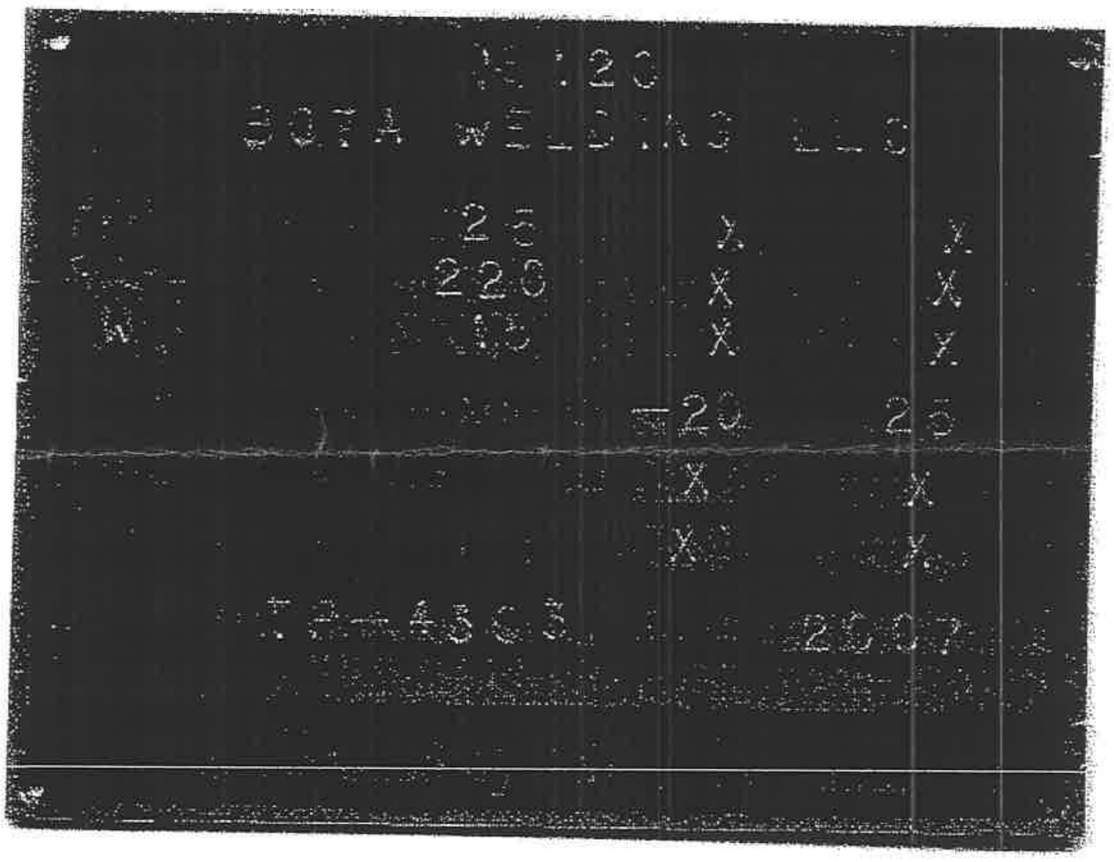


No 120

SOTA WELDING LLC

25 X X

220 X X

15 X X

20 25

X X

X X

2-4363 2007

RECEIVED

JAN 10 2007

BY

PROJECT # 733X

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Bota Welding, LLC 402 - 56th Street, Niagara Falls, NY 14304 (Name and address of manufacturer)

2. Manufactured for: Thermal Kinetics Systems, LLC 667 Tifft Street Buffalo, NT 14220 (Name and address of purchaser)

3. Location of installation Unknown (Name and address)

4. Type: Horizontal (Horiz. or vert tank) TP-4303 (Mfg's serial No.) - (CRN) 6018-MQ-4305 Rev 2 (Drawing No.) 120 (Nat'l Bd. No.) 2007 (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE The design, construction, and workmanship conform to ASME Rules, Section VIII, Div. 1 2004 Year

to 2005 Addenda (Date) - Code Case Nos - Special Service per UG-120 (d)

6. Shell SA-240 TP-304L Mat'l (Spec. No. Grade) .188 Nom. Thk (in.) 0 Corr. Allow (in.) 3' 5-5/8" Diam., I.D. (ft. & in.) 5' 7-7/8" Length (overall) (ft. & in.)

