Beshada, Eshetu

From: Ryan Smith < Ryan. Smith@Univar Solutions.com>

Sent: December 15, 2022 8:02 AM

To: Beshada, Eshetu < Eshetu. Beshada@gov.mb.ca>

Cc: Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>; Joel Rodrigues <Joel.Rodrigues@UnivarSolutions.com>

Subject: RE: File 5844.00 - Univar Solution -NoA Request - Additional Info

Hello Eshetu,

As per our conversation on Monday, we have engaged an engineer to work on this project with us, and they have provided us some information on the overall design. We have detailed information on the tank and scrubber system (provided). In order to move further along the project, we are at the point where we will have to start investing capital, and we would like to get a preliminary approval in order to be able to justify the expenditure. We just don't want to begin the next stage of work without knowledge we will be able to do the construction.

We will happily update you with finalized plans, and more details once they are in place.

Here are the answers to your request in bullet form.

- Provide an updated site plan showing the entire outdoor tank farm including Tank Id numbers, capacity, and product stored in the tank.
 - See attachment "99 Lowson HCL Proposal.pdf" north east corner of map for tank farm area.
 - o See file WN.0008 Bulk Storage Tanks.pdf for information on current products and quantities.
- Provide detailed specifications including a drawing of the tank and secondary containment system for the new product.
 - See attachment "99 Lowson HCL Proposal.pdf" north east corner of map for location
 - See attachment "Z-0125-1 AS BUILT 1101.pdf" for the detailed tank drawings.
 - Secondary containment will be segregated from current products as indicated on the map, and will have a
 HCL resistant lining. It will be approximately 25'x35'x6.5'. This is the size recommended by the engineer
 working on the project, and is in line with industry standards.
- Provide detailed information and specification of the proposed acid scrubber system. If there will be any waste generated from the scrubber system, how will it be handled?
 - Attached files show schematics of the scrubber (Attachment 6546-0.pdf)
 - Specifications are:

Gas flow rate: 1,200 CFM max
 Water flow rate: 25 US Gal/Min
 Chemical service: HCL 37% fumes
 Design pressure: Atmospheric
 Design temperature: ambient

- The fumes are captured by a caustic soda solution, and waste will be neutralized prior to shipping. Miller Environmental will be handling the waste product generated by the scrubber.
- Provide the location of the scrubber system installation on a drawing.
 - See attachment "99 Lowson HCL proposal.pdf" (North East Corner of facility)
- Provide description where the loading and offloading of the new product will occur.
 - See attachment "99 Lowson HCL proposal.pdf" (North East Corner of facility)
 - Product will arrive by railcar, be offloaded into the tank, then moved from the tank to trucks and IBC containers.
- Provide detailed information how the new product will be loaded into smaller containers.
 - Using processes that are industry standard, and done at our other facilities in Canada, we will use a pump to
 move the product from the storage tank into smaller packages. This will be done in a purpose built area in
 the building nearest the loading tank. The totes are HCL rated.

- Describe how loading into smaller containers takes place and identify where the smaller containers will be stored.
 - We will draw from the tank using a pump to fill totes on a scale. Products will be filled by weight as we do
 with other products at our facility. Totes will be stored in our warehouse where we currently store the same
 products, but which are filled elsewhere in the country.
- The bulk product stored on site is mainly Class 3 Flammable Liquids while the new product is a Class 8 Corrosive. Therefore, provide an assessment done that determine the proposed new installation meets the industry standards for design and construction of a chemical storage area that contains different Classes of dangerous goods.
 - The proposed new installation will be overseen by an engineer who regularly designs systems for this product. The tank, lines, pumps, hoses, PPE, dykes will have the required certification, and will be subject to pre-startup inspections. The production, storage, and containment areas are segregated.
 - Similar activities are done at our various sites across Canada where with proper segregation of activities, we are able to ensure that the work is done safely, and in accordance with standard practices.
 - Univar Solutions is a member of Responsible Distribution Canada. We are audited on a schedule to ensure that our processes are up to or exceed industry standards. We have a very strong safety, environment, and sustainability culture in our company.

Please let me know if there's any other information required.

Thank you,

Ryan Smith

Quality Assurance & EHS Coordinator

Univar Solutions

P: +1 (204)928-7237 M: +1 (204)990-7625 F: (204)489-0881

From: Beshada, Eshetu

Sent: September 9, 2022 4:03 PM **To:** Ryan.Smith@UnivarSolutions.com

Cc: Burland Ross, Siobhan < <u>Siobhan.BurlandRoss@gov.mb.ca</u>> **Subject:** RE: Notice of Alteration Request - Univar Solutions

Hello Ryan,

The notice of alteration has been reviewed and the following additional information is required to complete the environmental assessment.

