



STI External Inspection Report



FACILITY: ADM-Fort Collins Rodelle Facility		FLOC #: 403377240	SAP EQUIP #: 3820361
EQUIPMENT #: 0300-TK-09	DESCRIPTION: Large Mix Tank (0300-TK-09)		
DESIGN CODE: ASME Sec. VIII Div.1	MFG.SN #: 861029	NATL BRD #:	P&ID #:
TYPE OF INSPECTION		INSPECTOR(S)	INSPECTION DATE
<input checked="" type="checkbox"/> - EXTERNAL <input checked="" type="checkbox"/> - UT SURVEY <input type="checkbox"/> - INTERNAL		Levi Whitney # 84647	3/20/2024



Equipment Overview Picture.

Access & Limitations:

This equipment is located in the Vanilla Production building. A Ladder will be needed to access the top of the head and shell.



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Inspection Summary:

Acuren Inspection completed A STI External Visual Inspection and UTT survey.

The vessel manufacturer is A L Stainless. Nameplate was attached but State of Colorado Jurisdictional paperwork / tag was not located at vessel. Manufacture drawings were provided, but no inspection test plan, U1A or inspection history were available for review. Further review by the company designee will need to be performed to ensure that any / all State of Colorado requirements have been satisfied.

Findings for this inspection:

- No inspection test plan, U1A or inspection history was available for review.
- No piping spec referenced on P&IDs provided.
- No State of Colorado Jurisdictional paperwork / tag was located on vessel.
- Stainless steel tank welded to carbon steel frame support. Dissimilar metal welds on equipment are considered to be an acceptable company practice.
- Heavy mechanical damage at tank shell handle. Metal has been peeled back on jacketing. Not detrimental to the normal service of the tank.

No issues observed during this inspection that would prevent this equipment from continued service at designed operating parameters.



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EXTERNAL INSPECTION		RATING					F/C	COMMENTS	
1.	Documentation	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input checked="" type="checkbox"/>	MI	ITP & Inspection history were not available for review. / No pipe spec available for review.	
2.	Nameplate	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input checked="" type="checkbox"/>	MI	Nameplate was attached & legible. / No State of Colorado Jurisdictional paperwork or tag were located.	
3.	Foundation	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Equipment foundation is building concrete slab, no adverse conditions at slab to equipment support legs.	
4.	Anchor Bolts & Supports	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Stainless steel tank welded to carbon steel frame support. Dissimilar metal welds on equipment are considered to be an acceptable company practice	
5.	Static Ground Connection	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Equipment is assumed to be grounded through building grounding system.	
6.	Top Head	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No signs of mechanical damage or bulging throughout the head. Circ welds appear to be full profile with no adverse conditions.	
7.	Shell	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>	5 <input type="checkbox"/>	DA	Heavy mechanical damage at tank shell handle. Metal has been peeled back on jacketing. Not detrimental to the normal service of the tank.	
8.	Bottom Head	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No signs of mechanical damage or bulging throughout the head. Circ welds appear to be full profile with no adverse conditions.	
9.	Ladders/Platforms	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No issues with stairs or platform.	
10.	Nozzles / Couplings	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No adverse conditions at nozzles.	
11.	Flanges	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No issues with flange wingnut clamp bolt up.	
12.	Bolting/Gaskets	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Wingnut clamps are sealed, and there is no visual access to gasket. No adverse conditions.	
13.	Small Piping Connections	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No adverse conditions at small bore piping branch bolt up.	
14.	Insulation/Jacketing	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		N/A Equipment not insulated.	
15.	Evidence of CUI	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		N/A Equipment not insulated.	
16.	Paint/Coating	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		N/A Equipment is not coated.	
17.	Evidence of leakage	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No signs of leaking at nozzle bolt ups or gaskets.	
18.	Evidence of corrosion	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No signs of corrosion throughout equipment heads or shell.	
19.	Instrumentation/Gauges	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No issues with instrumentation or gauges.	
20.	Valves	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		No valves installed before equipment flange.	
21.	Davit Arm	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		N/A	
22.	UTT Survey	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Refer to UTT survey for results and remaining life calcs.	
23.	Other (Caution Sign)	1 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Sign in place.	
24.	Primary Relief Device	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Set Pressure:	Test Date:
25.	Secondary Relief Device	1 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>		Set Pressure:	Test Date:

