

To: EOG Resources Canada Ltd.
C/O Nimbus Projects Ltd.
#600, 630 – 6th Ave. SW
Calgary, AB T2P 0S8

File#: 2009-8035-50

Attn: Bill Corcoran

Date: May 20, 2010

Transmittal of Manufacturer's QC Documentation

Job Number	Legal Subdivision (LSD)
2009-8035-50 1 Q.C. Data Book	Sour Glycol Dehydration Unit
	LSD: d-36-I/94-O-14
	Location: Maxhamish, BC

Comments:

Magdi Ghobrial 
Manager – Engineering & Q.C.

Please sign and return one copy of this transmittal to verify receipt of the above listed data reports.

Received By: _____ Date: _____

SUM

ALCO GAS

W

150

150

0

150

-20

150

2009

2009-1982-01T

F-9011 231

FUEL GAS SCRUBBER

SA516-70MT 75

SA106P

25

0.0625

195

2009-8035-50

Certified By

ALCO  **GAS & OIL**
PRODUCTION EQUIPMENT LTD.
100% OWNED BY ALCO GAS & OIL PRODUCTION EQUIPMENT LIMITED PARTNERSHIP
Edmonton, Alberta, Canada

2127 psi at 110 °F
Max. Allowable Working Pressure

0 psi at 110 °F
Max. Allowable External Working Pressure

20 °F at 2127 psi
Minimum Design Metal Temperature

2010
Year Built

Serial Number

CRN

A No.

NAME

TAG

HEAD

C.A.

SHELL

HYDRO

2009-8035-50

Certified By

ALCO  **GAS & OIL**
PRODUCTION EQUIPMENT LTD.
OF ALCO GAS & OIL PRODUCTION EQUIPMENT LIMITED PARTNERSHIP
Edmonton, Alberta, Canada

2137 psi at 114°F
Max. Allowable Working Pressure

psi at °F
Max. Allowable External Working Pressure

°F at psi
Minimum Design Metal Temperature

Year Built

Serial Number

GRN

A No.

NAME

TAG

HEAD

C.A.

SHELL

HYDRO

Certified By

ALCO  **GAS & OIL**
PRODUCTION EQUIPMENT LTD.
Edmonton, Alberta, Canada

psi at °F
Max. Allowable Working Pressure

psi at °F
Max. Allowable External Working Pressure

°F at psi
Minimum Design Metal Temperature

Year Built

Serial Number

CRN

A No.

NAME

TAG

HEAD

SHELL

C.A.

HYDRO

Certified By

ALCO  **GAS & OIL**

PRODUCTION EQUIPMENT LTD.

GP of the ALCO GAS & OIL PRODUCTION EQUIPMENT LIMITED PARTNERSHIP

Edmonton, Alberta, Canada

2127 psi at 212°F
Max. Allowable Working Pressure

15 psi at 212°F
Max. Allowable External Working Pressure

20°F at 2127 psi
Minimum Design Metal Temperature

2010
Year Built

Serial Number

CRN

NAME

HEAD

SHELL

A No.

TAG

C.A.

HYDRO

2009-8035-50

Certified By

ALCO  **GAS & OIL**

PRODUCTION EQUIPMENT LTD.

GP of the ALCO GAS & OIL PRODUCTION EQUIPMENT LIMITED PARTNERSHIP

Edmonton, Alberta, Canada

2127 psi at 212°F
Max. Allowable Working Pressure

15 psi at 212°F
Max. Allowable External Working Pressure

20°F at 2127 psi
Minimum Design Metal Temperature

2010
Year Built

Serial Number

CRN

NAME

HEAD

SHELL

A No.

TAG

C.A.

HYDRO

ALCO

2010

2009-8035-05

1,250,000 BTU
REFROTHER

H-550

SA36 .257.375

SA36 .257.375

NTL

WATER TILL CHECK
FOR LEAKS

2009-8035-50

Certified By

ALCO  **GAS & OIL**

PRODUCTION EQUIPMENT LTD.
ALCOA CANADA

W
RT1
HT

2127 150

0 150

-20 2127

2010

2009-8035-06

V-0548.213

2009-8035-50

GLYCOL LEVEL
CONTROL CAGE

V-570

SA234WPR .766

SA106B 87.5

0.125

2766

HYDRO

2009.8035-50

Certified by

ALCO GAS OIL

PRODUCTION COMPANY

U

W
RTI
HT

250 200
0 200
-20 250

2010

2009-8035-07

V-0538 213

GLYCOL FLASH

TANK

V-580

SA516-70MT 28

SA516-70MT 375

0.125

HYDRO

325

2009-8035-56

Certified By

ALCO  **GAS & OIL**
PRODUCTION EQUIPMENT LTD.
Edmonton, Alberta, Canada

W
RTI
HT

250 200
0 200
20 250

2010

2009-8035-08

V-0537.213

0537296

Y RICH LEG

F-590

PARTICULATE FILTER

SA350LF2CL1 .657

SA516-70MT .75

SA106R 322

0.125

325

HYDRO

2009-8035-50

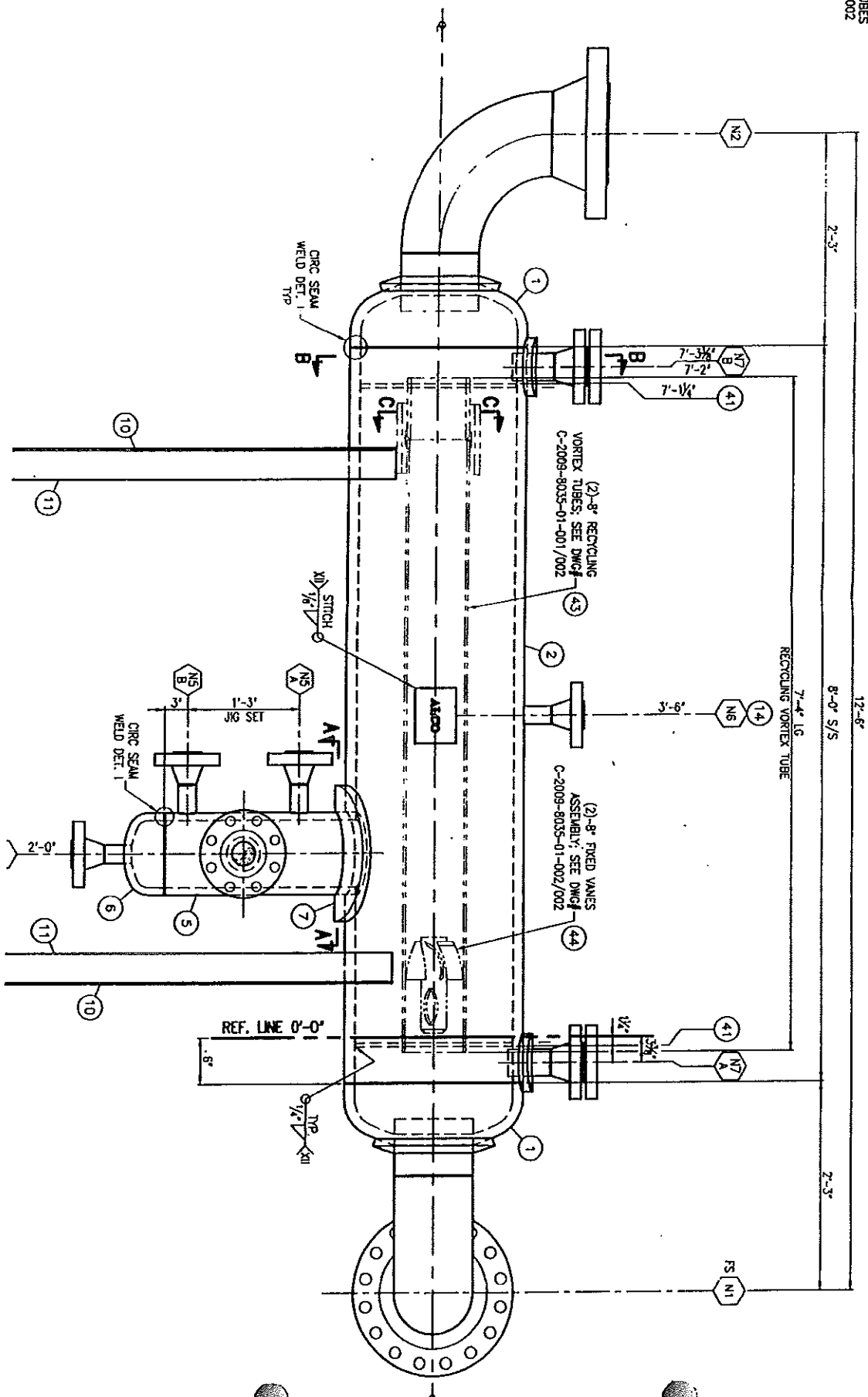
ALCO  GAS & OIL PRODUCTION EQUIPMENT LTD. EDMONTON, ALBERTA		A.G.A. RECOMMENDATIONS GUARANTEED		SER. NO. 1001-527
MAX. INT. DIA. 1.5	UPSTREAM 1.5	MAX. ORIFICE SIZE 1.5	DOWNSTREAM 1.5	INSPECTED BY ALCO
PIPE SIZE 1.5	SCH. 1.5	FOR W/D 1.5	DATE 1.5	
A.G.A. CASE 1.5	FOR W/D 1.5			
DRWG. NO. 1.5	DATE 1.5			

2009-8035-10
 2009-8035-50

SECTION 'C-C'
35 ORIENTATION DETAIL

(2) READ - MP.

