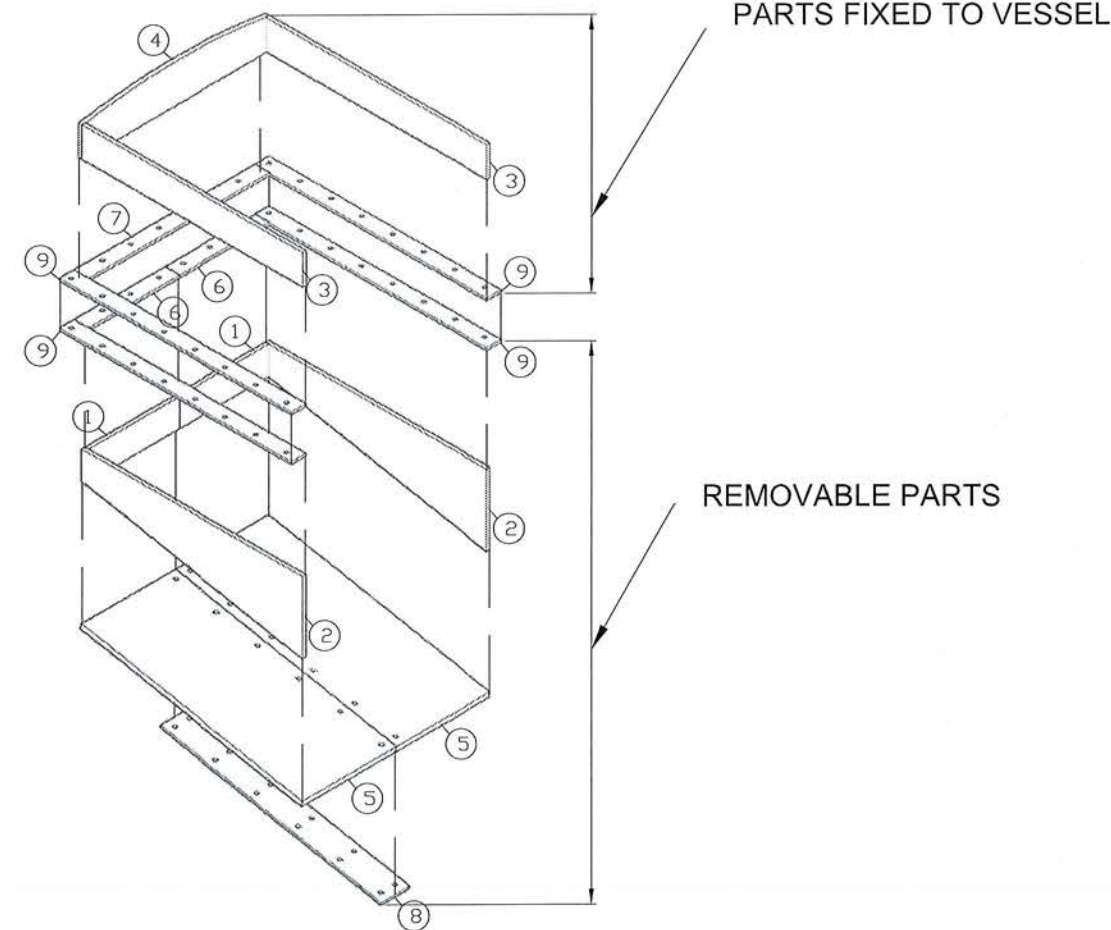
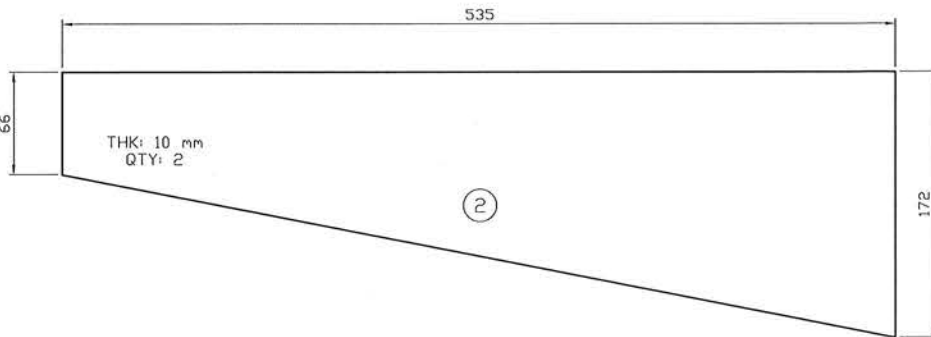
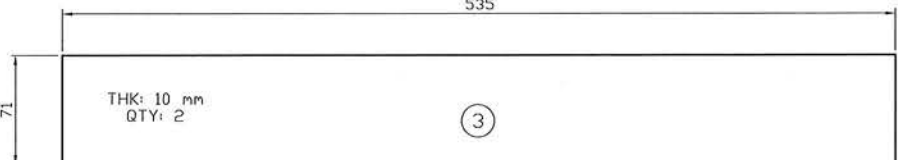
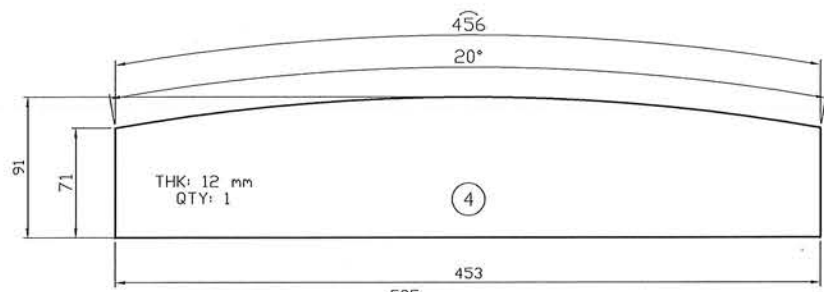