RATINGS: 1) Not Applicable 2) No Findings 3) Not Inspected 4) Within Acceptable Limits 5) Needing Repair or Replacement

Fault Codes

C/A – Corrosion Active ER – Eroded/Worn
 C/I – Corrosion Inactive FO – Fouled/Deposits
 CR - Cracked ID – Improper design/Installation
 TR- Temporary Repair DA – Damaged/Broken
 WM – Wrong Material/Component LK- Leak

Corresponding Damage	Coating Condition
L – Light (Up to 1/32" Deep)	F – Fair (Light Oxidation)
MI – Missing	M – Moderate (Up to 1/8" Deep)
PC – Coating Condition	P- Poor (Active Corrosion)
S – Severe (> 1/8" Deep)	R – Required Repair
	RR – Required Replacement



STI External Inspection Report



Historical Records Review:

This baseline inspection will be the start of the equipment's permanent and progressive records.

External Visual Inspection Details:

2023 Inspection was an External Visual Inspection.

1. **Documentation:** ITP & Inspection history were not available for review. / No pipe spec available for review.
2. **Nameplate:** Nameplate was attached & legible. / No State of Colorado Jurisdictional paperwork or tag were located.
3. **Foundation:** Equipment foundation is building concrete slab, no adverse conditions at slab to equipment support legs.
4. **Anchor Bolts & Supports:** Stainless steel tank welded to carbon steel frame support. Dissimilar metal welds on equipment are considered to be an acceptable company practice.
5. **Static Ground Connection:** Equipment is assumed to be grounded through building grounding system.
6. **Top Head:** No signs of mechanical damage or bulging throughout the head. Circ welds appear to be full profile with no adverse conditions.
7. **Shell:** Heavy mechanical damage at tank shell handle. Metal has been peeled back on jacketing. Not detrimental to the normal service of the tank.
8. **Bottom Head:** No signs of mechanical damage or bulging throughout the head. Circ welds appear to be full profile with no adverse conditions.
9. **Ladders/Platforms:** No issues with stairs or platform.
10. **Nozzles/Couplings:** No adverse conditions at nozzles.
11. **Flanges:** No issues with flange wingnut clamp bolt up.
12. **Bolting/Gaskets:** Wingnut clamps are sealed, and there is no visual access to gasket. No adverse conditions.
13. **Small Piping Connections:** No adverse conditions at small bore piping branch bolt up.
14. **Insulation/Jacketing:** N/A Equipment not insulated.
15. **Evidence of CUI:** N/A Equipment not insulated.
16. **Paint/Coating:** N/A Equipment is not coated.
17. **Evidence of leakage:** No signs of leaking at nozzle bolt ups or gaskets.
18. **Evidence of Corrosion:** No signs of corrosion throughout equipment heads or shell.
19. **Instrumentation/Gauges:** No issues with instrumentation or gauges.
20. **Valves:** No valves installed before equipment flange.
21. **Davit Arm:** N/A
22. **UTT Survey:** Refer to UTT survey for results and remaining life calcs.
23. **Caution Sign:** Sign in place.
24. **Primary Relief Device:** N/A
25. **Secondary Relief Device:** N/A

Inspection Findings:		SAP Priorities:	0 = Immediate		1 = Less Than 1 Week	
		2 = Less Than 3 Weeks	3 = Less Than 6 Weeks	4 = Opportunity/Fill In		
Ref. #	Finding	Corrective Action		Code Reference	SAP Notification	Priority



