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www.tssa.org

December 10, 2014

ALICIA CZERNIAWSKI
ANRIC ENTERPRISES
701 EVANS AVE SUITE 202
TORONTO ON M9C 1A3
CA

Service Request Type: BPV-PV Registration
Service Request No.: 1466530
Your Reference No.: ENG-1405-0216
Registered to: CP INDUSTRIES INC

Dear ALICIA CZERNIAWSKI,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN No.: R1141.5

Main Design No.: 0038-02-00-00_CRN REV 0, 0038-01-00-00_f REV. f

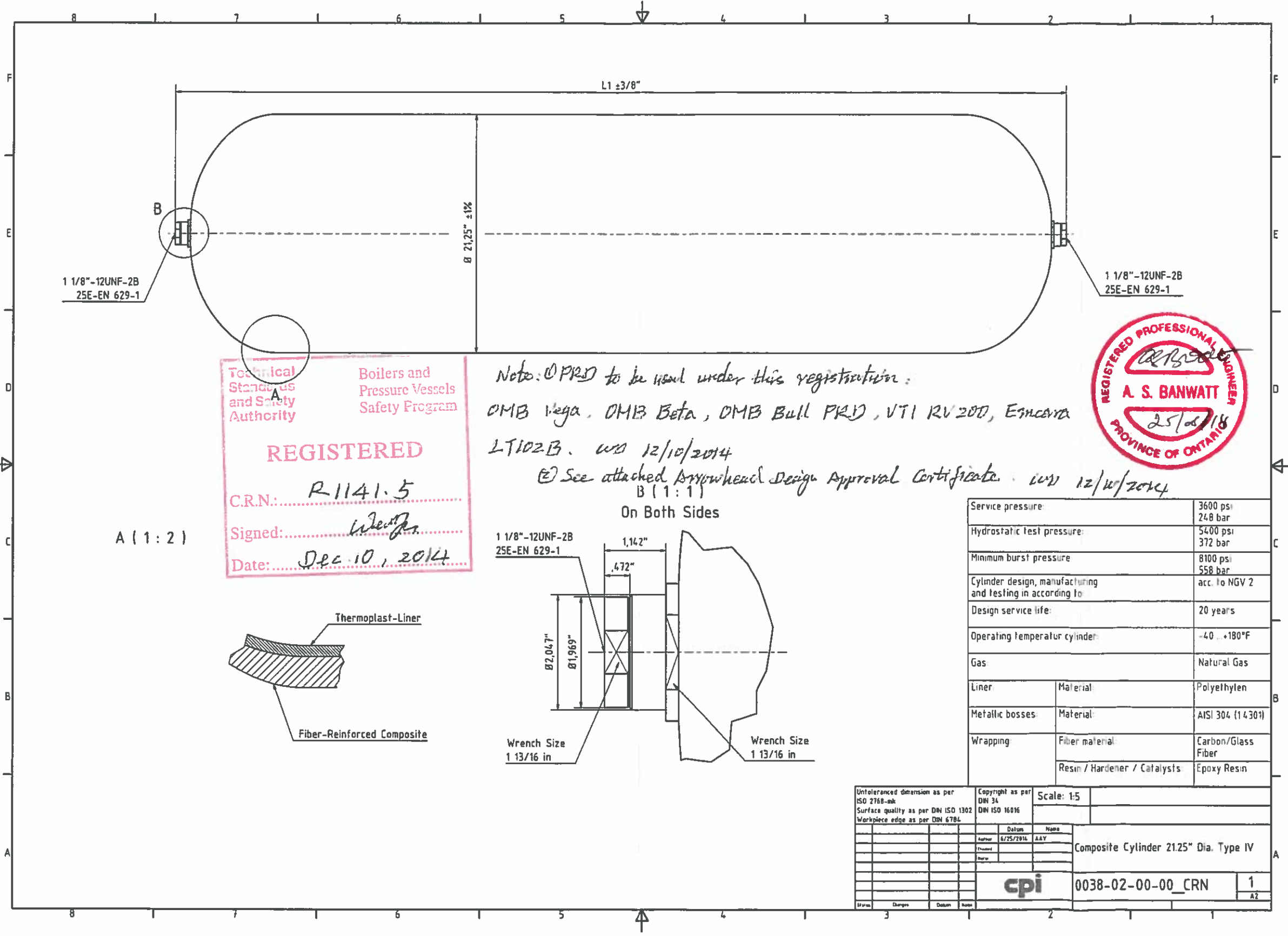
Notes of registration:

1. ANSI NGV 2 - CNG type IV cylinder
2. Service life: 20 years
3. Registered PRD: OMB Vega, OMB Beta, OMB Bull PRD, VTI RV200, and Emcara LT102B

The stamped copy of the approved registration and the invoice are mailed separately. Should you have any questions or require further assistance, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Wendy Du, P.Eng.
Technical Standards & Safety Authority
Boilers & Pressure Vessels Safety Program
Tel.: 416-734-3566
Fax: 416-231-6183
Email: wdu@tssa.org



Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety Program

REGISTERED

C.R.N.: R1141.5

Signed: *W. J. ...*

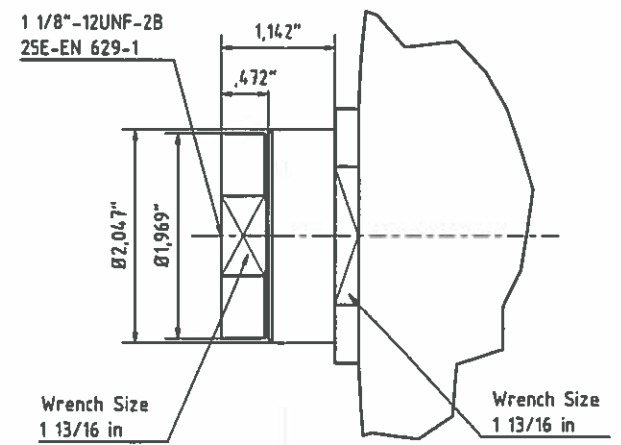
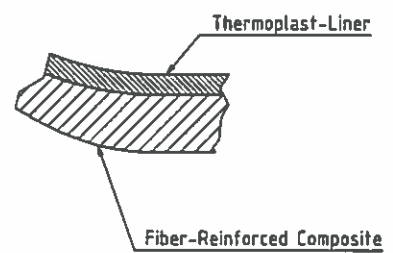
Date: Dec 10, 2014

Note: (1) PRD to be used under this registration:
OMB Vega, OMB Beta, OMB Bull PRD, VTI RV 200, Escava
LT102B. WD 12/10/2014

(2) See attached Arrowhead Design Approval Certificate. WD 12/10/2014



A (1:2)



Service pressure:	3600 psi 248 bar
Hydrostatic test pressure:	5400 psi 372 bar
Minimum burst pressure:	8100 psi 558 bar
Cylinder design, manufacturing and testing in according to:	acc. to NGV 2
Design service life:	20 years
Operating temperatur cylinder:	-40 .. +180°F
Gas:	Natural Gas
Liner:	Material: Polyethylen
Metallic bosses:	Material: AISI 304 (1.4301)
Wrapping:	Fiber material: Carbon/Glass Fiber
	Resin / Hardener / Catalysts: Epoxy Resin

Untoleranced dimension as per ISO 2768-mk	Copyright as per DIN 34	Scale: 1:5
Surface quality as per DIN ISO 1302	DIN ISO 16016	
Workpiece edge as per DIN 6784		
Author	Date	Name
	6/25/2016	AAV
Composite Cylinder 21.25" Dia. Type IV		
cpi		0038-02-00-00_CRN
		1
		A2