- Provide an updated site plan showing the entire outdoor tank farm including Tank Id numbers, capacity, and product stored in the tank.
- Provide detailed specifications including a drawing of the tank and secondary containment system for the new product.
- Provide detailed information and specification of the proposed acid scrubber system. If there will be any waste generated from the scrubber system, how will it be handled?
- Provide the location of the scrubber system installation on a drawing.
- Provide description where the loading and offloading of the new product will occur.
- Provide detailed information how the new product will be loaded into smaller containers.
- Describe how loading into smaller containers takes place and identify where the smaller containers will be stored.

• The bulk product stored on site is mainly Class 3 Flammable Liquids while the new product is a Class 8 Corrosive. Therefore, provide an assessment done that determine the proposed new installation meets the industry standards for design and construction of a chemical storage area that contains different Classes of dangerous goods.

Please also note that once the NoA is approved, an Emergency response plan must be updated to include HCl storage.

Regards

Eshetu Beshada, PhD., P. Eng. Senior Environmental Engineer Industrial and Wastewater Section Ph: 204 250-1932

From: Ryan Smith < Ryan. Smith@UnivarSolutions.com >

Sent: August 17, 2022 10:07 AM

To: +WPG530 - Environmental Approvals Branch Director < EABDirector@gov.mb.ca>

Subject: Notice of Alteration Request - Univar Solutions

Hello,

Please find the attached documents for an Environmental License Alteration notice.

The \$500 fee will be paid using a credit card once I have a reference number.

Please let me know if you need any additional information.