STI External Inspection Report



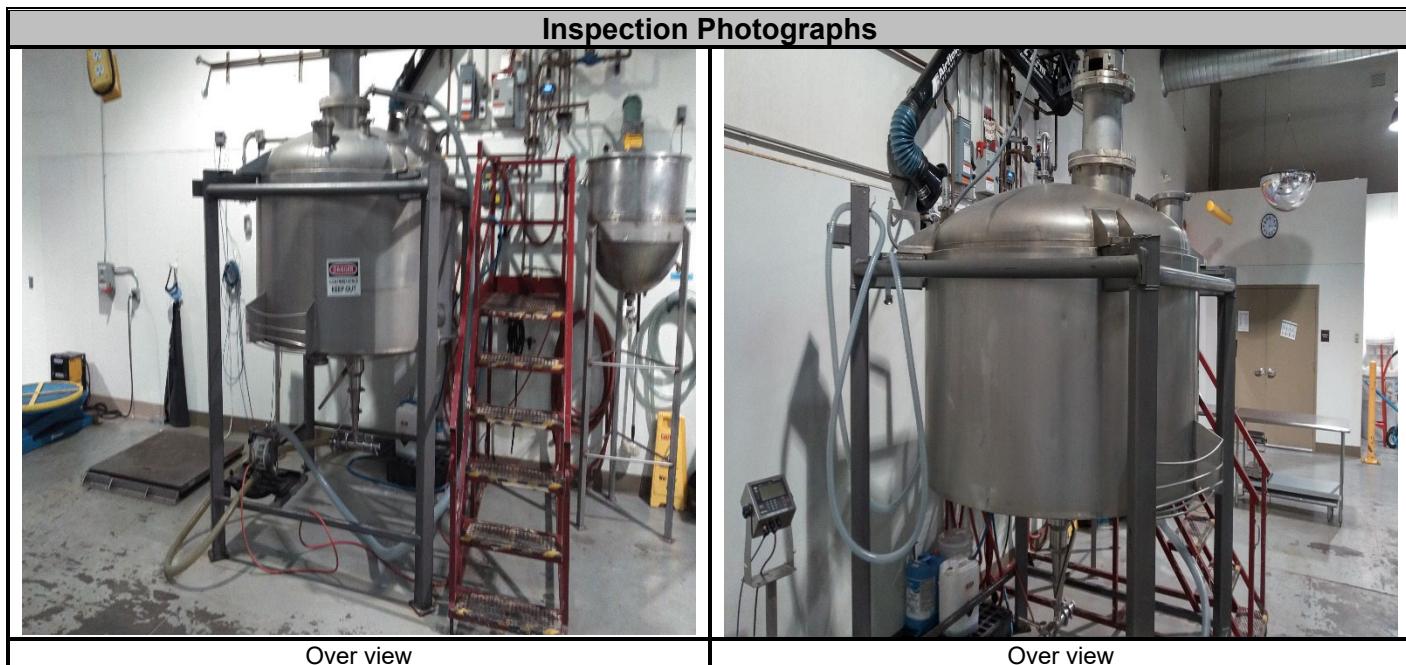
1	Inspection test plan and inspection history were not provided for review.	Provide inspection test plan and inspection history for future inspections.	API 510, Sec 7.8.2	<input type="checkbox"/> Yes <input type="checkbox"/> No	4
1	Piping specification referenced on P&IDs was not provided for review.	Provide piping spec referenced on P&IDs for future inspections.	Good Industry Practices	<input type="checkbox"/> Yes <input type="checkbox"/> No	4
2	State of Colorado Jurisdictional Paperwork / Tag not present.	Ensure operating permit inspections for equipment are current with the State of Colorado and have new Tag installed at time of next state required inspection.	Code Of Colorado Regulations 7 CCR 1101-5	<input type="checkbox"/> Yes <input type="checkbox"/> No	4
7	Heavy mechanical damage at tank shell handle. Metal has been peeled back on jacketing.	Continue to monitor for further damage and indications at next inspection interval.	Good Industry Practices	<input type="checkbox"/> Yes <input type="checkbox"/> No	4