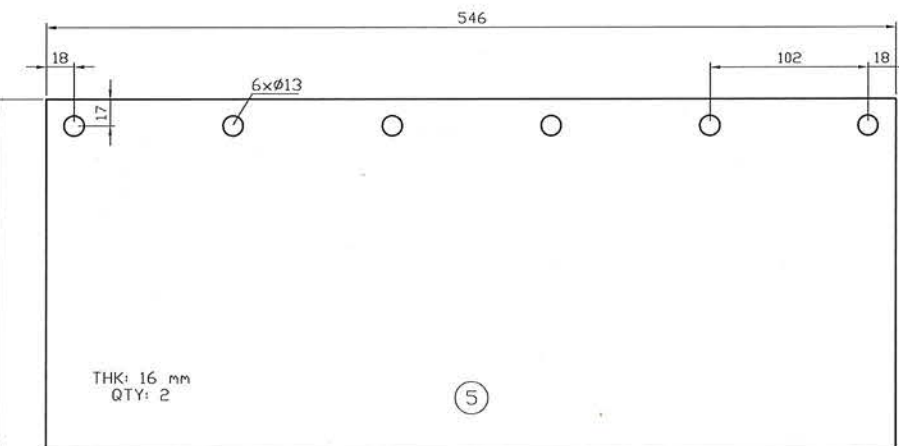
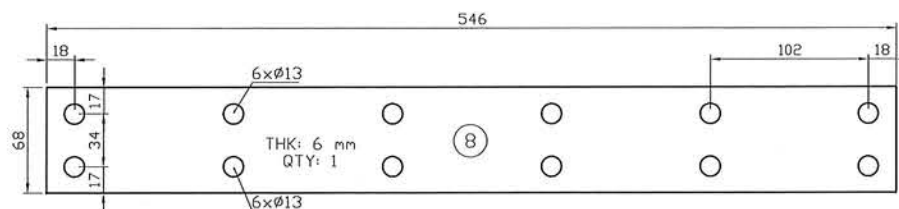
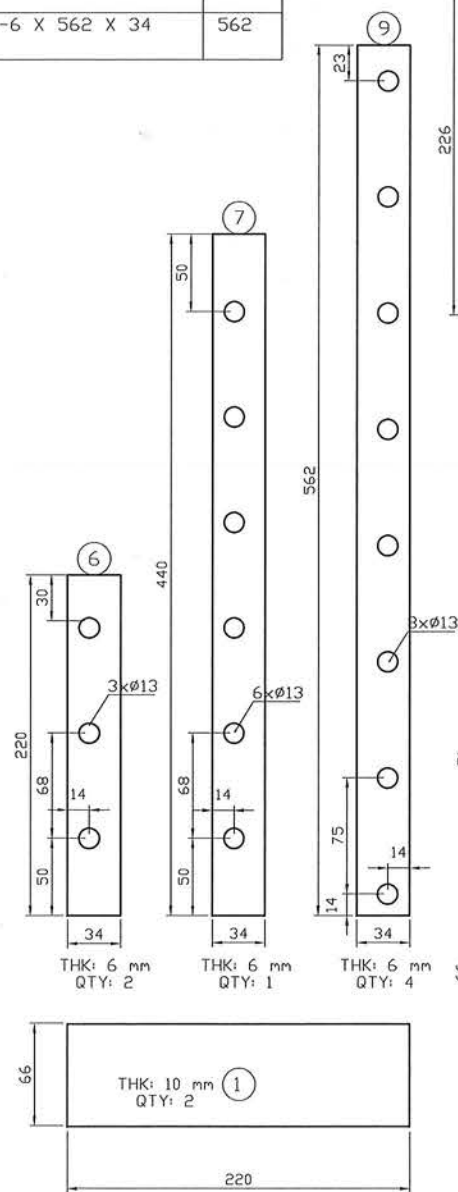