Thank you,

Ryan Smith

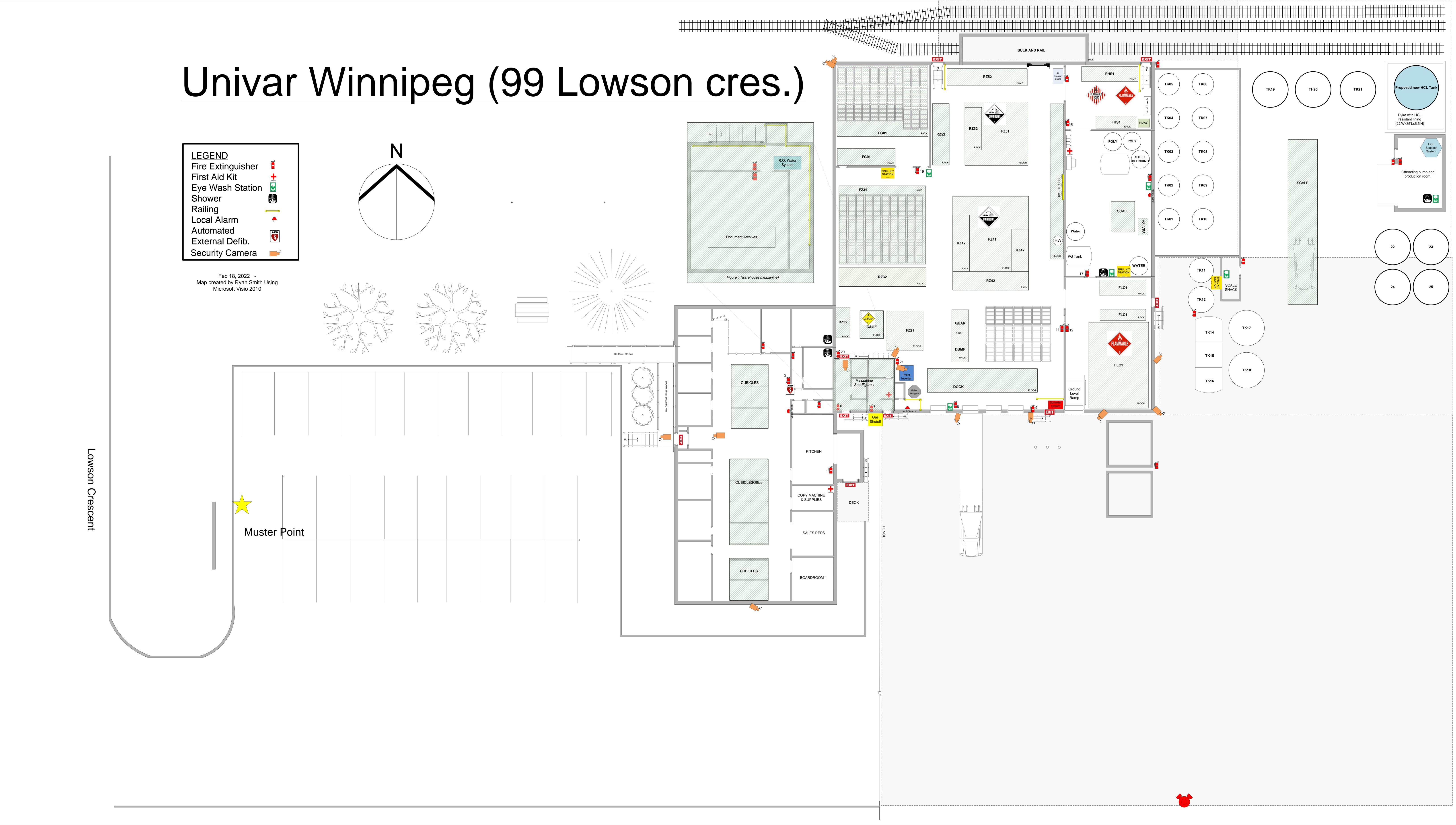
Quality Assurance & EHS Coordinator

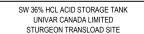
Univar Solutions

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ryan.smith@UnivarSolutions.com

UnivarSolutions.com



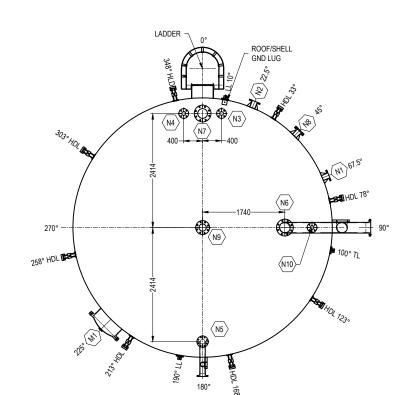


VESSEL SERIAL NO .: DATE FOR MFG.: JANUARY 2013 CUSTOMER PO.: 13W01575 SWANCOR 901 LINER SEQUENCE: MAX AWP MIN. A.W.P. 0.072 psi SPECIFIC GRAVITY VESSEL CONTENT 36% HCL ACID CAPACITY:

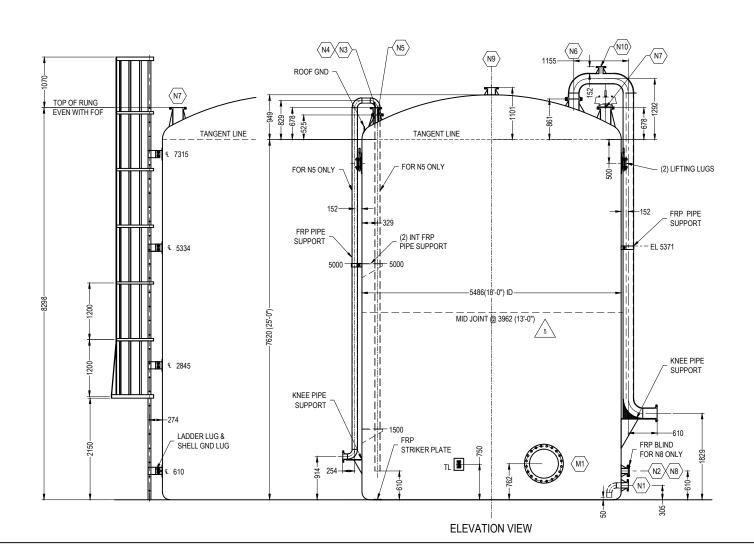
EMPTY WEIGHT

CORROSION 3608-69 Avenue Edmonton, Alberta T68 2V2 Ph: 780-465-0726 "MADE IN CANADA"

6582 Kg (14500 lbs)



ORIENTATION AND PLAN VIEW



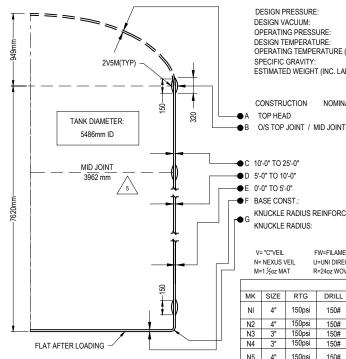
FOUNDATION LOADS FULLY SUPPORTED REINFORCED CONCRETE SLAB (± 1/4" FLATNESS)

EMPTY WEIGHT(APPROX.) = 14699 lbs
OPERATING FULL CAPACITY(APPROX.) = 490824 lbs

DESIGN WIND/SEISMIC BASE MOMENT = 1478220 lbf * in BASE SHEAR = 8670 lbf

HOLD DOWN PARAMETERS BOLT CIRCLE DIAMETER =

226 in INSTALLATION PRE-TORQUE REQ.= 5 lbf * in WIND/SEISMIC MOMENT = 1478220 lbf * in