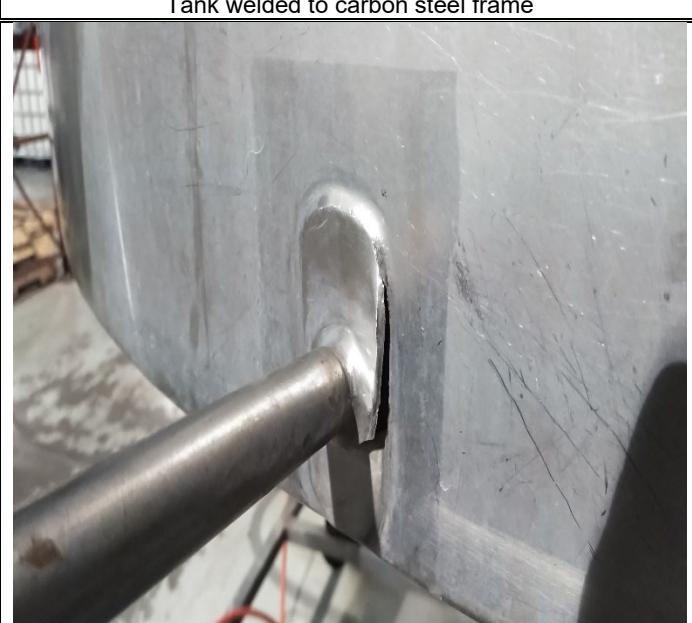
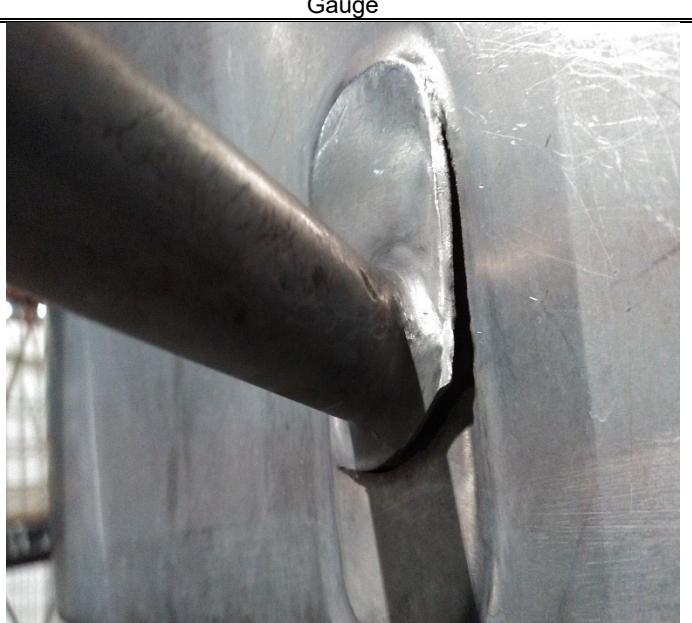
Inspector Signature:

Certification #: 84647

Reviewing Inspector:

Certification #:



	
Tank welded to carbon steel frame	Gauge
	
Jacketing handle mechanical damage	Jacketing handle mechanical damage



Tank top head



Top head hatch

**ACUREN**

Acuren Inspection Inc.
2460 Towerview Drive
Neenah, WI, USA 54956
www.acuren.com

Company Name: ADM - RODELLE
Location: FORT COLLINS, CO
Inspection Date: March 29, 2024
External Method: UT, VT
Print Date: May 10, 2024

API 653 Low Pressure Storage Tank Report For:
Equipment No.: Large Mix Tank

Equipment Name: Large Mix Tank (0300-TK-09)

Area: Extraction

Service/Product: N/A

Manufacturer: N/A

Mfr. Dwg. No.: N/A

Mfr. Date: Jan 01, 2013

Serial #: N/A

National Bd. #: N/A

Registration #: N/A

Insurance #: N/A

External Class: User Defined: (10 Years)

Internal Class: User Defined: (10 Years)

Design Press.: N/A **psig**

Design MAWP: 15, 15 **psig**

Design Temp.: N/A **°F**

Press. Relief Setting: N/A **psig**

Inspection Company: Acuren Inspection Inc.