RECYCLING VORTEX TUBES
J# C-2009-8035-001-002



CONTRACTED OUT TO: BRIMSTONE

DATE FEB 1 2010

5203-75 Street, Edmonton, Alberta, Canada T6E 5S5 • Phone: (780) 465-9061 • Fax: (780) 466-8110

POST WELD HEAT TREATMENT INSTRUCTIONS

#	JOB	NUMBER	HEAD	SHELL	NOM. DIA.	LENGTH	ITEM DESCRIPTION	WEIGHT IN LBS.	QC APPR.
1	2009-8032-06	.280"	.375"	16"OD	7'-7"	GLYCOL FLASH TANK	630		
1	2009-8032-07	.625"	.280"	6"	5'-1"	GLYCOL PARTICULATE FILTER	170		
1	2009-8032-16	.280"	.375"	16"OD	7'-7"	GLYCOL FLASH TANK	630		
1	2009-8032-17	.625"	.280"	6"	5'-1"	GLYCOL PARTICULATE FILTER	170		
1	2009-8035-01	1.31/.875"	1.375"	24"OD	12'-6"	IN-LINE RECYCLE SEPARATOR	5,870		
1	2009-8035-06	.875"	.875"	8"	2'-11"	GLYCOL CONTROL CAGE	230		
1	2009-8035-07	.280"	.375"	20"OD	10'-1"	GLYCOL FLASH TANK	970		
1	2009-8035-08	.750"	.322"	8"	5'-3"	RICH TEG PARTICULATE FILTER	260		
1	2009-8034-50	PIPE	.500"	8"	3'-2"	ISO#1-IGAS INLET TO V-423	483		
1	2009-8034-50	PIPE	.344"	2"	3'-7"	ISO#3-1 FUEL GAS E-429 TS INLET	40		
10	TOTAL NUMBER								
	TOTAL WEIGHT IN LBS.								9,453

TEMPERATURE: TO BE RAISED FROM 800°F TO 1150°F AT A MAXIMUM RATE OF 290°F/HR. DIVIDED BY THE MAXIMUM METAL THICKNESS WHEN GREATER THAN ONE INCH THICK.
 400°F/HR. DIVIDED BY THE MAXIMUM METAL THICKNESS WHEN GREATER THAN ONE INCH THICK.

TEMPERATURE: BE HELD AT 1150°F, ±25°F FOR 90 MINUTES.

TEMPERATURE: TO BE LOWERED FROM 1150°F, ±25°F AT A MAXIMUM RATE OF 363°F/HR. DIVIDED BY THE MAXIMUM THICKNESS OF THE MATERIAL. WHEN THE MATERIAL THICKNESS EXCEEDS 1 INCH.

THE THERMOCOUPLE ATTACHMENTS: THERMOCOUPLES ARE REQUIRED AT THE TOP, MIDDLE AND BOTTOM. SEE ATTACHED DRAWINGS FOR SPECIFIC LOCATIONS OF THERMOCOUPLE ATTACHMENTS (WHEN APPLICABLE).

ALL THERMOCOUPLES ARE TO BE ATTACHED BY FLASH WELDING ONLY.

ENSURE THAT ALL ALCO JOB NUMBERS ARE IDENTIFIED ON ALL HEAT CHARTS.

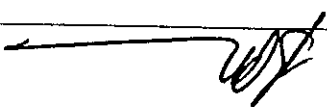
POST WELD HEAT TREATMENT IS TO BE DONE AS PER ASME CODE, SECTION VIII-1, Para. UCS-56.

THE VESSEL AND PARTS THEREOF SHALL BE PROPERLY SUPPORTED AND PROTECTED FROM DIRECT FLAME IMPINGEMENT. ALL GASKET SURFACES AND THREADED CONNECTIONS SHALL BE COATED WITH A SUITABLE PROTECTIVE MATERIAL.

ALCO ORDER NO. 122 391

LOAD NO. FEB#1

COPIES OF HEAT CHART REQUIRED BY ALCO QC DEPARTMENT 1

AUTHORIZED BY: 

RF 11 FCI	MANWAY W/ BLIND	DAVT	4.0" THK	13.0"	15.11"	IV	3/8"	3/8"	IT# 25.26.27.28
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DESIGN DATA									
M.A.W.P.	2127 PSIG @ 145°F	M.D.M.T.	-20°F @ 2127 PSIG	CORROSION ALLOWANCE:	1/8"	RADIOGRAPHY:	UW-11(c)	LONG. JOINT EFF.:	100%
P.W.H.T.	YES, 1150°F FOR 2 HRS. 30 MIN	HEADS:	SA-516-70N (3.125" MIN.)	SHELL:	SA-516-70N (3 1/4" NOM. THK)	WELD FITTINGS:	SA-234-WPB	STUDS:	SA-193-B7M
NUTS:	SA-194-2HM	MISC. PLATE	SA-36	SHIPPING WT.:	89,400	TESTING WT.:	124,600 lb. (FULL OF WATER)	CAPACITY:	564 ft ³
SURFACE PREPARATION: COMMERCIAL BLAST TO SSPC-SP6									
PAINT: PRIMER: 1.5 TO 2.0 MIL DFT CLOVERDALE #T-101 ZINC PHOSPHATE PRIMER.									
FINISH: 1.5 TO 2.5 MIL DFT CLOVERDALE #111 SERIES MARINE ENAMEL WARM GREY.									
INSULATION: NONE									
C.R.N.:									
SERIAL NO.: 2009-8035-02									
NOTES									

- ALL BOLTS TO STRADDLE NATURAL VESSEL CENTER LINES.
- ALL REPAIRS TO HAVE 1/4" NPT WEEPHOLE FILLED WITH SILICONE.
- PROTECT ALL OPENINGS FOR SHIPMENT.
- IMPACT TEST:
- MATERIAL IMPACT TEST REQUIRED FOR HEADS & SHELL.
- FLANGES EXEMPT PER UCS-66(c).
- NOZZLES EXEMPT PER UG-20(1).
- PRODUCTION IMPACT TEST REQUIRED @ -20°F TO MEET AVERAGE CHARPY TOUGHNESS OF (3) 18 FT-LB MIN. (1) 12 FT-LB.
- FORGINGS EXEMPT PER UCS-66(g).
- STUDS AND NUTS EXEMPT PER FIG. UCS-66 NOTE (c).
- EXTERNAL LOADS PER UG-22 ARE NOT APPLICABLE.
- ALL INTERNAL & EXTERNAL NOZZLE CORNERS ARE TO BE CHAMFERED TO 1/16" OR ROUNDED TO 1/8" RADIUS.
- ALCO STANDARD FABRICATION TOLERANCES (DWG #A-4540).
- ALCO STANDARD JOINT DESIGN & WELD TOLERANCE (DWG #B-2007-WELD JOINT-001).
- VESSEL TO BE MARKED: "P.W.H.T.-DO NOT WELD".
- VESSEL TO BE REGISTERED IN ALBERTA, B.C. & SASKATCHEWAN.

U

C.R.N. STAMP

WITH MANWAY COVER

1 VESSEL

ONE (1) UNIT REQUIRED

REVISOR PREVIOUS ISSUE

QUALITY CONTROL COPY

JAN 14 2010

REVISED DRAWING

HT

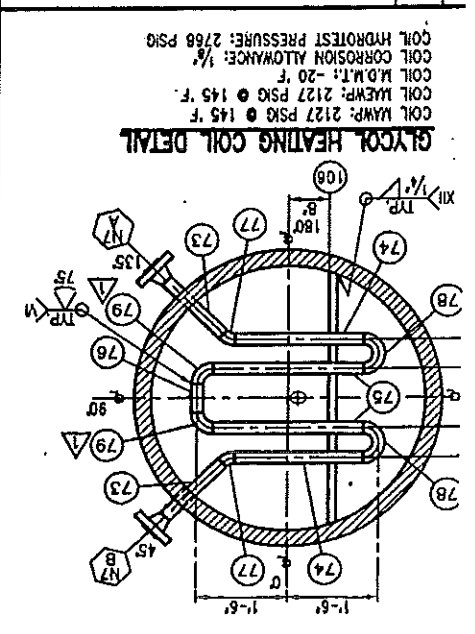
RT-1

W

SEC. VII, DIV. 1, 2007 EDITION, 2008a ADDENDA

UW-11(c)

DWG/SHOP ORDER: D-2009-8035-02-001/002	REV. 2
CUSTOMER: EOG RESOURCES CANADA INC. & NIMBUS PROJECTS LTD	
LOCATION: MAXHAIISH	
L.S.D.: D-36-1/93-0-14	
54" I.D. x 34'-0" s/s @ 2127 PSIG + 1/8" C.A.	
3-PHASE TEG CONTACTOR w/ 8 TRAYS @ 24" SPACING	
TAG # V-510	
ALCO PRODUCTION EQUIPMENT LTD. GAS & OIL	
CHKD: KEW	DATE: 2009/12/03
SCALE: 1/2" = 1'-0"	DRAWN: J.B. WELCH



CALCULATION REVISIONS									
TE	REV	BY	DATE	DESCRIPTION	ISSUED FOR CONSTRUCTION	REV	BY	DATE	DESCRIPTION
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLES N3/N7, TAILING LUG & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08
10	JBW	ME	08/10/08	REV. NOZZLE N7/B, HEATING COIL & WELD		10	JBW	ME	08/10/08

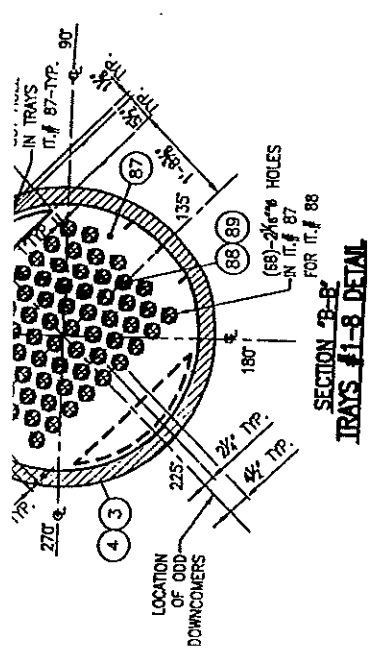
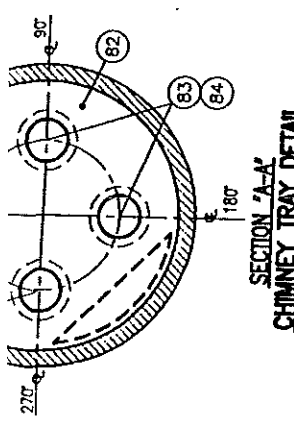
GLYCOL HEATING COIL DETAIL

COL. M.A.W.P.: 2127 PSIG @ 145°F

COL. M.D.M.T.: -20°F

COL. CORROSION ALLOWANCE: 1/8"