750x750x25mm REPAD 20mm OVERWIND

FOR LIFTING LUG

FOR TAILING LUG

U=UNI DIRECTIONAL ROVING H=1 LAYER OF HOOP WINDING N= NEXUS VEIL M=1 1/2 oz MAT R=24oz WOVEN ROVING m=3/4oz MAT NOZZLE SCHEDULE MK SIZE RTG DRILL MAT'L STYLE PROJ. PUMP OUT C/W 90° FRP ELBOW 150# FRP FF 4" 150psi 6" AND INTERNAL PIPING 150psi 150# FRP 150# FRP 150psi 150# FRP FF SEE EL SPARI 150# FRP FF SEE EL TOP FILL LINE C/W EATER PIPING AND SUPPORTS TOP FILL LINE C/W EXTERNAL N6 8" 50psi 150# FRP FF SEE EL SCRUBBER N7 8" 50psi 150# FRP FF N8 4" 150psi 150# FRP FF SEE EL PVRV 6" SPARE C/W FRP BLIND

DESIGN INFORMATION

FABRICATION DETAILS

0.778"

0.539"

WALL CONSTRUCTION

0.636"

0.777"

1.048"

FW=FILAMENT WINDING 1 CLOSING SF= 4.5mm P.B. 3D FABRIC

0.072 ps

39 °C

14669 lbs

2V5M,3(MR)M,3(MR)N

3(MR)M.3(MR)N

2V5M, 8(mH)n

2V5M,11(mH)r

3(MR)M,3(MR)M,N

CONSTRUCTION SEQUENCE

2V5M,4(mH)mU4(mH)mU3(mH)m,r 2V5M.3(MR)M.3(MR)M.3(MR)N

DESIGN PRESSURE

OPERATING PRESSURE:

DESIGN TEMPERATURE:
OPERATING TEMPERATURE (MAX.):

ESTIMATED WEIGHT (INC. LADDER/PLATFORM)

CONSTRUCTION NOMINAL THICKNESS

KNUCKLE RADIUS REINFORCEMENT:

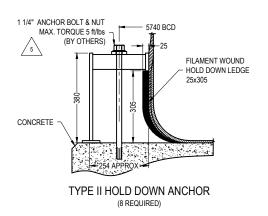
KNUCKLE RADIUS:

V= "C"VEIL

DESIGN VACUUM:

SPECIFIC GRAVITY:

- 1. VESSEL IS TO BE MANUFACTURED WITH SWANCOR 901 RESIN
- VESSEL IS TO BE BUILT WITH ASTM DESIGN AND SPEC D-3299.
- 3. INSIDE OF VESSEL TO HAVE 2 LAYER OF "C" VEIL & 5 LAYERS OF 1 1/2 oz MAT LINER.
- 4. VESSEL MUST BE VENTED AT ALL TIMES.
- VESSEL IS TO BE COLOURED CLEAR C/W UV PROTECTION.
- ALL BOLTS HOLES ARE TO STRADDLE NORTH & SOUTH CENTER LINE OF VESSEL.
- ALL DIMENSIONS ARE IN METRIC UNLESS NOTED OTHERWISE.
- 8. THIS VESSEL IS LOCATED OUTDOORS.
- ALL NOZZLES WITH THE EXCEPTION OF MANWAY WILL HAVE 4 GUSSETS.
- 10. ALL NOZZLES HAVE SERRATIONS ON FLANGES FACES.
- 11. ALL METAL ATTACHMENT ARE HOT DIPPED GALVANIZED CARBON STEEL EXCEPT FOR LIFT LUGS WHICH ARE STAINLESS STEEL.
- 12. FILL TO TANK TOP TANGENT LINE FOR ATMOSPHERIC HYDRO TEST AND HOLD FOR FOUR (4) HRS.



750x750x25mm REPAD

SS LIFTING AND TAILING LUG

(2 LIFTING, 1 TAILING REQUIRED)