Inspector(s) **Cert. Level(s)**

Armstrong, Kurt MT-II, PT-II, RT-II, UT-II, VT-II, API 570, PMI

Anderson, Cole MT-II, PT-II, RT-II, UT-IIL, PMI

Whitney, Levi API 510, API 570, API 653

Signature:

EXTERNAL INSPECTIONS

Thickness Insp. Due: Mar 29, 2034 ¹

Visual [User Defined] Due: Mar 29, 2029 ²

¹ Thickness Insp. Due set to 'User Defined'.

Warning: 'User Defined' value is after DMAPS calculated result of Mar 29, 2029

Authorizing Personnel: Jon Fleming: Bypass DMAPS calculated date when CML data is missing or higher than nominal.

² Method set to 'User Defined'. Warning: 'User Defined' value is after the frequency calculated result of Mar 29, 2028

Authorizing Personnel: Jon Fleming: Bypass DMAPS calculated date when CML data is missing or higher than nominal.

API 653 Low Pressure Storage Tank Report For: Equipment No.: Large Mix Tank

Equipment and Calibration: Olympus 38DL Plus thickness gauges and Olympus D790-SM 5 MHz 0.375" transducers along with Sonoglide FE-20 couplant were utilized for the ultrasonic thickness examinations.

DMAPS software was utilized for calculations and reporting of data.

Static Data Assumptions: If ADM facilities fail to provide static data for required DMAPS calculated values on the equipment examined, a 70% of assumed nominal thickness will be used as a flag value in the reports. Further engineering should be performed by Archer Daniels Midland (ADM) mechanical integrity and engineering personnel to determine suitability for continued service.

Nominal thickness values will be assumed based on the readings obtained from the examination and the nearest average value on ASTM standard pipe wall and plate steel gauge thickness charts.

Order of Acknowledgement: The agreement of Acuren Inspection to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested inspection of specific equipment and the preparation of reports or similar documents reflecting the inspection data obtained or the opinion formulated on the basis of such inspection. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinion or observations of the examiner and are not intended nor can they be construed as representations or warranties as to the actual circumstances. Acuren Inspection is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, repair and use decisions as a result of the inspection data or other information provided by Acuren Inspection. In no event shall Acuren Inspection's liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care:

In performing the services provided, Acuren Inspection uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Inspection.

Limitations of Liability:

Nothing in this Agreement shall be construed to mean that Acuren Inspection assumes any liability on account of injury to persons or property, including death, except those directly caused by negligent acts of Acuren Inspection or its employees and that Purchaser's own responsibility for injury to persons or properties while on or about Purchaser's equipment is in no way affected by this Agreement. Acuren Inspection shall not be held responsible or liable for any loss, damage, detention or delay caused by accidents, strikes, lock-outs, fire, flood, acts of civil or military authorities, or by insurrection or riot, or by any other cause that is unavoidable or beyond Acuren Inspection's control or in any event for consequential damages.

COMPONENT OVERVIEW REPORT
Equipment No.: Large Mix Tank

Inspection Date: March 29, 2024

GENERAL INFORMATION

Equipment Name: Large Mix Tank (0300-TK-09)

Risk Class: User Def.: (10 Years)