ENCANA CORPORATION
SWAN COMPRESSOR STATION
LSD: C-12-B/93-P-9
100bbl COMPRESSOR WASTE OIL STORAGE VESSEL
VORTEX BREAKER & STILL COLUMN DETAILS (V-900)

PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	03/12/12



BILL OF MATERIAL			
MARK	QTY	LONG ANNOTATION	LENGTH
1	2	PL-10 X 220 X 66	220
2	2	PL-10 X 535 X 172	535
3	2	PL-10 X 535 X 71 (SA-516-70N)	535
4	1	PL-12 X 453 X 91 (SA-516-70N)	453
5	2	PL-16 X 546 X 226	546
6	2	PL-6 X 220 X 34	220
7	1	PL-6 X 440 X 34	440
8	1	PL-6 X 546 X 68	546
9	4	PL-6 X 562 X 34	562



REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-						

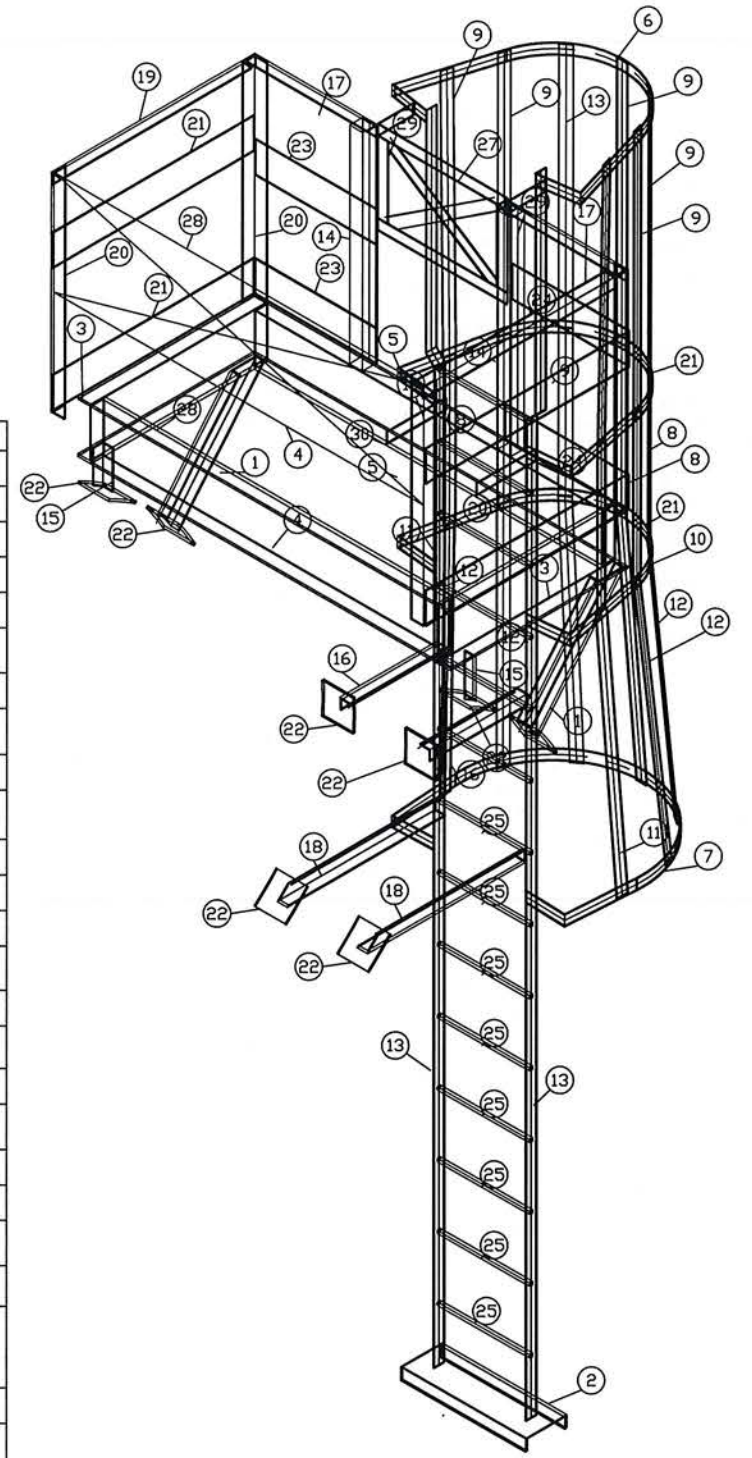
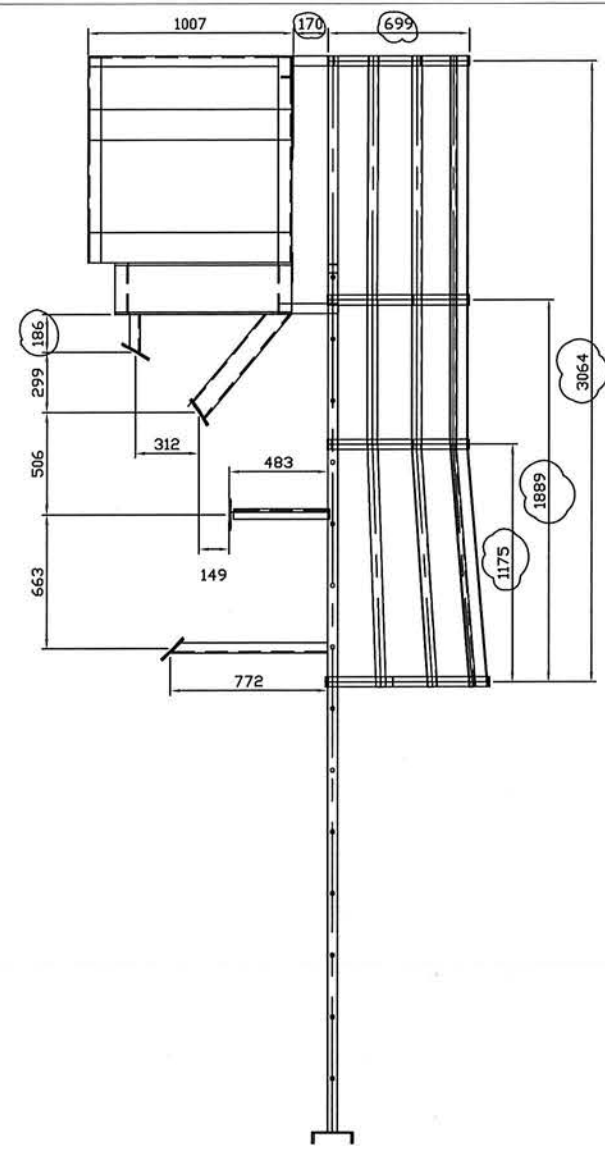
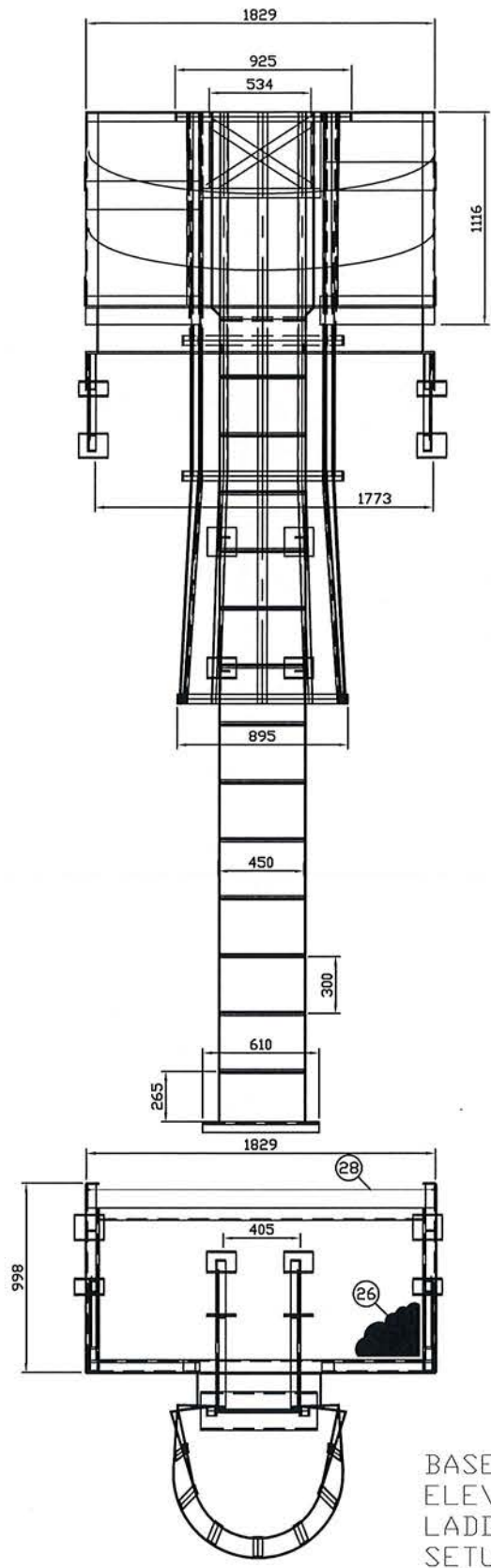
GENERAL NOTES:



ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 10000L COMPRESSOR WASTE OIL STORAGE VESSEL
 INLET DIVERTER DETAILS (V-900)

encana
 natural gas

PROPIPE VESSEL #:	JOB#	DRAWN	DATE	DRAWING NO.	REV.
PP-106	ENC-225	MB	20/02/13	PP-106-V-1B	B



BILL OF MATERIAL			
ITEM	LONG ANNOTATION	QTY	LENGTH
1	C100x9	2	594
2	C200X17	1	610
3	C250x23	2	866
4	C250x23	2	1699
5	FB50X6	2	2333
6	FB75X6	1	2649
7	FB75X6	1	2883
8	FB50X6	7	287
9	FB50X6	7	1206
10	FB50X6	1	1209
11	FB50X6	2	1201
12	FB50X6	4	1211
13	FB63X9	2	4788
14	HS64x64x6.4	2	1011
15	L51x51x6.4	2	196
16	L51x51x6.4	2	483
17	L51x51x6.4	2	594
18	L51x51x6.4	2	772
19	L51x51x6.4	2	934
20	L64x64x6.4	4	1016
21	PL-6 X 1402.60 X 150.00	4	1403
22	PL-10 X 152 X 152 (SA-516-70N)	8	152
23	PL-6 X 571.50 X 150.00	2	572
24	PL-6 X 598.25 X 150.00	2	598
25	RB20	13	450
26	SER. BAR GRATE 1-1/4"	1	1829x998
27	SAFETY GATE (LEFT HINGE)	1	
28	SAFETY CHAIN	2	
29	FB50X6	2	178
30	FB50X60	2	288

BASED ON THE GRADE ELEVATION, THE LENGTH OF LADDER AND CAGE WILL BE SETUP.