TANGENT LINE

CONTINUOUS

AROUND

VISION

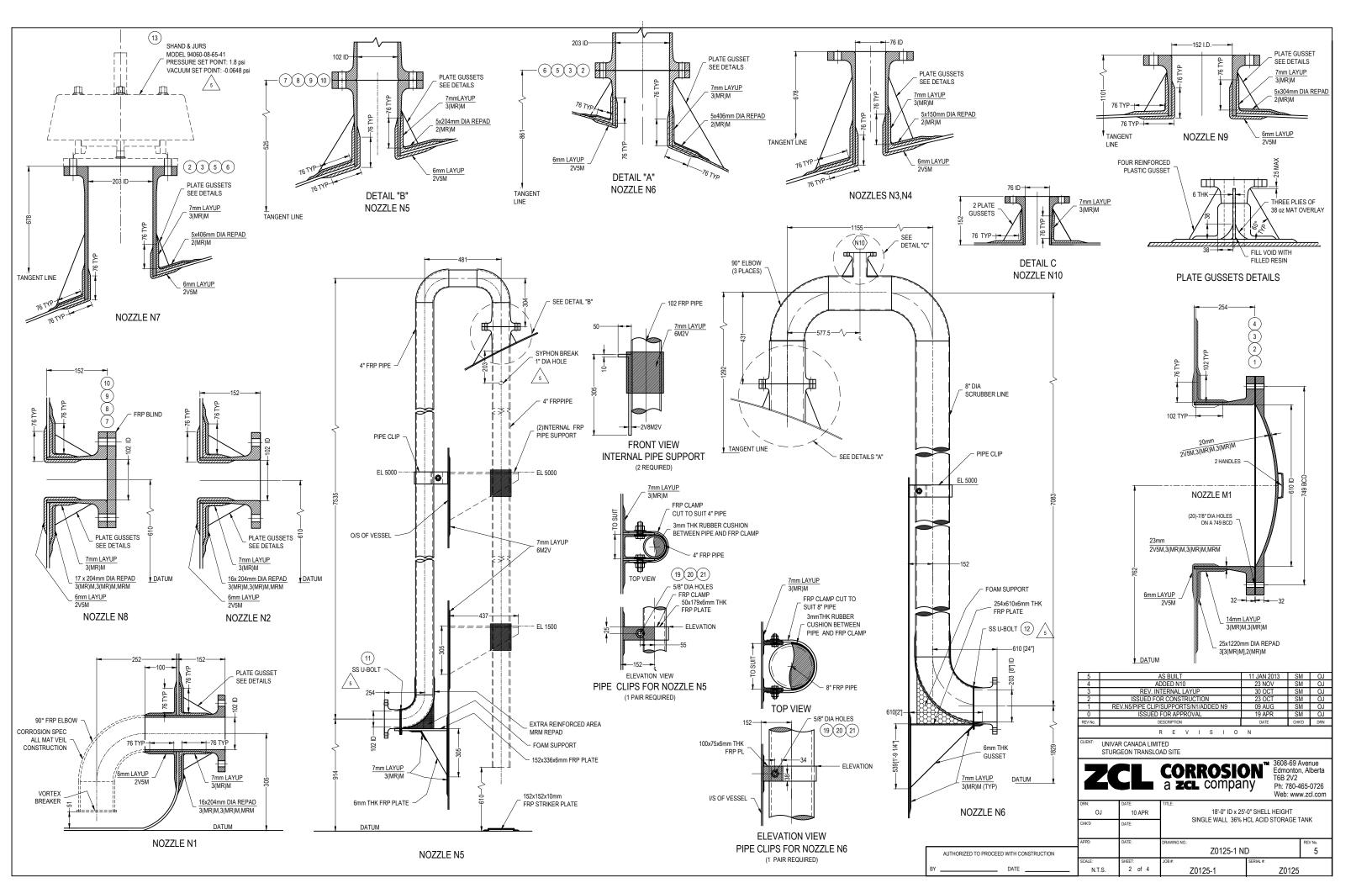
UNIVAR CANADA LIMITED

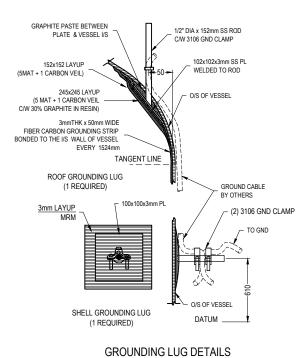
CORROSION a **ZCL** company

3608-69 Avenue Edmonton, Alberta Ph: 780-465-0726 Web: www.zcl.com

OJ 10 APR 18'-0" ID x 25'-0" SHELL HEIGHT SINGLE WALL 36% HCL ACID STORAGE TANK Z0125-1 GA N.T.S.