7. Seams: Type 1 Long (Welded, Dbl. Singl., Lap, Butt) None R.T. (Spot or Full) 70 Eff. (%) N/A H.T. Temp. (°F) - Time (hr) Type 1 Girth (Welded, Dbl. Singl., Lap, Butt) None R.T.(Spot Eff. (%) or Full) 1 No. of Courses

8. Heads: (a) Matl SA-240 TP-304L (Spec. No., Grade) (b) Matl SA-240 TP-304L (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Top	.125	0			2:1				Concave
(b)	Bottom	.125	0			2:1				Concave

If removable, bolts used (describe other fastenings) (Mat'l Spec. No., Grade, Size, No.)

9. MAWP 25 (internal) 15 (external) psi at max temp. 220 (internal) 220 (external) °F

Min. design metal temp. -20 °F at 25 psi. Hydro. pneu., or comb. test press. 32.5 psi

10. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl	Nom. Thk	Reinforcement Material	How Attached	Location
Overflow & Spare	2	1.5"	Cl150Flg	SA-312 TP-304L	.1450	N/A	UW16.1©	shell
Leve & Sparel	3	3"	Cl150Flg	SA-312 TP-304L	.2160	N/A	UW16.1©	head-shell
In let & Outlet	2	6"	Cl150Flg	SA-312 TP-304L	.2800	SA-240 TP-304L	UW16.1©	shell
Sight Glass	1	6"	studpad	SA-240 TP-304L	2.000	N/A	UW16.1©	shell

11. Supports: Skirt (Yes or No) Lugs (No.) Legs (No.) Others 2 saddle (Describe) Attached Welded (Where and How)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: (Name of part, item number, Mfg's name and identifying stamp)

Impact Test Exempt Per UHA-51(d) UCS 66(c), Owner/User responsible for Pressure Relief Valve

Cir seam 70% E. 2 Lifting Lugs welded to heads.

CERTIFICATE OF SHOP/FIELD COMPLIANCE

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. U Certificate of Authorization No. 32004 Expires 7-26, 2009

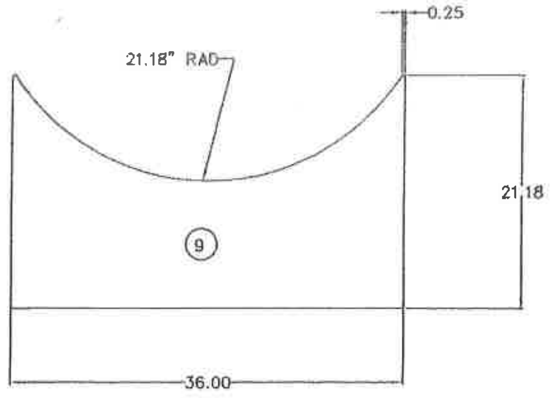
Date 1/2/07 Co. Name Bota Welding, LLC (Manufacturer) Signed (Representative)

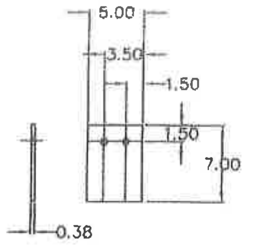
CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Bota Welding, LLC at 402 - 56th Street, Niagara Falls, NY 14304

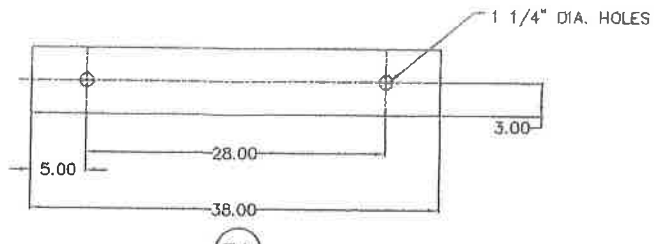
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of New York and employed by HSB CT have inspected the component described in this Manufacturer's Data Report on 1/2/07, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 1/2 /07 Signed (Authorized Inspector) Commissions NB11103ANY5078 (Nat'l Board (incl endorsements) State, Prov. and No.)