EXTERNAL OVERVIEW

Component Overview					Corrosion Rate Overview						Summary				
					Short Term [S]			Long Term [L]							
Group	Component Name	Min. Rdg. (in.)	Max. Rdg. (in.)	Avg. Rdg. (in.)	Avg. Corr. (mils/yr)	Max. Corr. (mils/yr)	Rem. Life (yrs)	Avg. Corr. (mils/yr)	Max. Corr. (mils/yr)	Rem. Life (yrs)	Gov. Corr. Rate	Corr. Rate Mult.	Next Insp. Date	MAWP* at Rdg (psig)	Retirement Date
H01	Top Head	0.109	0.123	0.112	N/A	N/A	Rdg >= Prev Rdg	N/A	N/A	Rdg >= Prev Rdg		x1	03/29/2034	15	N/A
H02	Bottom Jacket Head	0.079	0.082	0.080	N/A	N/A	Rdg >= Prev Rdg	N/A	N/A	Rdg >= Prev Rdg		x1	03/29/2034	15	N/A
N01	N01	0.000	0.000	0.000	N/A	N/A	No T-flag	N/A	N/A	No T-flag		x1	03/29/2034	N/A	N/A
N02	N02	0.131	0.135	0.133	0.18	0.27	>20	0.18	0.27	>20		x1	03/29/2034	15	>20 Years
N03	N03	0.000	0.000	0.000	N/A	N/A	No T-flag	N/A	N/A	No T-flag		x1	03/29/2034	N/A	N/A
N04	N04	0.123	0.126	0.124	0.12	0.18	>20	0.12	0.18	>20		x1	03/29/2034	15	>20 Years
N05	N05	0.066	0.067	0.067	N/A	N/A	Rdg >= Prev Rdg	N/A	N/A	Rdg >= Prev Rdg		x1	03/29/2034	15	N/A
N06	N06	0.068	0.072	0.070	N/A	N/A	Rdg >= Prev Rdg	N/A	N/A	Rdg >= Prev Rdg		x1	03/29/2034	15	N/A
N07	N07	0.000	0.000	0.000	N/A	N/A	No T-flag	N/A	N/A	No T-flag		x1	03/29/2034	N/A	N/A
N08	N08	0.000	0.000	0.000	N/A	N/A	No T-flag	N/A	N/A	No T-flag		x1	03/29/2034	N/A	N/A
N09	N09	0.063	0.067	0.065	0.18	0.18	>20	0.18	0.18	>20		x1	03/29/2034	15	>20 Years
N10	N10	0.000	0.000	0.000	N/A	N/A	No T-flag	N/A	N/A	No T-flag		x1	03/29/2034	N/A	N/A
S01	Shell	0.082	0.110	0.096	0.86	1.04	16	0.86	1.04	16		x1	03/29/2034	15	03/29/2040
S02	Jacket Shell	0.062	0.079	0.070	0.04	0.04	>20	0.04	0.04	>20		x1	03/29/2034	15	>20 Years
Total					0.28	1.04	16	0.28	1.04	16			03/29/2034	15	03/29/2040

Component Overview Legend

- Greater than (T-min + CorAlw / 2)
- Greater than T-min, but less than or equal to (T-min + CorAlw / 2)
- Less than or equal to T-min

Note: Values in [Brackets] are from a previous Inspection

Corrosion Rate Overview Legend

- 0 - N/A
- Greater than 0, but less than or equal to 10 (mils/yr)
- Greater than 10, but less than or equal to 20 (mils/yr)
- Greater than 20 (mils/yr)