AUTHORIZED TO PROCEED WITH CONSTRUCTION

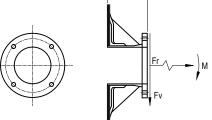




LOCATION @ 10°

OUTSIDE PURCHASE BILL OF MATERIALS BY ZCL

							_					
		SPEC	FINISH	MAT'L	DESCRIPTION	LENGTH	WIDTH	SIZE	O.D.	I.D.	QTY	ITEM TAG
	M2	A193-B7	CADMIUM	C.S.	HEAD HEX BOLTS	4 1/2"		3/4"			20	1
M2,N6,N7		A194-2H	CADMIUM	C.S.	HEAD HEX NUTS			3/4"			36	2
		F436	CADMIUM	C.S.	SAE FLAT WASHERS			3/4"			72	3
	M2	NA	NA	EPTFE	GASKETS (20-7/8" HOLES)			1/8"	32"	24"	1	4
17	N6,N7	A193-B7	CADMIUM	C.S.	HEAD HEX BOLTS	3 1/2"		3/4"			16	5
17	1 100,107	NA	NA	EPTFE	GASKETS 150#			1/8"		8"	2	6
		A193-B7	CADMIUM	C.S.	HEAD HEX BOLTS	3 1/2"		5/8"			16	7
10	NE NO	A194-2H	CADMIUM	C.S.	HEAD HEX NUTS			5/8"			16	8
N5,N8		F436	CADMIUM	C.S.	SAE FLAT WASHERS			5/8"			32	9
		NA	NA	EPTFE	GASKETS 150#			1/8"		4"	2	10
	N5			S.S.	5" U- BOLT						1	11
	N6			S.S.	10" U- BOLT						1	12
SHAND & JURS; MODEL 94060-08-65-41; PRESSURE SET POINT: 1.8 psi ; VACUUM SET POINT: -0.0648 psi N7								1	13			
PAINTING SPECIFICATION ON SHEET 4 OF 4		C.S.	LADDER						1	14		
				C.S.	LADDER LUG						8	15
ED.	LADDER	A193-B7	CADMIUM	C.S.	HEAD HEX BOLTS	2"		3/4"			16	16
EK	LADDER	A194-2H	CADMIUM	C.S.	HEAD HEX NUTS			3/4"		4	16	17
		F436	CADMIUM	C.S.	SAE FLAT WASHERS			3/4"			32	18
		A193-B7	CADMIUM	C.S.	HEAD HEX BOLTS	2"		1/2"			4	19
OR N5,N6	PIPE CLIPS FOR	A194-2H	CADMIUM	C.S.	HEAD HEX NUTS			1/2"			4	20
		F436	CADMIUM	C.S.	SAE FLAT WASHERS			1/2"			8	21



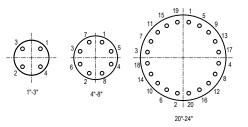
	d IN METERS (m)		
NOZZLE SIZE (INCHES)	ALLOWABLE RADIAL LOAD (Fr)	ALLOWABLE SHEAR Fv	ALLOWABLE COMBINED LOAD (M + d ·Fv)
2"	± 220 N	290 N	85 N-m
3"	± 330 N	330 N	100 N_m
4"	± 530 N	445 N	135 N-m
6"	± 620 N	555 N	170 N-m
8"	± 710 N	665 N	200 N-m
10"	± 800 N	775 N	235 N-m
12"	± 890 N	890 N	270 N-m

NOTES

- 1. THE ABOVE TABLE GIVES MAXIMUM LOADS ON A TANK NOZZLE DUE TO A SINGLE VALVE OR COMPONENT THE ABOVE TABLE GIVES MAXIMUM LOADS ON A TAWN NOZZLE DUE TO A SINGLE VALVE OR COMPONENT NOT CONNECTED AT AN EXTERNAL PIPING SYSTEM.
 RADIAL LOAD (Fr) MAY BE APPLIED EITHER WITH THE VERTICAL SHEAR (Fv) OR WITH THE COMBINED LOADS (M+ d Fv). PROVIDED THAT THE ALLOWABLE LOADS ARE NOT EXCEEDED.
 ALL EXTERNAL PIPING MUST BE SUPPORTED INDEPENDENTLY OF THE VESSEL UNLESS DESIGNED ON AN

- INDIVIDUAL BASIS.

 4. DESIGN OF NOZZLE LOADS FOR INDIVIDUAL CASES WILL BE DONE AT EXTRA COST AND REQUIRE THAT THE TOTAL LOAD SET BE SUBMITTED.



BOLT TORQUING SEQUENCE

RECOMENDED BOLT	TORQUES FOR	HAND LAYUP	FLANGES

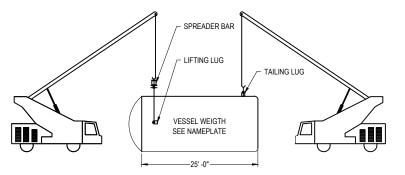
PIPE SIZE	BOLT DIA	TORQUE (N-m)	TORQUE (FT/LB)
2"	5/8"	27 N-m	20 FT/LB
3"	5/8"	27 N-m	20 FT/LB
4"	5/8"	27 N-m	20 FT/LB
6"	3/4"	33.9 N-m	25 FT/LB
8"	3/4"	33.9 N-m	25 FT/LB
MANWAYS	3/4"	33.9 N-m	25 FT/LB
GENERAL NOTES	ş.		