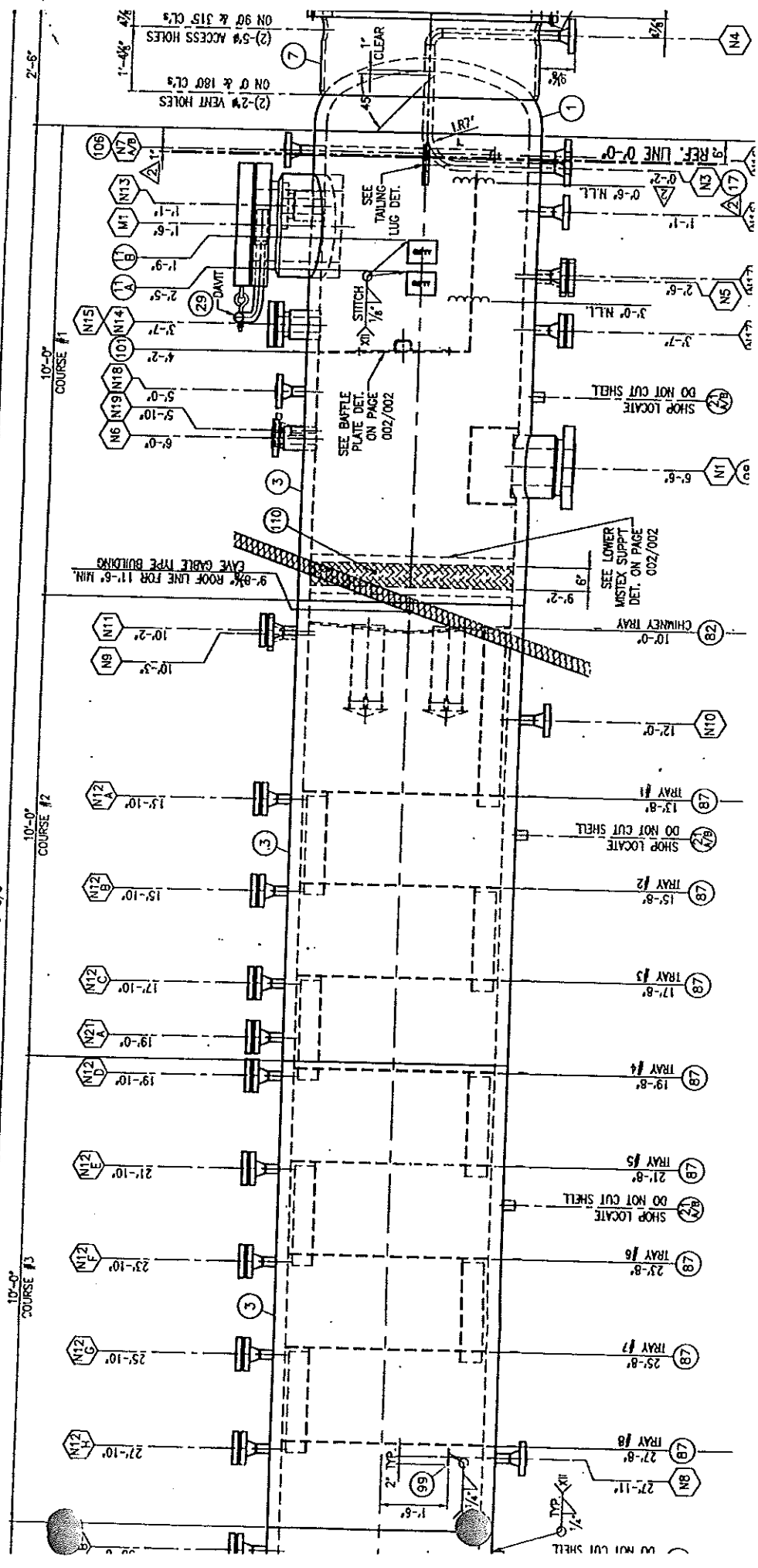
COL. HYDROTEST PRESSURE: 2766 PSIG

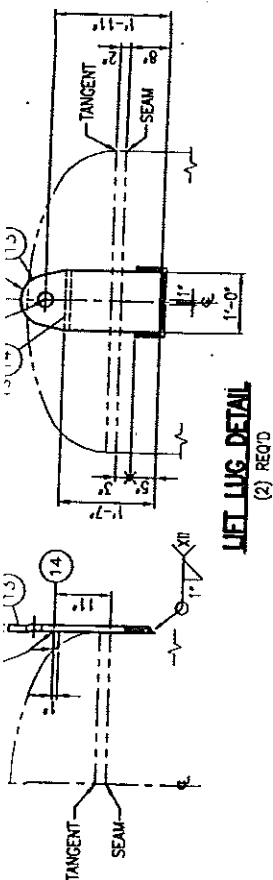
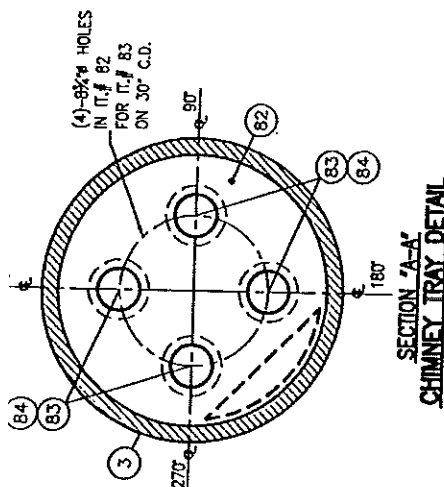
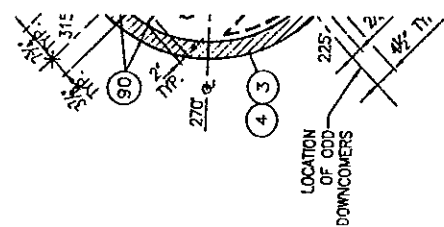