Note: Values in [Brackets] are from a previous Inspection

Gov. Corr. Rate Code

UD = User Defined
UN = Unused
UL = User Long Term
US = User Short Term

MAWP

■ > 25% + O.P.
■ ≤ 25% + O.P.
■ ≤ 10% + O.P.
■ < O.P. [] = User Defined

Based on simple calculations.
See Calculation Report

Ret. Date Legend

- Greater Than 30 Days
- Within 30 Days
- Past Due

EXTERNAL CML REPORT

Test Point	CML Number	T-nominal (in.)	T-min (in.)	Corrosion Rate (mils/yr)	MAWP at Rdg (psig)	Base		Previous		Current Reading (in.)	Total Wall Loss %	Retirement Date
						Thickness (in.)	Date	Thickness (in.)	Date			
001	H02-+2"-000°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.082	N/A	Rdg >= Prev Rdg
002	H02-+2"-090°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.080	N/A	Rdg >= Prev Rdg
003	H02-+2"-180°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.080	N/A	Rdg >= Prev Rdg
004	H02-+2"-270°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.079	N/A	Rdg >= Prev Rdg
005	H02-+20"-000°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.081	N/A	Rdg >= Prev Rdg
006	H02-+20"-090°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.081	N/A	Rdg >= Prev Rdg
007	H02-+20"-180°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.080	N/A	Rdg >= Prev Rdg
008	H02-+20"-270°	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.080	N/A	Rdg >= Prev Rdg
009	H02-C/L	0.078	0.055	N/A	15	0.078	01/01/2013	0.078	01/01/2013	0.079	N/A	Rdg >= Prev Rdg
010	S02-+2"-000°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.077	N/A	Rdg >= Prev Rdg
011	S02-+2"-090°	0.063	0.044	0.04 [LS]	15	0.063	01/01/2013	0.063	01/01/2013	0.062	0.8%	>20 Years
012	S02-+2"-180°	0.063	0.044	0.04 [LS]	15	0.063	01/01/2013	0.063	01/01/2013	0.062	0.8%	>20 Years
013	S02-+2"-270°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.078	N/A	Rdg >= Prev Rdg
014	S02-C/L-000°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.078	N/A	Rdg >= Prev Rdg
015	S02-C/L-090°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.063	N/A	Rdg >= Prev Rdg
016	S02-C/L-180°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.063	N/A	Rdg >= Prev Rdg
017	S02-C/L-270°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.078	N/A	Rdg >= Prev Rdg
018	S02-+33"-000°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.075	N/A	Rdg >= Prev Rdg
019	S02-+33"-090°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.063	N/A	Rdg >= Prev Rdg
020	S02-+33"-180°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.063	N/A	Rdg >= Prev Rdg
021	S02-+33"-270°	0.063	0.044	N/A	15	0.063	01/01/2013	0.063	01/01/2013	0.079	N/A	Rdg >= Prev Rdg
022	S01-+35.5"-000°	0.094	0.066	1.04 [LS]	15	0.094	01/01/2013	0.094	01/01/2013	0.082	12.5%	03/29/2040
023	S01-+35.5"-090°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.110	N/A	Rdg >= Prev Rdg
024	S01-+35.5"-180°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.106	N/A	Rdg >= Prev Rdg
025	S01-+35.5"-270°	0.094	0.066	0.68 [LS]	15	0.094	01/01/2013	0.094	01/01/2013	0.086	8.2%	>20 Years

T-min Color Legend	Corrosion Rate Color Legend	MAWP	CML/Readings Color Legend	Ret. Date Legend
■ Black for Calculated	■ 0 - N/A	■ > 25% + O.P.	■ Greater than (T-min + CorAlw / 2)	■ > 5 Years
■ [Black for Structural Min]	■ Greater than 0, but less than or equal to 10 (mils/yr)	■ ≤ 25% + O.P.	■ Greater than T-min, but less than or equal to (T-min + CorAlw / 2)	■ 1 to 5 Years
■ [Purple for Structural Alert]	■ Greater than 10, but less than or equal to 20 (mils/yr)	■ ≤ 10% + O.P.	■ Less than or equal to T-min	■ 30 Days to 1 Year
■ Purple for user Defined	■ Greater than 20 (mils/yr)	■ < O.P. [] = User Defined	■ Wall Loss Color Legend	■ < 30 Days

Note: [L] = Long Term, [S] = Short Term, [UD] = User Def.

Based on simple calculations.
See Calculation Report.

* Total % Wall Loss from T-Nominal value.

EXTERNAL CML REPORT (Continued)