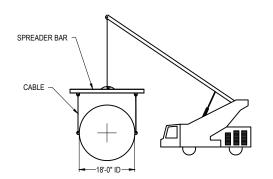
- WITH FELPRO CSA THREAD LUBRICATION OR EQUAL FLANGE BOLT TIGHTENING.
 ALLOY BOLTS TEND TO " GALL" SEIZE. MOLYBDENUM
- DISULFIDE BASE LUBRICANT MUST BE USED

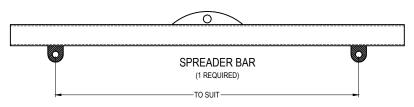
NOTES:

UP-RIGHTING FRP TANKS

- 1. HOOK TAIL CRANE TO TAILING LUG.
- 2. RIG FRONT CRANE TO SLINGS AND LIFTING LUGS AS SHOWN.
- 3. LIFT VESSEL WITH FRONT CRANE AND KEEP BOTTOM FROM TOUCHING THE GROUND WITH THE REAR CRANE.
- 4. ALL CONNECTION USE CLEVIS'S
- 5. TO LAY DOWN REVERSE PROCEDURES





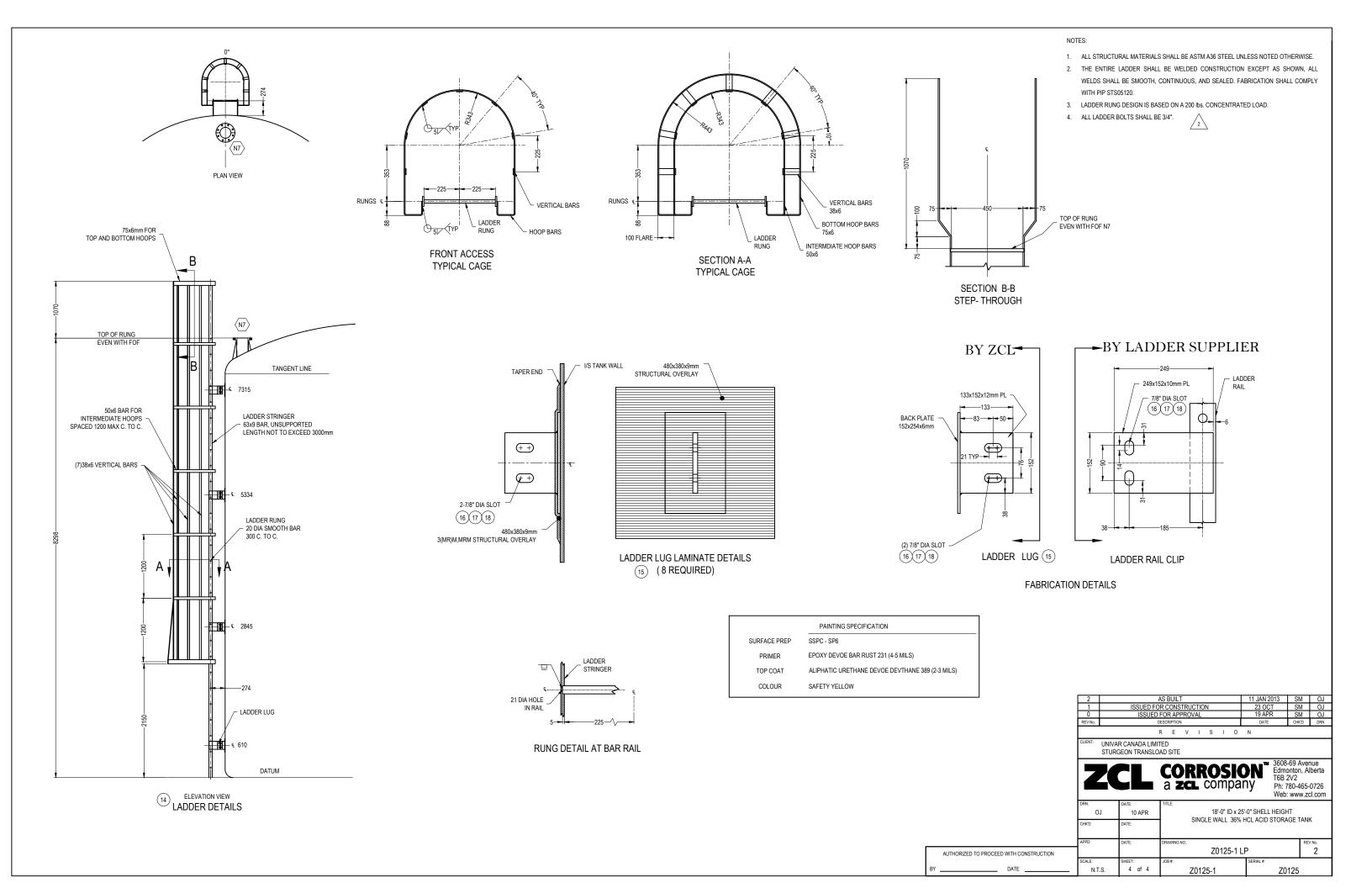


LIFTING PROCEDURE

AUTHORIZED TO PROCEED WITH CONSTRUCTION

4	AS BUILT	11 JAN 2013	SM	OJ		
3	REV BOM TAG/QUANTITY	30 OCT	SM	OJ		
2	ISSUED FOR CONSTRUCTION	23 OCT	SM	OJ		
1	ADDED GND LUG @ 270°	09 AUG	SM	OJ		
0	ISSUED FOR APPROVAL	19 APR	SM	OJ		
REV No.	DESCRIPTION	DATE	CHK'D	DRN		
R E V I S I O N						
CLIENT:	UNIVAR CANADA LIMITED STURGEON TRANSLOAD SITE					
ZCL CORROSION a 3608-69 Avenue Edmonton, Alberta Tida 2002 Company Ber 202 Ph: 780-465-0726						

			•	Web: www	w.zcl.cor	
	DRN:	DATE:	TITLE:			
	OJ	10 APR	18'-0" ID x 25'-0" SHELL HEIGHT SINGLE WALL 36% HCL ACID STORAGE TA			
	CHKID	DATE:	SINGLE WALL 30% F	ICL ACID STORAGE I	ANK	
	APPD:	DATE:	DRAWING NO.:		REV No.	
			Z0125-1 NE)L	4	
	SCALE:	SHEET:	JOB#:	SERIAL #:		
_	N.T.S.	3 of 4	Z0125-1	Z0125		





*SG is at 15 degress C Tanks can only be filled to 90% capacity

*SG is at 15 degress C <u>lanks can only be inled to</u>	30% capacity