N12 A-H	1
N13	
N14	
N15	
N16 1/8	
N17 1/8	
N18	
N19	
N20	
N21 1/8	
M1	

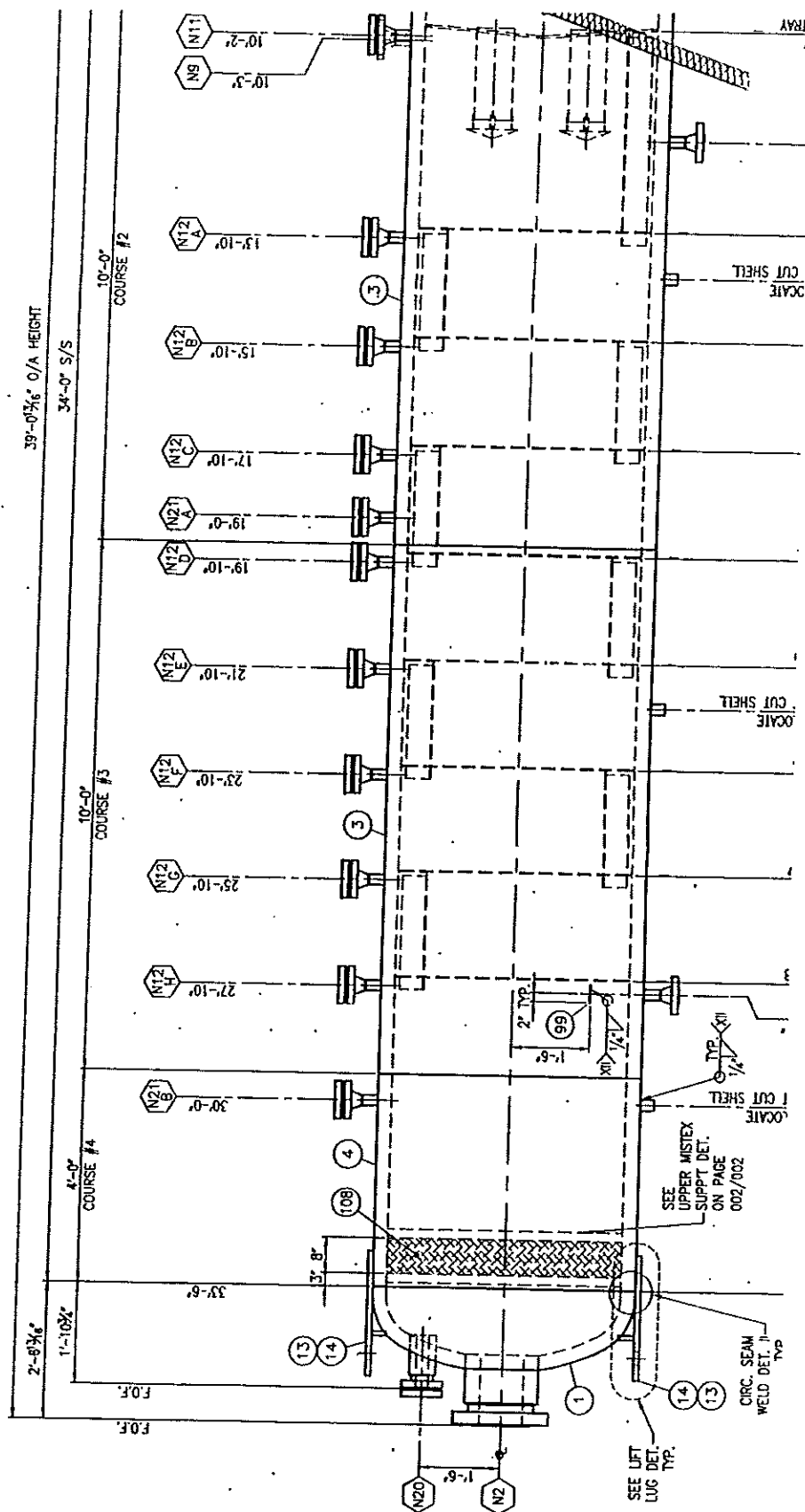
39'-0 3/4" O/A HEIGHT

34'-0" S/S





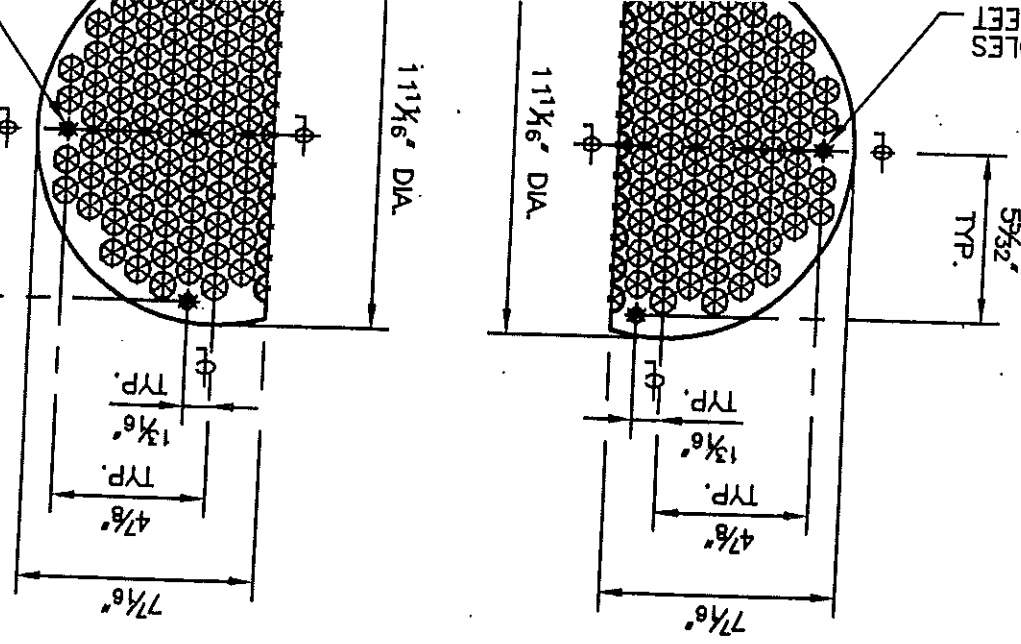
39'-0 1/4" O/A HEIGHT
34'-0" S/S



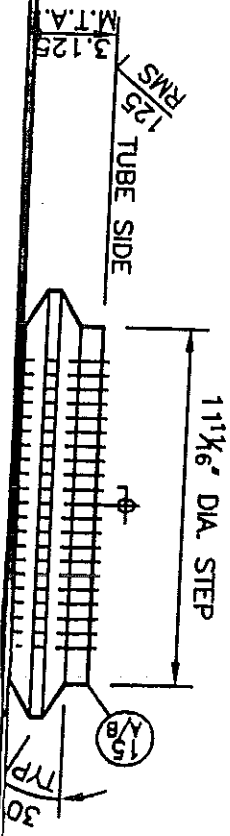
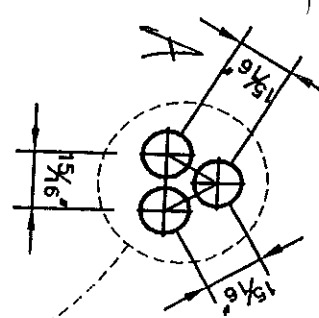
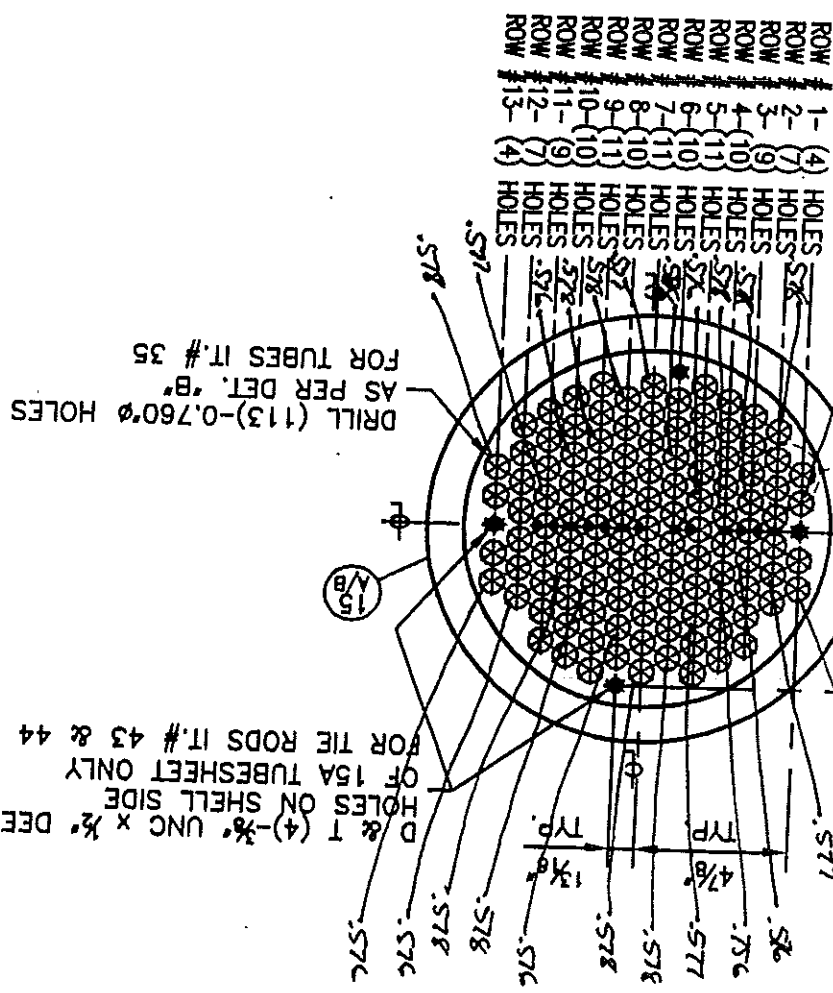
8035-03

B

DRILL (3)- $\frac{7}{16}$ " HOLES TO MATCH TUBESHEET



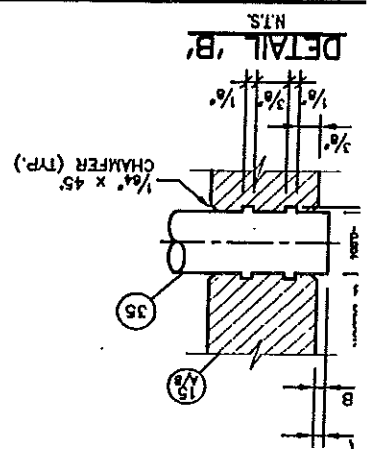
TUBESHEET DETAIL IT.# 15A/B
 RADIUS TO OUTERMOST TUBE CENTER = 5.22"
 OTL = 11.22"
 SCALE: 2"=1'-0"



REV. 0		DWC/SHOP ORDER: D-2009-8035-03-001/001	
CUSTOMER: EOG RESOURCES CANADA INC. % NIMBUS PROJECTS LTD.		LOCATION: MAXHAMISH	
L.S.D.: D-36-1/84-0-14		TAG: E-520	
NPS 14 x 10'-0" 15/16" 2127 PSIG + 1/8" C.A.		12-120 NEN GAS/TEG HEAT EXCHANGER	
ALCO PRODUCTION EQUIPMENT LTD.		ALCO GAS & OIL	
DATE: 2009-12-04		SCALE: 1"=1'-0"	
DRAWN: RWM		CHK'D: KEY	

REVISIONS	
DESCRIPTION	ISSUED FOR CONSTRUCTION
CALCULATION REVISIONS	
DESCRIPTION	ISSUED FOR CONSTRUCTION

ONE (1) UNIT REQUIRED	
1 piece	
C.R.N. STAMP	
DATE: DEC 2 2009	
FOR CONSTRUCTION	
SHOP	
TUBE SIDE	
UW-11(a) SEC. VM. DM. 1, 2007 EDITION, 2006A ADDENDA	
SHELL SIDE	
UW-11(a) SEC. VM. DM. 1, 2007 EDITION, 2006A ADDENDA	



1. ALL BOLTS TO STRADDLE NATURAL VESSEL CENTER LINES.
2. ALL REPADS TO HAVE 1/4" NPT WEEPHOLE FILLED WITH SILICONE.
3. PROTECT ALL OPENINGS FOR SHIPMENT.
4. IMPACT TEST:
5. EXEMPT PER UG-20(i).
6. FLANGES EXEMPT PER UCS-66(c).
7. STUDS AND NUTS EXEMPT PER UCS-66(c).
8. TUBESHEET EXEMPT PER UCS-66(a) & UG-20(i).
9. EXTERNAL LOADS PER UG-22 ARE NOT APPLICABLE.
10. OR ROUND TO 1/4" RADIUS.
11. ALCO STANDARD FABRICATION TOLERANCES (DWG #A-4540).
12. EXCHANGER TO BE MARKED: "P.W.H.T. DO NOT WELD."
13. OPERATING CONDITIONS, RE-EVALUATE BEFORE OPERATING AT DIFFERENT CONDITIONS.
14. EXCHANGER TO BE MARKED: "THIS HEAT EXCHANGER IS DESIGNED FOR SPECIFIC JOINT-001."
15. ALCO STANDARD JOINT DESIGN & WELD TOLERANCE (DWG #B-2007-WELD JOINT-001).
16. VESSEL TO BE REGISTERED IN ALBERTA, BRITISH COLUMBIA & SASKATCHEWAN.