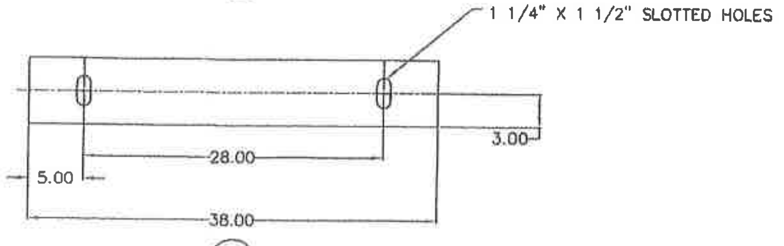




⑮FIRE PROTECTION CLIP

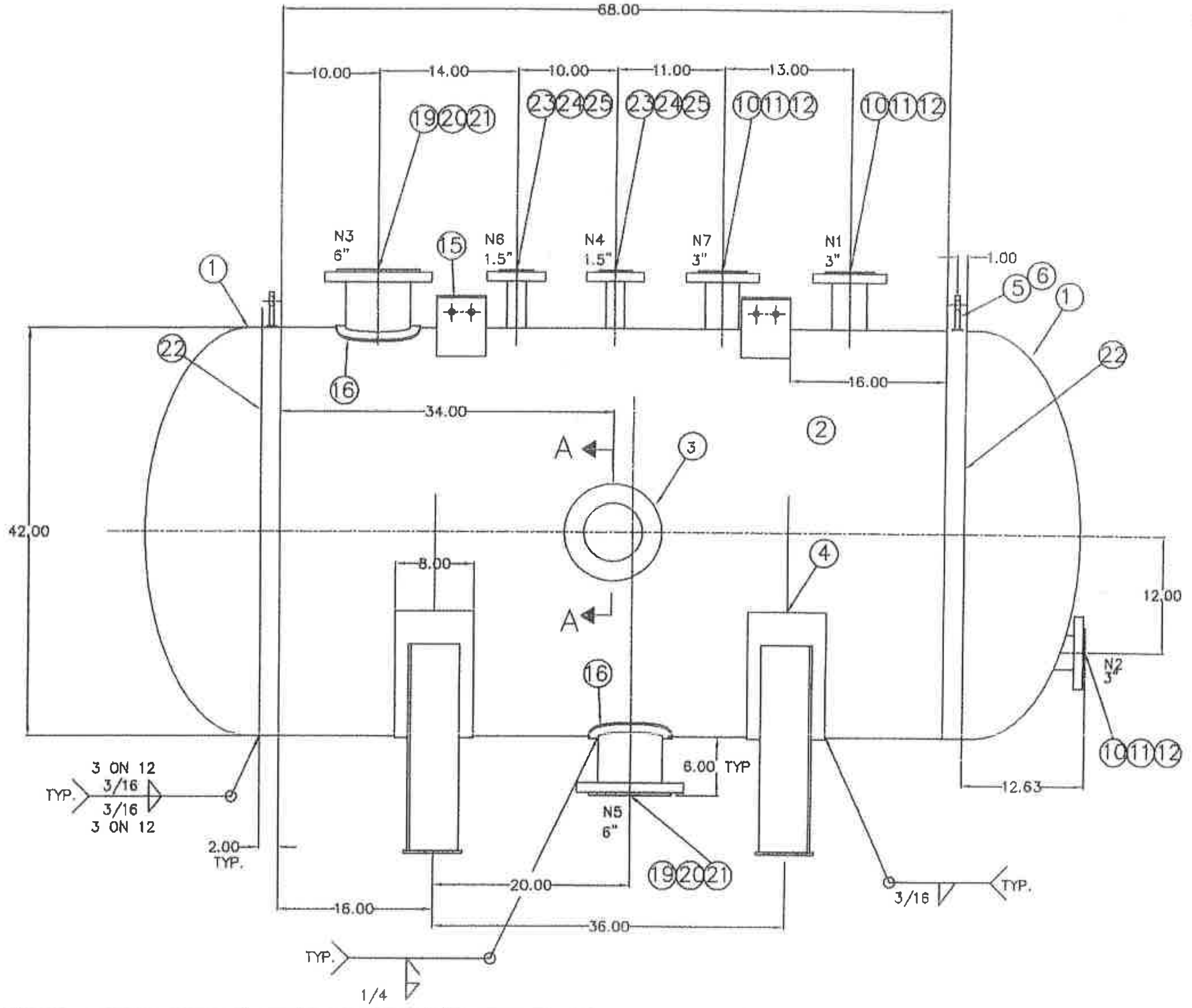


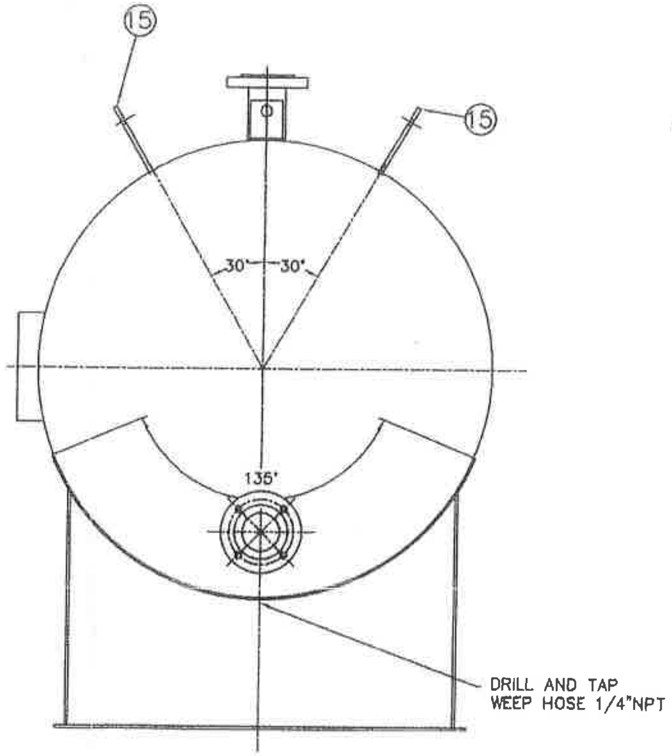
(7A)

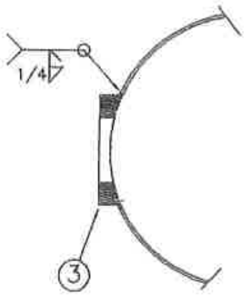


(7B)

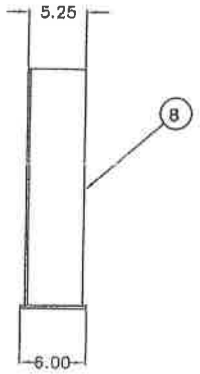
DESIGN DATA
CODE: ASME VIII DIV1 STAMPED AND REGISTERED
SPECIFIC GRAVITY/CONTENTS: 0.838
DESIGN PRESS. 25/FV (psig)
DESIGN TEMP.: 220 (F)
OPERATING PRESS.: 2.0 (psig)
OPERATING TEMP.: 120 (F)
MDMT: −20 DEG. F
CORROSION ALLOWANCE: NONE
HYDRAULIC TEST PRESSURE: 32.5 PSI

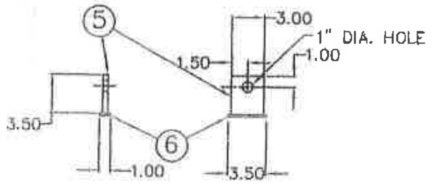






SECTION A-A





DETAIL LIFTING LUG

AS BUILT DRAWING

NOZZ.	SERVICE	SIZE	RATING	TYPE	REMARKS
W1	SIGHT GLASS 6" VIEW			W/PAD	
N7		3"	150#	LJ	FR EP4303
N6		1.5"	150#	LJ	TO ET-4301
N5	OUTLET	6"	150#	LJ	TO PC-4303
N4	OVERFLOW	1.5"	150#	LJ	FR PV-4301
N3	LIQUID INLET	6"	150#	LJ	FR ET-4301
N2	LEVEL TRANS. CONN.	3"	150#	LJ	LT-005
N1	LEVEL TRANS. CONN.	3"	150#	LJ	LT-005

NOTES:

1) ALL BOLT HOLES TO STRADDLE NATURAL CENTERLINES UNLESS NOTED OTHERWISE.
2) ALL STAINLESS STEEL TO BE L GRADE AND CERTIFIED.
3) FOR ALL INTERIOR AND EXTERIOR SURFACES SEE THERMAL KINETICS CLEANING AND BLASTING SPEC. GF-1.8.0 CLASS 1
4) ALL TOLERANCES PER ASME PRESSURE VESSEL CODE LASTEST EDITION, SECTION VIII, DIVISION 1
5) WIND 80 MPH, EXP. C WIF = 1.0
6) ALL FILLET WELDS TO BE 3/16" UNLESS NOTED