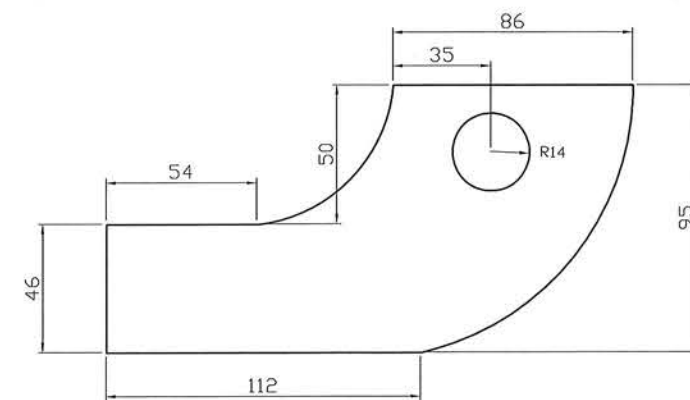
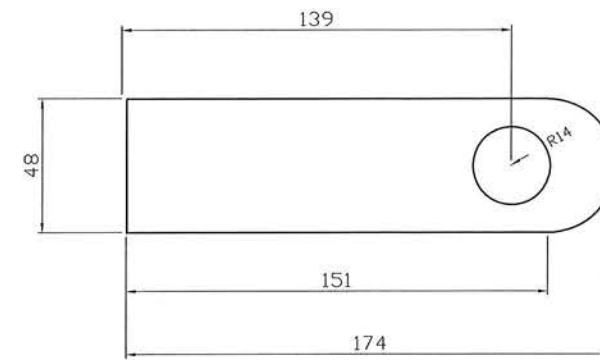