NOTES	
C.R.N.:	208,859 BTU/Hr.
DUTY:	214.9 ft ²
HEATING SURFACE:	2009-8035-03
SERIAL NO.:	2009-8035-03
INSULATION: NONE	
FINISH: 1.5-2.5 mils DFT CLOVERDALE SERIES 111 WARM GREY (#20-F-34) MARINE ENAMEL	
PAINT: PRIMER: 1.5-2.5 mils DFT CLOVERDALE #7-101 ZINC PHOSPHATE OVERALL	
SURFACE PREPARATION: COMMERCIAL SANDBLAST TO SSPC-SP6	
TESTING WT.:	4.605 lbs. (FULL OF WATER)
SHIPPING WT.:	4.110 lbs. (EMPTY)
CAPACITY:	1.5, 4.0 H ₂ O / S.S.; 3.9 H ₂
MISC. PLATE:	SA-36
NUTS:	-
STUDS:	-
TUBES:	SA-179 12 BWG (0.109) MIN. SMLS
NOZZLES:	SA-106-B
FLANGES:	SA-105N
HEADS:	N/A
P.W.H.T.:	YES: 1150F ±25F FOR 1 HR 15 MIN.
RADIOGRAPHY:	UW-11(a)
LONGT. JOINT EFF.:	100% (SMLS)
TEST:	IS & S.S.; 2766 PSIG

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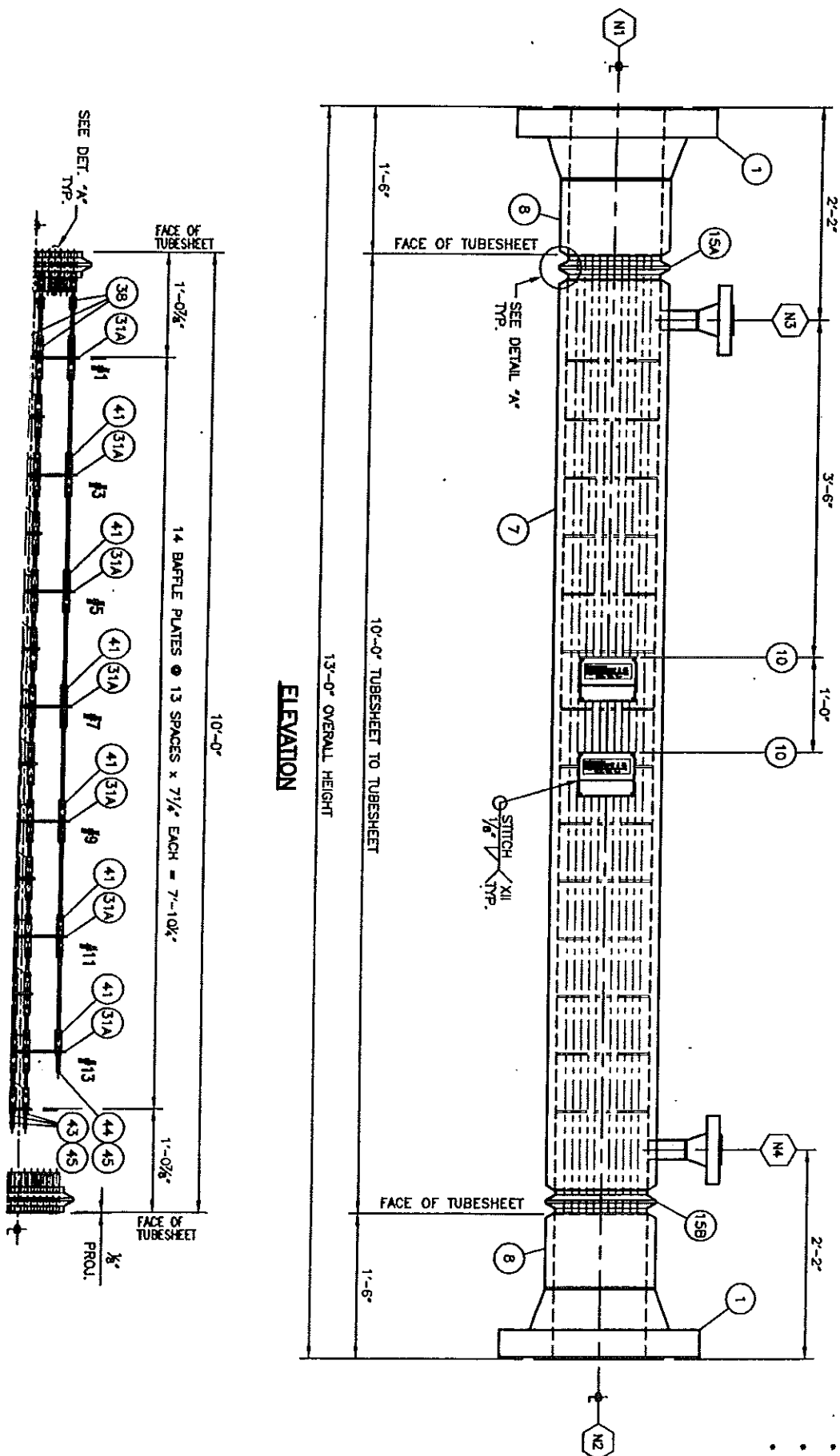
FOR 3/4" TUBES, 96% OF TUBESHEET HOLE DIAMETERS MUST BE WITHIN A TOLERANCE OF 0.002. REMAINDER MAY NOT EXCEED A TOLERANCE OF 0.01".

AS PER TEMA RC9-7.41.

THE INSIDE EDGES OF TUBE HOLES IN TUBESHEET(S) SHALL BE FREE OF BURRS AND INTERNAL SURFACES SHALL BE GIVEN A WORKMANLIKE FINISH.

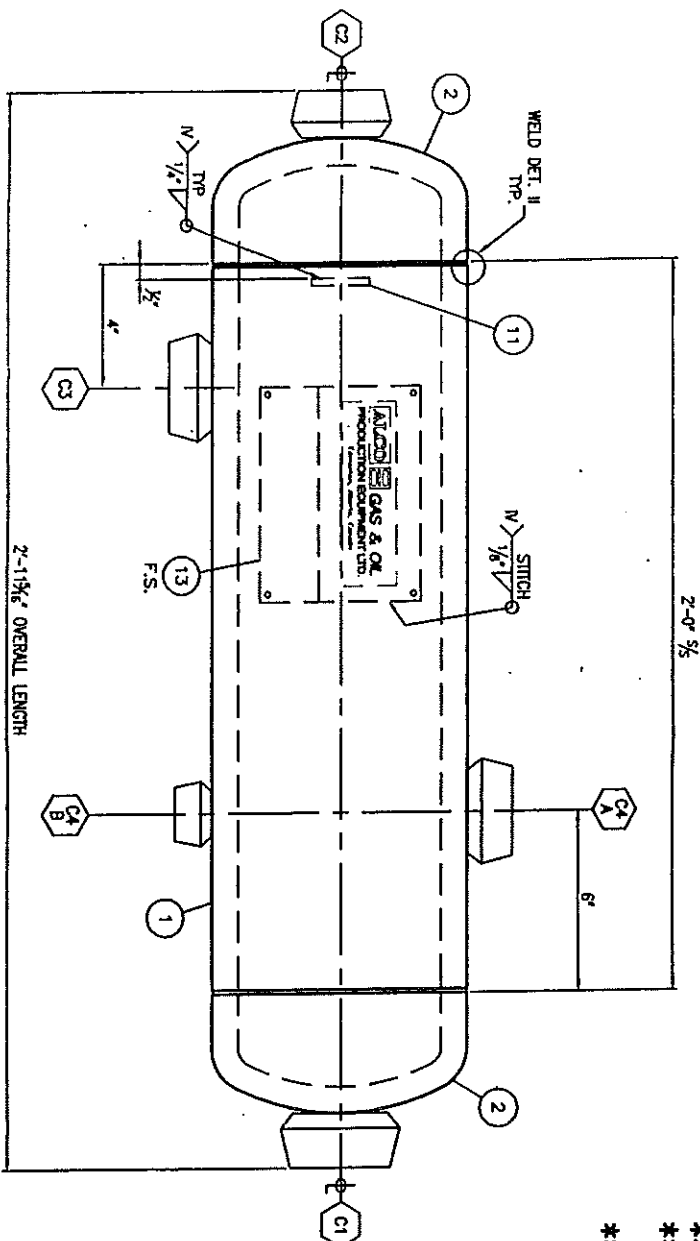
		RFVN	GLYCOL
N3	2	1500	
N4	2	1500	RFVN

MATE
• CAN
• MA
• MA
• FOI
• FIT
• BO
• FO
• WE
• 1%
• ON
• UN
• ON
• PE



C4A	1 1/2	6000	T.O.L	LEVEL GAUGE/GLYCOL INLET
C4B	3/4	6000	T	LEVEL GAUGE

* MRD ON 2009-8035-06-01



ELEVATION



SEC. VIII, DIV. 1, 2007 ED., 2009a ADD.

HT

MR0175 / ISO 15156

ONLY:

CEED 22HRC, AND MATERIALS SHALL
) AND TEMPERED, OR "NORMALIZED.

REV	DATE	DESCRIPTION
0	07/11	ISSUED FOR CONSTRUCTION
1	07/11	ISSUED FOR CONSTRUCTION

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION
**1	1	NPS 8, SCH. XXH SMLS PIPE x 2'-0" LG (BBE)
**2	2	NPS 8, SCH. XXH BW CAP
**3	1	NPS 2-CL6000 NPT THREDOLET (FLAT)
**4	1	NPS 1 1/2-CL6000 NPT THREDOLET (FLAT)
**5	1	NPS 1 1/2-CL6000 NPT THREDOLET (FLAT)
**6	1	NPS 1 1/2-CL6000 NPT THREDOLET (8-6)
**7	2	NPS 3/4-CL6000 NPT THREDOLET (10-3)
**8	1	NPS 3/4-CL6000 NPT THREDOLET (10-3)
**9	1	NPS 3/4-CL6000 NPT THREDOLET (10-3)
**10	1	FLATBAR: 2' x 1/4" THK. x 63/4" LG. (TRIM)
**11	1	ALCO STD. NAMEPLATE W/ BRACKET
**12	1	ALCO STD. NAMEPLATE W/ BRACKET
**13	1	ALCO STD. NAMEPLATE W/ BRACKET
**14	1	ALCO STD. NAMEPLATE W/ BRACKET
**15	1	ALCO STD. NAMEPLATE W/ BRACKET

DESIGN DATA

CODE:	SECTION VIII DIV. 1, 2007 EDITION, 2009a ADDENDUM
MAWP:	2127 PSIG @ 150F
MAEP:	0 PSIG @ 150F
RADIOGRAPHY:	UW-11(g)
P.W.H.T.:	1150F ±25F FOR 1 HR
HEADS:	SA-234-WPB (0.875" NOM. THK.)
SHELL:	SA-106-B (0.875" NOM. THK.)
WELD FITTINGS:	-
COUPLINGS (T.O.L.):	SA-105N
INTERVALS:	CSA-G40.21-44W
SHIPPING WT.:	230
TESTING WT.:	269
SURFACE PREPARATION:	COMMERCIAL BLAST TO SSPC-SP-10
PAINT:	PRIMER: 1.5 TO 2.0 MIL DFT CLOVERDALE #1-10
INSULATION:	NONE
C.R.N.:	
SERIAL NO.:	

NOTES

1. PROTECT ALL OPENINGS FOR SHIPMENT.
2. IMPACT TEST EXEMPT PER UG-20(G).
3. ALSO STANDARD FABRICATION TOLERANCES (DWG #A-4540).
4. ALSO STANDARD JOINT DESIGN & WELD TOLERANCE (DWG #B-4540).
5. VESSEL TO BE MARKED P.W.H.T. DO NOT WELD.
6. VESSEL TO BE REGISTERED IN ALBERTA, B.C. & SASKATCHEWAN.