UNLESS OTHERWISE NOTED, ALL MACHINE SURFACES TO HAVE 125 RMS FINISH

UNLESS OTHERWISE NOTED, TOLERANCES ARE:
ANGLES: ± 1/2°
FRACTIONS: ± 1/16"
DECIMAL: .X ± .03
.XX ± .010
.XXX ± .005
.XXXX ± .0005

REV	BY	DATE	DESCRIPTION

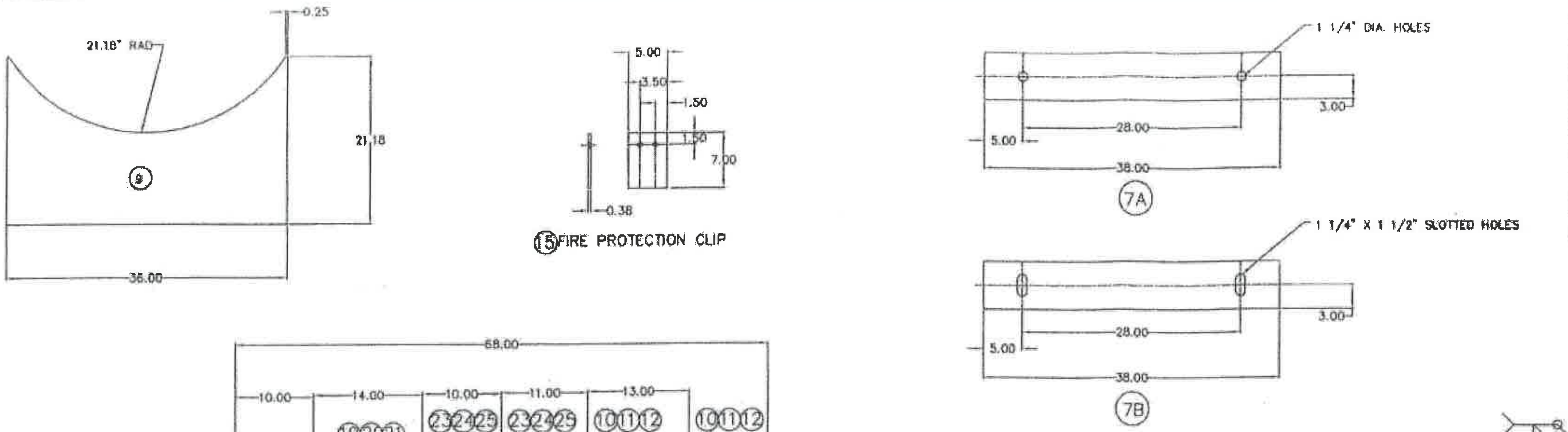
SIGNATURES	DATE
DRAWN BY: MG	9/28/06
CHECKED BY: .	.
INSTRU. APPR: .	.
PIPING APPR: .	.

BOTA WELDING

Customer THERMAL-KENETICS

Title:
FABRICATION
EQUIPMENT_#_TP-4303
.

Drawing Scale: .	Plot Scale: 10		
Customer Dwg. Number .			
SIZE D	Dwg.Number 6018-MQ-4305	Sheet 2	Con't.On 2	Rev 2