Sylene SG = 0.8709 Max KG = 106,896 30,000 gal. 123 lt/cm Methanol SG = 0.7934 Max KG = 32,462 10,000 gal. 109 lt/cm	Van Sol 53 SG = 0.873 Max KG = 35,718 10,000 gal. 96 lt/cm MiBC SG = 0.810 Max KG = 101939 Max L = 125850 119.5 lt/cm
Acetone SG = 0.7943 Max KG 32,486 10,000 gal. 73 lt/cm Propyl Alcohol SG = 0.809 Max KG = 30624 10,000 gal. 109 lt/cm	Methyl Isobutyl Carbinol SG = 0.810 Max KG = 33,140 10,000 gal. 96 lt/cm Methanol SG = 0.7934 Max KG = 99,849 Max L = 125850 119.5 lt/cm Butanol SG = 0.8
3 Mineral Spirits SG = 0.788 Max KG = 32,240 10,000 gal. 73 lt/cm Ethyl Acetate SG = 0.897 Max KG = 36,700 10,000 gal. 73 lt/cm 73 lt/cm	Max KG = 16360 5,000 gal. Colorad 80/20 SG = 0.823 Max KG = 112887 Max L = 125850 119.5 lt/cm Propyl Alcohol
2 MIBC SG = 0.810 Max KG = 33,140 10,000 gal. 73 lt/cm Toluene SG = 0.870 Max KG = 35,595 10,000 gal. 73 lt/cm	SG = 0.809 Max KG = 16,549 5,000 gal. 16 Acetone SG = 0.7943 Max KG = 99963 Max L = 125850 119.5 lt/cm 17 Mineral Spirits SG = 0.788 Max KG = 57,423 Butyl Acetate
1 SWING 27,266 Liters 6,000 gal. 47 lt/cm Propyl Alcohol SG = 0.809 Max KG = $19,859$ 6,000 gal. 47 lt/cm Total tank farm capacity: $279,400$ gallons / $1,642,000$ liters (4.5444 L/Gal)	18,000 gal. 96.2 lt/cm SG = 0.88 Max KG = 110748 Max L = 125850 119.5 lt/cm Methanol SG = 0.7934 Max KG = 92,839 28,600 gal. 125.7 lt/cm Legend Piped into Blend Room Room

WN.0008 Date Issued: 08/05/2022 Supercedes: 07/30/2021