CONTRACTED OUT TO: BRIMSTONE

DATE FEB 1 2010

5203-75 Street, Edmonton, Alberta, Canada T6E 5S5 • Phone: (780) 465-9061 • Fax: (780) 466-8110

POST WELD HEAT TREATMENT INSTRUCTIONS

#	JOB	NUMBER	HEAD	SHELL	NOM. DIA.	LENGTH	ITEM DESCRIPTION	WEIGHT IN LBS.	QC APPR.
1	2009-8032-06	.280"	.375"	16"OD	7'-7"	GLYCOL FLASH TANK	630	✓	
1	2009-8032-07	.625"	.280"	6"	5'-1"	GLYCOL PARTICULATE FILTER	170	✓	
1	2009-8032-16	.280"	.375"	16"OD	7'-7"	GLYCOL FLASH TANK	630	✓	
1	2009-8032-17	.625"	.280"	6"	5'-1"	GLYCOL PARTICULATE FILTER	170	✓	
1	2009-8035-01	1.31/.875"	1.375"	24"OD	12'-6"	IN-LINE RECYCLE SEPARATOR	5,870	✓	
1	2009-8035-06	.875"	.875"	8"	2'-11"	GLYCOL CONTROL CAGE	230	✓	
1	2009-8035-07	.280"	.375"	20"OD	10'-1"	GLYCOL FLASH TANK	970	✓	
1	2009-8035-08	.750"	.322"	8"	5'-3"	RICH TEG PARTICULATE FILTER	260	✓	
1	2009-8034-50	PIPE	.500"	8"	3'-2"	ISO#1-1GAS INLET TO V-423	483	✓	
1	2009-8034-50	PIPE	.344"	2"	3'-7"	ISO#3-1 FUEL GAS E-429 TS INLET	40	✓	
10	TOTAL NUMBER								
	TOTAL WEIGHT IN LBS.								9,453

TEMPERATURE: TO BE RAISED FROM 800°F TO 1150°F AT A MAXIMUM RATE OF 400°F/HR. DIVIDED BY THE MAXIMUM METAL THICKNESS WHEN GREATER THAN ONE INCH THICK.
 290 °F, BUT IN NO CASE MORE THAN

TEMPERATURE: BE HELD AT 1150°F, ± 25°F FOR 90 MINUTES.

TEMPERATURE: TO BE LOWERED FROM 1150°F, ± 25°F AT A MAXIMUM RATE OF 363 °F, BUT IN NO CASE MORE THAN

500°F/HR. DIVIDED BY THE MAXIMUM THICKNESS OF THE MATERIAL, WHEN THE MATERIAL THICKNESS EXCEEDS 1 INCH.
 THERMOCOUPLE ATTACHMENTS: THERMOCOUPLES ARE REQUIRED AT THE TOP, MIDDLE AND BOTTOM, SEE ATTACHED DRAWINGS FOR
 - SPECIFIC LOCATIONS OF THERMOCOUPLE ATTACHMENTS (WHEN APPLICABLE).

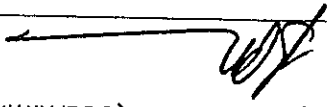
NOTE:

ALL THERMOCOUPLES ARE TO BE ATTACHED BY FLASH WELDING ONLY.

ENSURE THAT ALL ALCO JOB NUMBERS ARE IDENTIFIED ON ALL HEAT CHARTS.

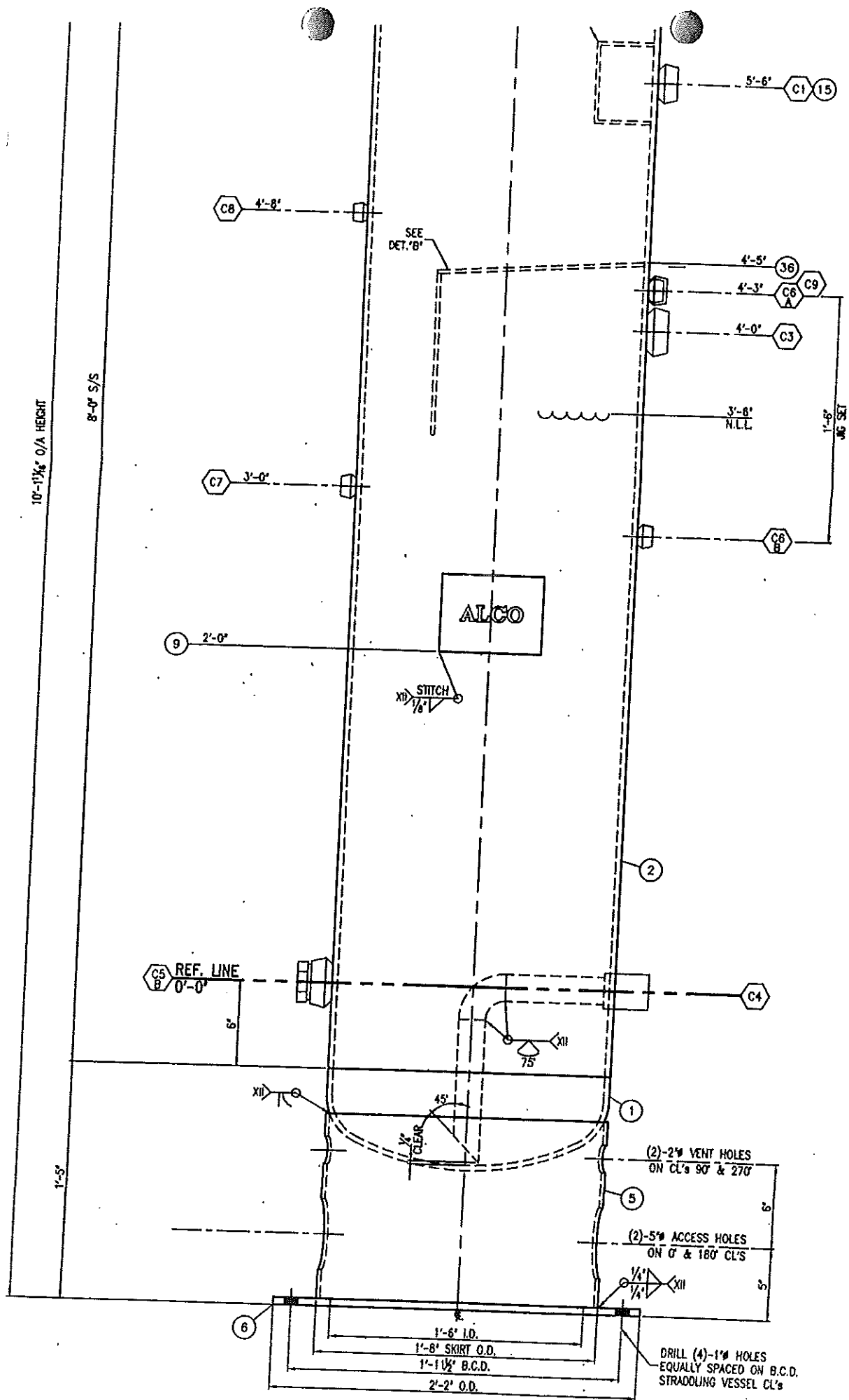
POST WELD HEAT TREATMENT IS TO BE DONE AS PER ASME CODE, SECTION VIII-1, Para. UCS-56.

THE VESSEL AND PARTS THEREOF SHALL BE PROPERLY SUPPORTED AND PROTECTED FROM DIRECT FLAME IMPINGEMENT.
 ALL GASKET SURFACES AND THREADED CONNECTIONS SHALL BE COATED WITH A SUITABLE PROTECTIVE MATERIAL.

AUTHORIZED BY: 