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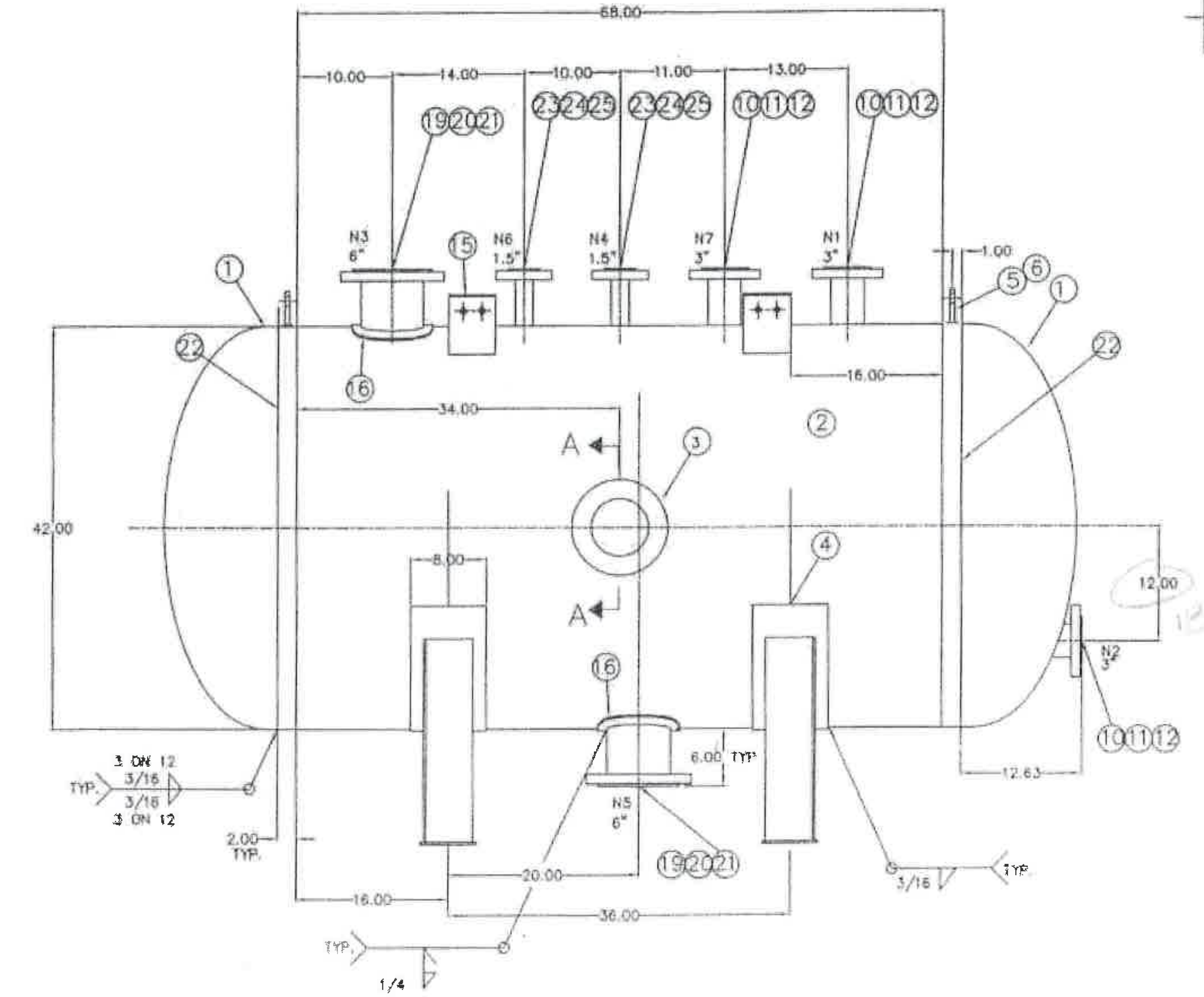
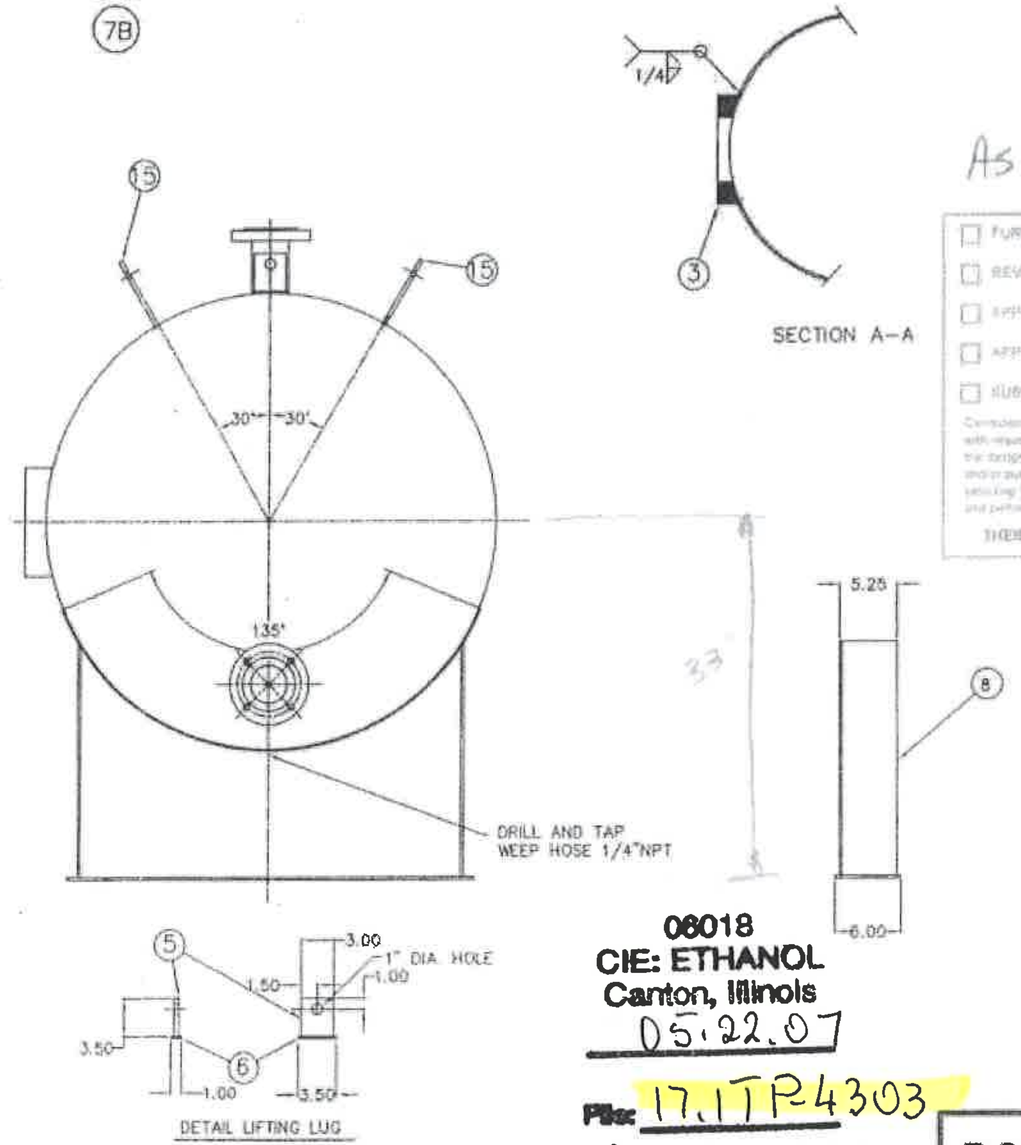
OPERATING TEMP.: 120 (F)
MDMT: -20 DEG. F
CORROSION ALLOWANCE: NONE