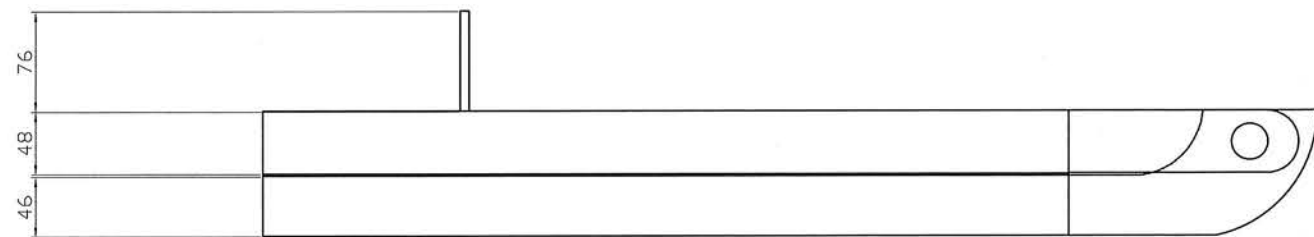
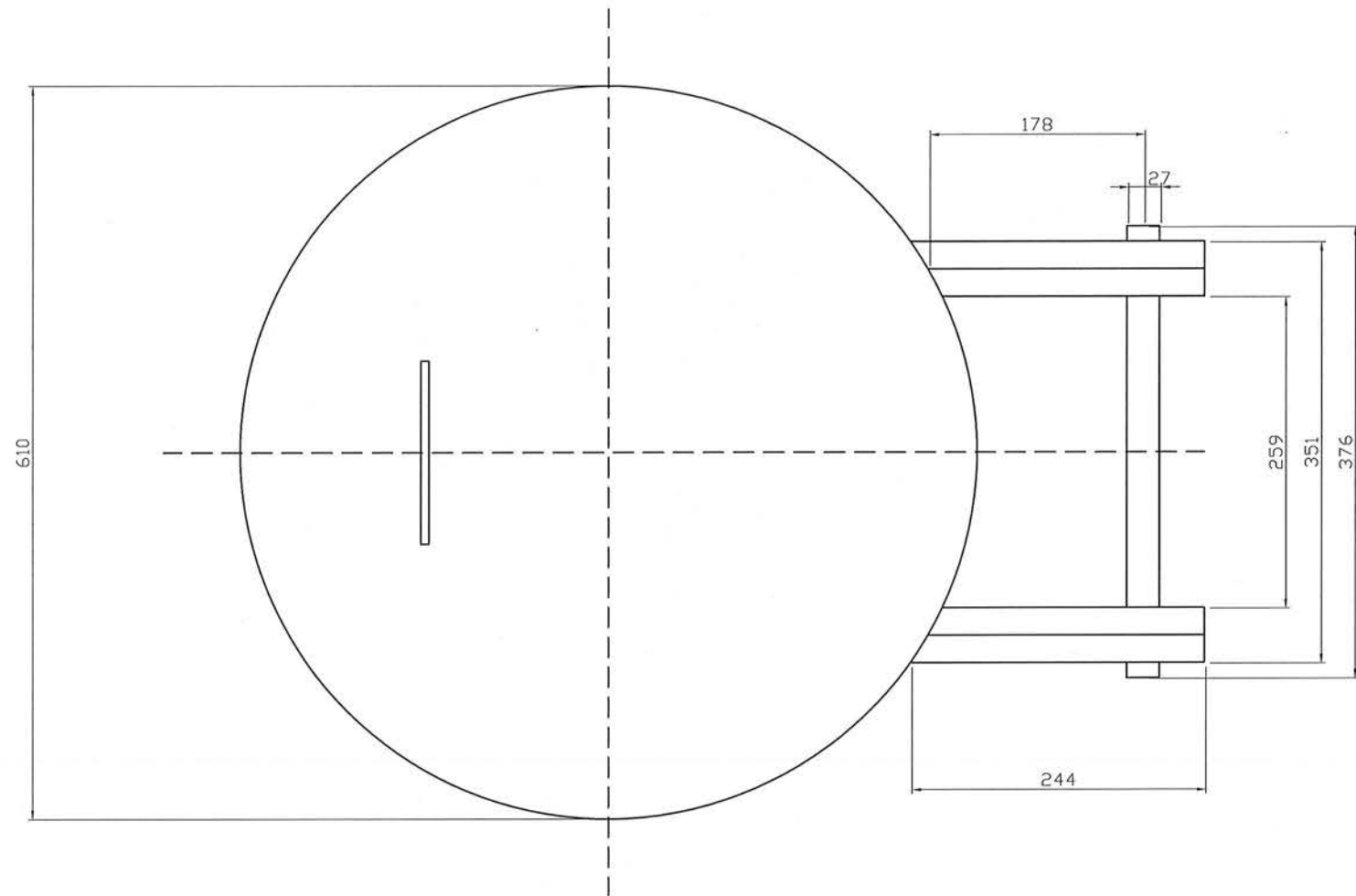
PLATFORM & LADDER DETAILS