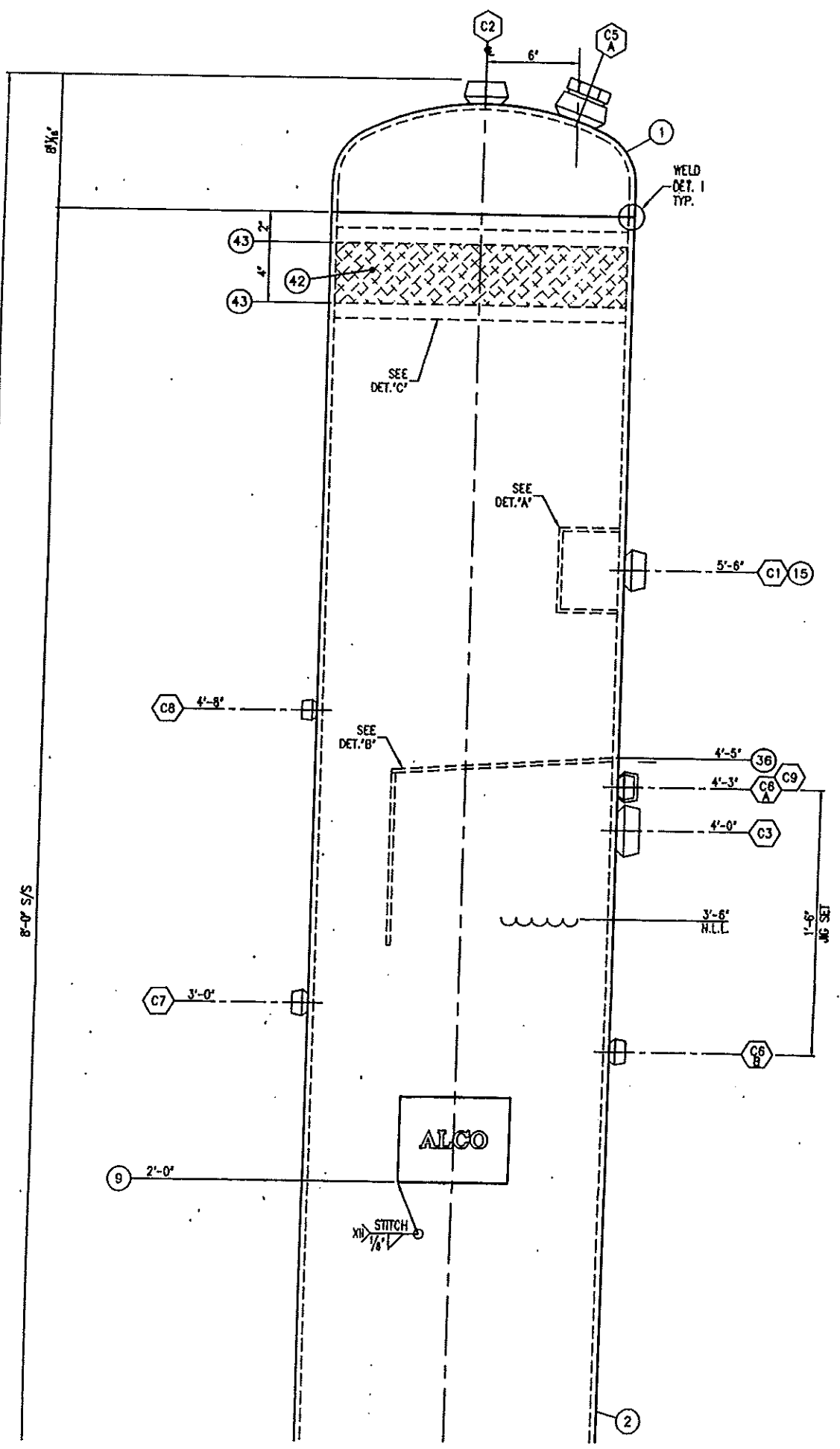
COPIES OF HEAT CHART REQUIRED BY ALCO QC DEPARTMENT

ALCO ORDER NO. 122 391 LOAD NO. FEB#1



ELEVATION

10'-1 1/8" O/A HEIGHT



ALCO GAS & OIL

PRODUCTION EQUIPMENT LTD.

CONTRACTED OUT TO: BRIMESTONE

DATE FEB 1 2010

5203-75 Street, Edmonton, Alberta, Canada T6E 5S5 • Phone: (780) 465-9061 • Fax: (780) 466-8110

POST WELD HEAT TREATMENT INSTRUCTIONS

#	JOB NUMBER	HEAD	SHELL	NOM. DIA.	LENGTH	ITEM DESCRIPTION	WEIGHT IN LBS.	QC APPR.
1	2009-8032-06	.280"	.375"	16"OD	7'-7"	GLYCOL FLASH TANK	630	✓
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1	2009-8035-06	.875"	.875"	8"	2'-11"	GLYCOL CONTROL CAGE	230	✓
1	2009-8035-07	.280"	.375"	20"OD	10'-1"	GLYCOL FLASH TANK	970	✓
1	2009-8035-08	.750"	.322"	8"	5'-3"	RICH TEG PARTICULATE FILTER	260	✓
1	2009-8034-50	PIPE	.500"	8"	3'-2"	ISO#1-IGAS INLET TO V-423	483	✓
1	2009-8034-50	PIPE	.344"	2"	3'-7"	ISO#3-I FUEL GAS E-429 TS INLET	40	✓
10	TOTAL NUMBER						TOTAL WEIGHT IN LBS.	9,453

TEMPERATURE: TO BE RAISED FROM 800°F TO 1150°F, $\pm 25^\circ\text{F}$ AT A MAXIMUM RATE OF 290 °F BUT IN NO CASE MORE THAN 400°F/HR., DIVIDED BY THE MAXIMUM METAL THICKNESS WHEN GREATER THAN ONE INCH THICK.

TEMPERATURE: BE HELD AT 1150°F, $\pm 25^\circ\text{F}$ FOR 90 MINUTES.

TEMPERATURE: TO BE LOWERED FROM 1150°F, $\pm 25^\circ\text{F}$ AT A MAXIMUM RATE OF 363 °F, BUT IN NO CASE MORE THAN 500°F/HR., DIVIDED BY THE MAXIMUM THICKNESS OF THE MATERIAL, WHEN THE MATERIAL THICKNESS EXCEEDS 1 INCH.

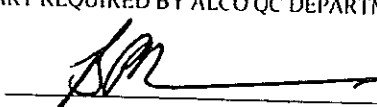
THERMOCOUPLE ATTACHMENTS: THERMOCOUPLES ARE REQUIRED AT THE TOP, MIDDLE AND BOTTOM. SEE ATTACHED DRAWINGS FOR SPECIFIC LOCATIONS OF THERMOCOUPLE ATTACHMENTS (WHEN APPLICABLE).

NOTE: ALL THERMOCOUPLES ARE TO BE ATTACHED BY **FLASH WELDING ONLY**. ENSURE THAT ALL ALCO JOB NUMBERS ARE IDENTIFIED ON ALL HEAT CHARTS. POST WELD HEAT TREATMENT IS TO BE DONE AS PER ASME CODE, SECTION VIII-1, Para. UCS-56.

THE VESSEL AND PARTS THEREOF SHALL BE PROPERLY SUPPORTED AND PROTECTED FROM DIRECT FLAME IMPINGEMENT. ALL GASKET SURFACES AND THREADED CONNECTIONS SHALL BE COATED WITH A SUITABLE PROTECTIVE MATERIAL.

ALCO ORDER NO. 122 391 LOAD NO. FEB#1

COPIES OF HEAT CHART REQUIRED BY ALCO QC DEPARTMENT 1

AUTHORIZED BY: 

DESIGN DATA

M.A.W.P.	250 PSIG • 200F	M.D.M.T.	-20F • 250 PSIG
M.A.E.P.	0 PSIG • 200F	CORROSION ALLOWANCE:	1/8"
RADIOGRAPHY:	UW-11(a)	LONGT. JOINT EFF.	100% SML'S
P.W.H.T.	1150F ±25F FOR 1 HR	HYDROTEST:	325 PSIG
HEADS:	SA-516-70N (1/2" NOM.-80TT) / SA-516-70N	FLANGES:	-
SHELL:	SA-106-B (0.322" NOM. THK)	STUDS:	-
WELD FITTINGS:	-	NUTS:	-
INTERVALS:	SA-38	MISO. PLATE	SA-38
SHIPPING WT.	260 lbs. (EMPTY)	CAPACITY:	1.6 ft ³
TESTING WT.	365 lbs. (FULL OF WATER)		
SURFACE PREPARATION: COMMERCIAL BLAST TO SSPC-SP6.			
PAINT PRIMER: 1.5 TO 2.0 MIL DFT CLOVERDALE #1-101 ZINC PHOSPHATE PRIMER.			
FINISH: 1.5 TO 2.5 MIL DFT CLOVERDALE #111 SERIES MARINE ENAMEL WARM GREY.			
INSULATION: NONE			
G.R.N.		SERIAL NO.: 2009-8035-08	

NOTES

1. ALL BOLTS TO STRADDLE NATURAL VESSEL CENTER LINES.
2. ALL REPADS TO HAVE $\frac{1}{16}$ " NPT WEEPHOLE FILLED WITH SILICONE.
3. PROTECT ALL OPENINGS FOR SHIPMENT.
4. IMPACT TEST.
5. EXTERNAL LOADS PER UG-22 ARE NOT APPLICABLE.
6. ALL INTERNAL & EXTERNAL NOZZLE CORNERS ARE TO BE CHAMFERED TO $\frac{1}{16}$ ".
7. ALSO STANDARD FABRICATION TOLERANCES (DWG #A-4540).
8. VESSEL TO BE MARKED: "P.M.H.T. DO NOT WELD"
9. USE $\frac{1}{4}$ " RILLET FOR MISC. WELDS UNLESS SPECIFIED OTHERWISE.
10. VESSEL TO BE REGISTERED IN ALBERTA, B.C. & SASKATCHEWAN.

C.R.N. STAMP



SEC. VM, DM, 1, 2007 EDITION, 2008a ADDENDA
UM-11(a)
W
HT-1
HT

QUALITY CONTROL
COPY

FOR CONSTRUCTION
DATE: JAN 11 2010

PWHT Jan 29/10 24

ONE (1) UNIT REQUIRED

CH#0	NEW
SCALE	3'-1'-0"
DATE	2008-12-03
DRAWN	JZ

ALCO  **GAS & OIL**
PRODUCTION EQUIPMENT LTD.