FIELD FILE





As built dwgs. Received & N.A.

☐ FURNISH AS SUBMITTED
☐ REVISE AND RESUBMIT
☐ APPROVED FOR MATERIAL RELEASE
☐ APPROVED FOR FABRICATION
☐ SUBMIT SPECIFIED ITEM
☐ FURNISH AS CORRECTED
☐ REJECTED - HOLD FOR FURTHER DISCUSSION
☐ FOR YOUR INFORMATION/RECORDS
☐ SUBMIT AS-BUILT FOR RECORD

[illegible]

THERMAL KINETICS SYSTEMS, LLC Date ____ By ____

THERMAL KINETICS SYSTEMS LLC
RECEIVED
BY Quin Buffa
PROJECT # 73238

08018
CIE: ETHANOL
Canton, Illinois
05.22.07
File: 17.1TP4303
0180002099

NOZZ.	SERVICE	SIZE	RATING	TYPE	REMARKS
W1	SIGHT GLASS 6" VIEW			W/PAD	
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.XX ± .015
.XXX ± .005
.XXXX ± .0005

REV	BY	DATE	DESCRIPTION

	SIGNATURES	DATE
DRAWN BY:	MC	9/28/06
CHECKED BY:		
INSTRU. APPR:		
PIPING APPR:		

BOTA WELDING

Customer THERMAL-KENETICS

Title: FABRICATION
EQUIPMENT_#_TP-4303

Drawing Scale:
Plot Scale: 10
Customer Dwg. Number

SIZE	Dwg.Number	Sheet	Con't.On	Rev
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