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION	MB	14/02/13	-	-						

GENERAL NOTES:

ENCANA CORPORATION
SWAN COMPRESSOR STATION
LSD: c-12-B/93-P-9
1000psi COMPRESSOR WASTE OIL STORAGE VESSEL
PLATFORM & LADDER DETAILS (V-900)

PROPIPE VESSEL #: PP-106	JOB#: ENC-225	DRAWN: MB	DATE: 03/12/12	DRAWING NO. PP-106-V-P&L	REV. B
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MANWAY DETAILS

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-

REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD

GENERAL NOTES:

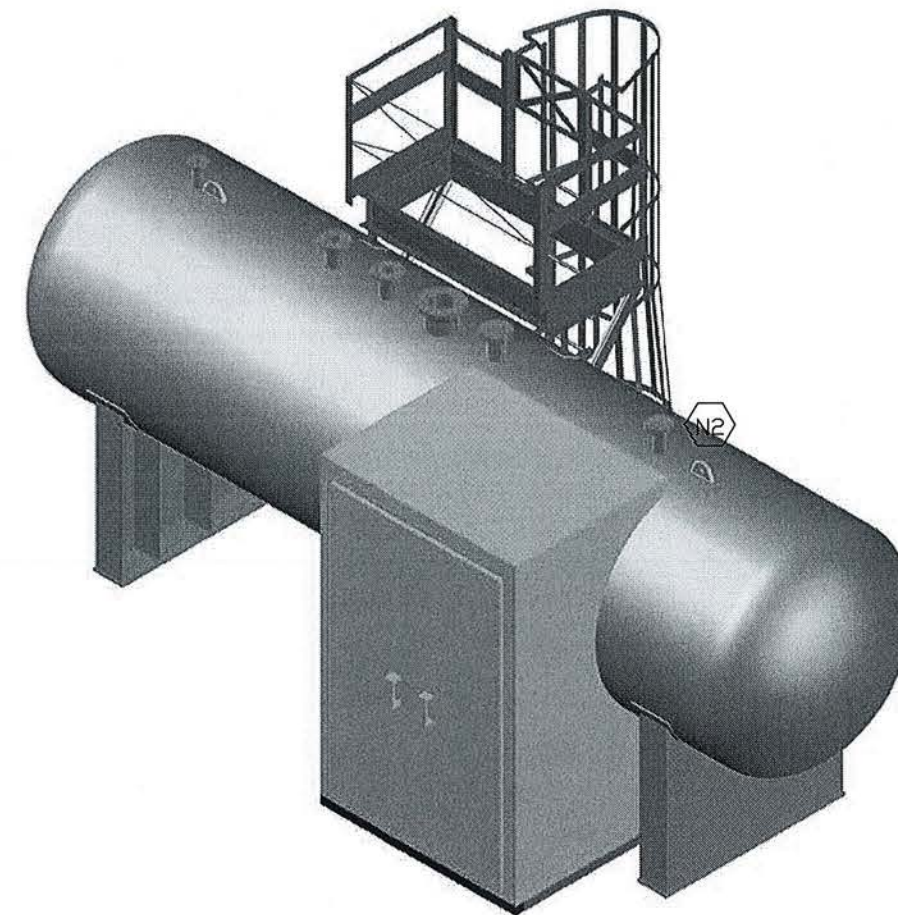
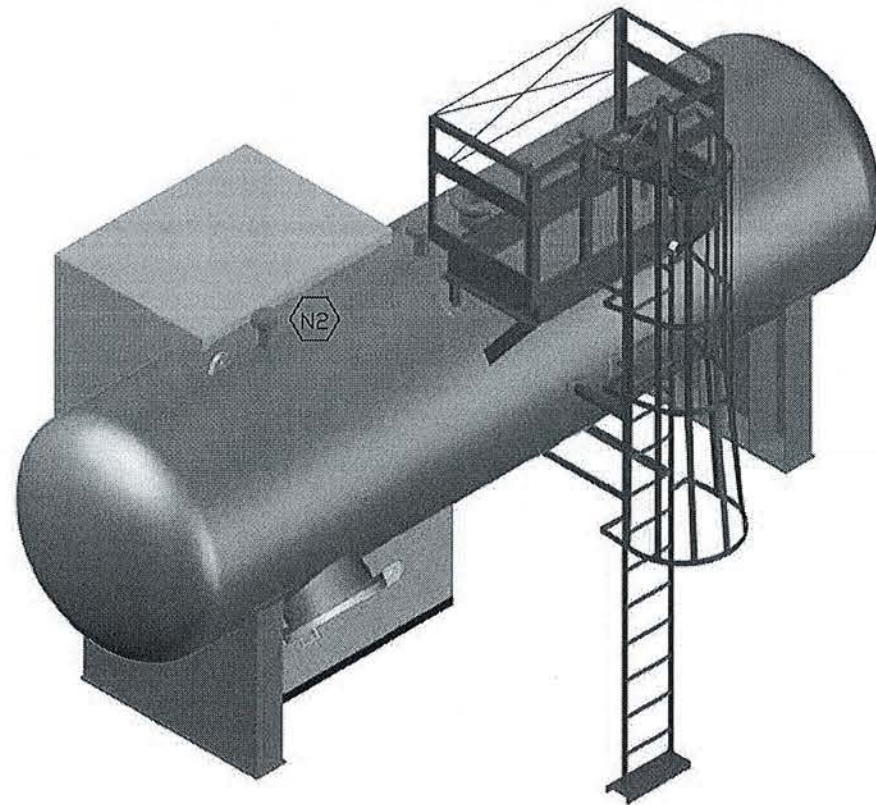


ENCANA CORPORATION
 SVAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100604 COMPRESSOR WASTE OIL STORAGE VESSEL
 MANWAY DETAILS (V-900)

PROPIPE VESSEL #:	JOB#	DRAWN	DATE
PP-106	ENC-225	MB	03/12/12



PERSPECTIVE VIEWS



REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD	REV	REVISION DESCRIPTION	BY	DATE	CHD	APPD
A	ISSUED FOR CONSTRUCTION	MB	03/12/12	-	-						
B	ISSUED FOR CONSTRUCTION	MB	20/02/13	-	-						

GENERAL NOTES:



ENCANA CORPORATION
 SWAN COMPRESSOR STATION
 LSD: c-12-B/93-P-9
 100000 COMPRESSOR WASTE OIL STORAGE
 VESSEL V-900

PROPIPE VESSEL #	JOB#	DRAWN	DATE
pp-106	ENC-225	MB	20/02/13

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 natural gas

DRAWING NO.	REV.
PP-106-V-3D	B