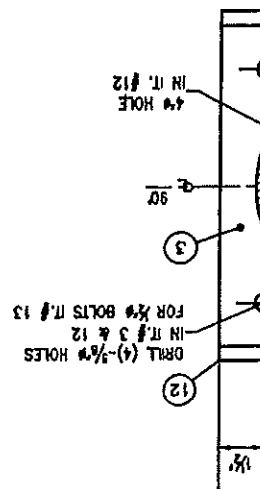
8 5/8" O.D. x 3'-9 1/4" S/S
VERTICAL RICH TEC PARTICULATE FILTER
TAG # F-590

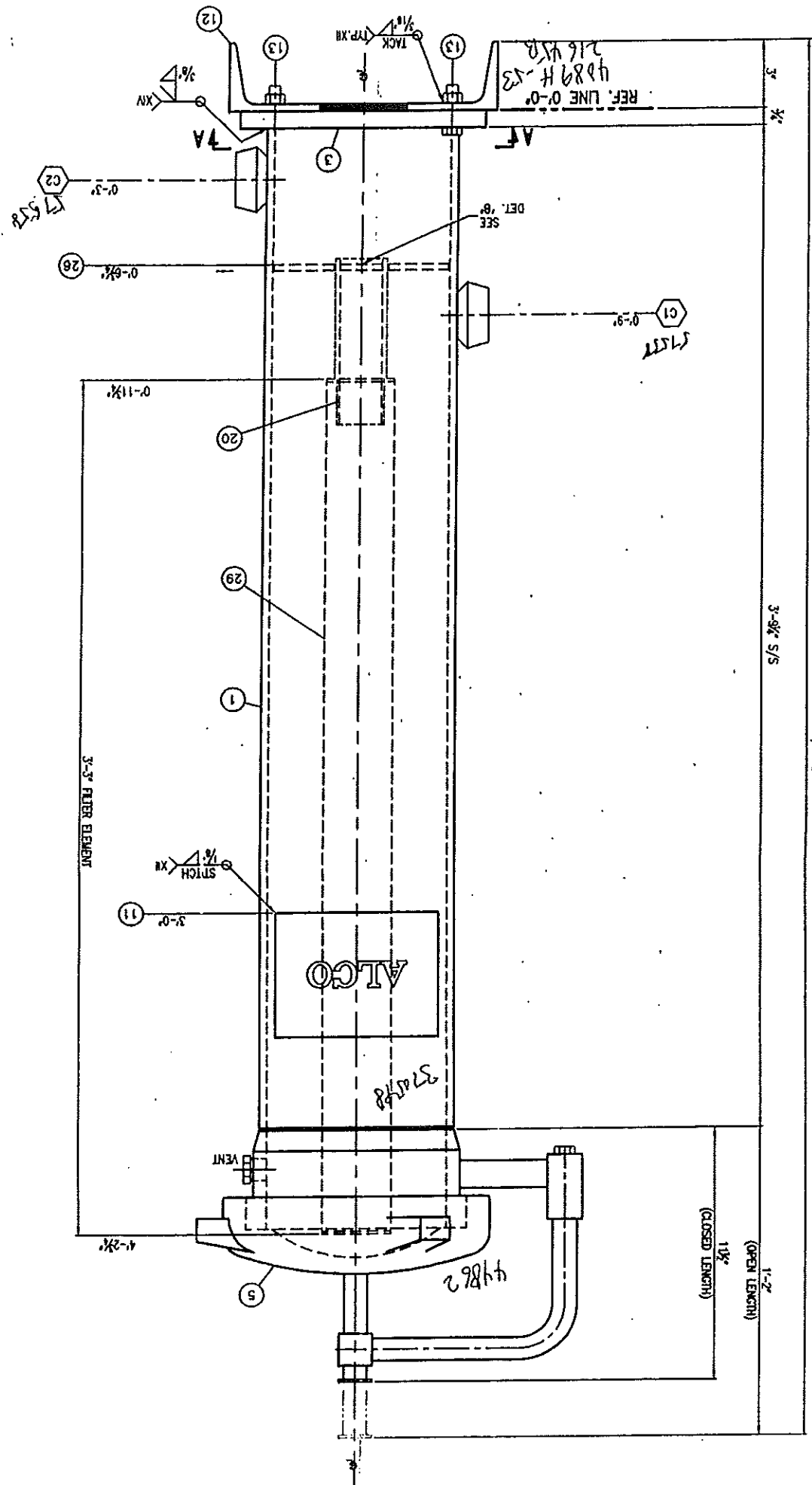
LOCATION: MAXHAMISH

CUSTOMER: EOG RESOURCES CANADA INC. % NIMBUS PROJECTS LTD.

REV. 0

DATE	DESCRIPTION	ISSUED FOR CONSTRUCTION

[illegible]



CONTRACTED OUT TO: BRIMSTONE

DATE FEB 1 2010

5203-75 Street, Edmonton, Alberta, Canada T6E 5S5 • Phone: (780) 465-9061 • Fax: (780) 466-8110

POST WELD HEAT TREATMENT INSTRUCTIONS

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TOTAL WEIGHT IN LBS.							9,453	

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290 °F, BUT IN NO CASE MORE THAN

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TEMPERATURE: TO BE LOWERED FROM 1150°F, ± 25°F AT A MAXIMUM RATE OF 500°F/HR., DIVIDED BY THE MAXIMUM THICKNESS OF THE MATERIAL, WHEN THE MATERIAL THICKNESS EXCEEDS 1 INCH.
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ALL GASKET SURFACES AND THREADED CONNECTIONS SHALL BE COATED WITH A SUITABLE PROTECTIVE MATERIAL.

ALCO ORDER NO. 122 391

COPIES OF HEAT CHART REQUIRED BY ALCO QC DEPARTMENT

AUTHORIZED BY:

For:

EOG RESOURCES

Report No	#4516	District	EDMONTON
Date:	FEB 4 2010		
Published Inside Diam.	9.064"		
Tolerance for 0.7 Beta Factor	0.0453/0.0906"		
Max	9.084"	Min	9.039"
Plate That May be Used			
Max	6.500"	Min	1.500"

MEASUREMENTS OF INSIDE TUBE DIAMETERS & SURFACE ROUGHNESS

Note: When the tube is made up of more than one part, such as a pipe, a flange, and a fitting the 2nd and 3rd diameter measurements should be made in the different parts or the equivalent

UPSTREAM		DOWNSTREAM	
----------	--	------------	--

POSITION	1" from Plate	2nd Diameter	3rd Diameter	1" from Plate	2nd Diameter	3rd Diameter
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	Diam	Roughness	Diam	Roughness	Diam	Roughness	Diam	Roughness
1	9.063"	9.070"	9.082"	9.064"	9.061"	9.090"		
2	9.066"	9.073"	9.079"	9.062"	9.080"			
3	9.062"	9.068"	9.081"	9.063"	9.075"			
4	9.067"	9.072"	9.073"	9.064"	9.081"			
Average	9.065"	9.071"	9.079"	9.064"	9.082"			
Total Average								

UPSTREAM		DOWNSTREAM	
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B Factor if Results Makes it Less than 0.7	0.7	Fitting CANALTA SENIOR	Serial No. D100138
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Up :	1.000"	Down:	1.000"
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Vanes	CPA 50E	Drain Taps	ON FITTING
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Therm. Taps	2" SCH 160	Pipe Wall Thickness	SCH 120
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DIMENSIONS SKETCH			
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Results: A.G.A. Figure (2-8b)	Code	API 1991 - 3rd Edition	API 2000 - 4th Edition
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Remarks	8035-10	Inspector Name & Signature	Barry Rasmussen
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ALCO GAS & OIL PRODUCTION EQUIPMENT LTD. EDMONTON, ALBERTA		A.G.A. RECOMMENDATIONS GUARANTEED		SER. NO. 8035-10 MAX. ORIFICE SIZE 1/2" DOWNSTREAM 1/2"	
AVER. INT. DIA. 1.0000" UPSTREAM 1.0000"		SCH. 40 FOR D/D 1/2"		PIPE SIZE 1.0000" A.G.A. CASE 1.0000"	
DRWG. NO. 8035-10 DATE 8/10/78		Inspected by W.D. Smith		W.D. Smith	

8035-10
 8035-50

FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE
 COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, SEE U-1(i)
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by **Alco Gas & Oil Production Equipment LTD.** 5203 75th St., Edmonton, Alberta T6E 5S5 Canada
 (Name and address of Manufacturer)
 2. Manufactured for **BOG Resources Canada Inc./c/o Nimbus Projects Ltd** 600, 630 - 6th Avenue SW Calgary, AB T2P 0S8
 (Name and address of Purchaser)
 3. Location of installation **MAXHAMISH (LSD: D-36-1/91-O-14)**

4. Type: **VERTICAL**
 (Type, vert., or sphere)
FUEL GAS SCRUBBER
 (Tank, separator, etc.)
0.04 M³
 (Capacity)
2009-7982-011
 (Mfg's serial No.)
2007 EDITION 2008 APPEND A
 (Drawing No.)
2009
 (Year built)
N/A
 (Code Case No.)

6. Shell (a) Number of course(s)												(b) Overall length												2' 5" SM/SM											
Course(s)				Material				Thickness				Long Joint (Cat. A)				Circum. Joint (Cat. A, B, & C)				Heat Treatment															
No.	Diameter	Length	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time																			
1	10 1/4" ID	2'-5"	SA-106B	1/4"		S	N/A	85%	7	NONB	70%	N/A	N/A																						

SA-516Gr.70MT												SA-516Gr.70MT															
(Material spec. number, grade or type) (H.T. — time and temp.)												(Material spec. number, grade or type) (H.T. — time and temp.)															
Heads: (a)		Location (Top, Bottom, Ends)										Thicknss		Radius		Elliptical		Conical		Hemispherical		Flat		Side to Pressure		Category A	
		Min.		Corr.		Crown		Knuckle		Ratio		Apex Angle		Radius		Diameter		Convex		Concave		Type		Full, Spot, None		Eff.	
(b)		0.750"		1/16"		N/A		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"		N/A		FLAT		N/A		N/A		N/A	
		Bottom		0.750"		1/16"		N/A		N/A		N/A		N/A		10 1/4"											

5. ASME Code, Section VIII, Div. 1
 2007 EDITION 2008 APPEND A
 (Edition and Addenda (date))
 N/A
 (Code Case No.)
 6. Shell (a) Number of course(s) 1
 (b) Overall length 2.5" SM/SM

7. Heads: (a) SA-516Gr.70MT
 (Material spec. number, grade or type) (H.T. — time and temp.)
 (b) SA-516Gr.70MT
 (Material spec. number, grade or type) (H.T. — time and temp.)
 8. Type of Jacket N/A
 (Material spec. number, grade, size, number)
 Jacket Closure N/A
 (Describe as ogee & weld, bar, etc.)
 9. MAWP 150 PSI
 (internal)
 0 PSI
 (external)
 at max. temp. 150°F
 (internal)
 150°F
 (external)
 Min. design metal temp. -20°F
 at 150 PSI
 IMPACT TEST EXEMPT PER UG 20 (f)
 (Indicate yes or no and the component(s) impact tested)
 N/A
 Proof test N/A

1. Supports: Skirt									
No		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)		Lugs		NO		Legs	
NO		(Yes or no)							

1. Supports: Skirt No
 Lugs No
 Legs NO
 Others WELDED
 Attached SKID BASE PLATE
 (List the name of part, item number, mfg's. name and identifying number)
 Remarks: *MPR HEAD PLATES PER UG 93 (d)
 PSV LOCATED IN PIPING / ASBUILT DRAWING B-2009-7982-01-001/001 R0
 SOLD TO JOB # 2009-8035-50

2. Nozzles, inspection, and safety valve openings:
 3. Manufacture's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
 (Where and how)
 4. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
 (Where and how)
 5. ASME Code for Pressure Vessels, Section VIII, Division 1
 Certificate of Authorization No. 15959
 Expires October 7, 2010
 Name **Alco Gas & Oil Production Equipment LTD.**
 (Manufacturer)
 Signed **[Signature]**
 (Representative)
 We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1
 (Certified individual)