COMPOSITE CYLINDER SPECIFICATIONS			COMPOSITE CYLINDER SPECIFICATIONS		
Length L1 (in.) +- 1/2"	Volume @Pw +- 2% Liters	Weight +- 3% lbs	Length L1 (in.) +- 1/2"	Volume @Pw +- 2% Liters	Weight +- 3% lbs
60	246	177	91	398	277
61	251	180	92	403	280
62	256	184	93	408	283
63	261	187	94	413	286
64	266	190	95	418	289
65	271	193	96	422	292
66	275	197	97	427	296
67	280	200	98	432	299
68	285	203	99	437	302
69	290	206	100	442	305
70	295	210	101	447	308
71	300	213	102	452	311
72	305	216	103	457	314
73	310	219	104	462	318
74	315	223	105	467	321
75	320	226	106	471	324
76	324	229	107	476	327
77	329	232	108	481	330
78	334	236	109	486	333
79	339	239	110	491	337
80	344	242	111	496	340
81	349	245	112	501	343
82	354	248	113	506	346
83	359	251	114	511	349
84	364	255	115	516	352
85	369	258	116	520	355
86	373	261	117	525	359
87	378	264	118	530	362
88	383	267	119	535	365
89	388	270	120	540	368
90	393	274			

THIS IS PART OF
CRN R1141.5
 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program

Untoleranced dimension as per ISO 2768-mk		Copyright as per DIN 34		Scale: 1:5	
Surface quality as per DIN ISO 1302		DIN ISO 16016			
Workpiece edge as per DIN 6704					
Author	Date	Name			
Checked	6/25/2014	AAV	Composite Cylinder 21.25" Dia. Type IV		
Drawn					
			0038-02-00-00_CRN		2
					A2



ARROWHEAD

INDUSTRIAL SERVICES USA, INC.

COMPRESSED GAS
CONTAINER SPECIALISTS

DESIGN APPROVAL CERTIFICATE

FOR
COMPRESSED GAS CONTAINERS
(ORIGINAL) Rev. A

THIS IS PART OF
CRN **R1141.5**
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program

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E-mail:
AI01@arrowheadindustrial.com

Designer

CP Industries
2214 Walnut St.
McKeesport, PA 15132
USA

Manufacturer

CP Industries
2214 Walnut St.
McKeesport, PA 15132
USA

Design Qualification No.

QTR-177-1868

Design Specifics

Specification:	NGV2-07 / TYPE 4		
Cylinder Part No:	NGV 2-Type IV 21.25" Diameter-3600 psi		
Cylinder Service Life:	20 years		
Cylinder Drawing:	0038-01-00-00_f	Rev.	f
Liner Drawing:	0038-00-01-00	Rev.	a
Label Drawing:	0038-03-00-00	Rev.	0
Winding Summary:	ISA_2668-00-03-R00P	Rev.	0
Approved Contents:	Compressed Natural Gas		

Pressures (Serv./Test):	3600 psi /	5400 psi
	248 bar /	372 bar

This certificate of design approval is hereby issued for Design Part Number NGV 2-Type IV 21.25" Diameter-3600 psi, manufactured in accordance with Design Qualification No. QTR-177-1868, dated November 2013, and the above stipulated criteria.

Approved By:

ARROWHEAD INDUSTRIAL SERVICES USA, INC.

January 17, 2014

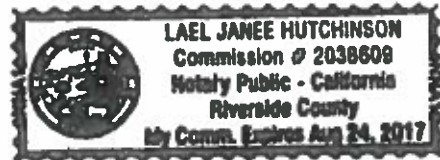
Y. Julie Dahl, QA Engineer

Date of Issue

STATE OF CALIFORNIA)
) SS
COUNTY OF RIVERSIDE)

Witness my hand and Official Seal:

Notary Public



January 17, 2014

Date of Issue

Subscribed and sworn to (or affirmed) before me on this the 17th day of January, 2014 by Y. Julie Dahl personally known to me or proved to me on the basis of satisfactory evidence to be the person who appeared before me

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