Test Point	CML Number	T-nominal (in.)	T-min (in.)	Corrosion Rate (mils/yr)	MAWP at Rdg (psig)	Base		Previous		Current Reading (in.)	Total Wall Loss %	Retirement Date
						Thickness (in.)	Date	Thickness (in.)	Date			
026	H01-+6"-000°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.111	N/A	Rdg >= Prev Rdg
027	H01-+6"-090°	0.094	0.066	N/A	Unknown	0.094	01/01/2013	0.094	01/01/2013	N/A	N/A	No Rdgs
028	H01-+6"-180°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.110	N/A	Rdg >= Prev Rdg
029	H01-+6"-270°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.109	N/A	Rdg >= Prev Rdg
030	H01-+20"-000°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.111	N/A	Rdg >= Prev Rdg
031	H01-+20"-090°	0.094	0.066	N/A	Unknown	0.094	01/01/2013	0.094	01/01/2013	N/A	N/A	No Rdgs
032	H01-+20"-180°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.114	N/A	Rdg >= Prev Rdg
033	H01-+20"-270°	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.109	N/A	Rdg >= Prev Rdg
034	H01-C/L	0.094	0.066	N/A	15	0.094	01/01/2013	0.094	01/01/2013	0.123	N/A	Rdg >= Prev Rdg
035	N01-000°	0.322	0.000	N/A	Unknown	0.322	01/01/2013	0.322	01/01/2013	N/A	N/A	No T-flag
036	N01-090°	0.322	0.000	N/A	Unknown	0.322	01/01/2013	0.322	01/01/2013	N/A	N/A	No T-flag
037	N01-180°	0.322	0.000	N/A	Unknown	0.322	01/01/2013	0.322	01/01/2013	N/A	N/A	No T-flag
038	N01-270°	0.322	0.000	N/A	Unknown	0.322	01/01/2013	0.322	01/01/2013	N/A	N/A	No T-flag
039	N02-000°	0.134	0.094	N/A	15	0.134	01/01/2013	0.134	01/01/2013	0.135	N/A	Rdg >= Prev Rdg
040	N02-090°	0.134	0.094	0.27 [LS]	15	0.134	01/01/2013	0.134	01/01/2013	0.131	2.2%	>20 Years
041	N02-180°	0.134	0.094	N/A	Unknown	0.134	01/01/2013	0.134	01/01/2013	N/A	N/A	No Rdgs
042	N02-270°	0.134	0.094	0.09 [LS]	15	0.134	01/01/2013	0.134	01/01/2013	0.133	0.7%	>20 Years
043	N03-000°	0.133	0.000	N/A	Unknown	0.133	01/01/2013	0.133	01/01/2013	N/A	N/A	No T-flag
044	N03-090°	0.133	0.000	N/A	Unknown	0.133	01/01/2013	0.133	01/01/2013	N/A	N/A	No T-flag
045	N03-180°	0.133	0.000	N/A	Unknown	0.133	01/01/2013	0.133	01/01/2013	N/A	N/A	No T-flag
046	N03-270°	0.133	0.000	N/A	Unknown	0.133	01/01/2013	0.133	01/01/2013	N/A	N/A	No T-flag
047	N04-000°	0.125	0.088	N/A	15	0.125	01/01/2013	0.125	01/01/2013	0.126	N/A	Rdg >= Prev Rdg
048	N04-090°	0.125	0.088	0.09 [LS]	15	0.125	01/01/2013	0.125	01/01/2013	0.124	0.8%	>20 Years
049	N04-180°	0.125	0.088	0.18 [LS]	15	0.125	01/01/2013	0.125	01/01/2013	0.123	1.6%	>20 Years
050	N04-270°	0.125	0.088	0.09 [LS]	15	0.125	01/01/2013	0.125	01/01/2013	0.124	0.8%	>20 Years

T-min Color Legend	Corrosion Rate Color Legend	MAWP	CML/Readings Color Legend	Ret. Date Legend
■ Black for Calculated	■ 0 - N/A	■ > 25% + O.P.	■ Greater than (T-min + CorAlw / 2)	■ > 5 Years
■ [Black for Structural Min]	■ Greater than 0, but less than or equal to 10 (mils/yr)	■ ≤ 25% + O.P.	■ Greater than T-min, but less than or equal to (T-min + CorAlw / 2)	■ 1 to 5 Years
■ [Purple for Structural Alert]	■ Greater than 10, but less than or equal to 20 (mils/yr)	■ ≤ 10% + O.P.	■ Less than or equal to T-min	■ 30 Days to 1 Year
■ Purple for user Defined	■ Greater than 20 (mils/yr)	■ < O.P. [] = User Defined	■ Wall Loss Color Legend	■ < 30 Days

Note: [L] = Long Term, [S] = Short Term, [UD] = User Def.

Based on simple calculations.
See Calculation Report.

* Total % Wall Loss from T-Nominal value.

EXTERNAL CML REPORT (Continued)

Test Point	CML Number	T-nominal (in.)	T-min (in.)	Corrosion Rate (mils/yr)	MAWP at Rdg (psig)	Base		Previous		Current Reading (in.)	Total Wall Loss %	Retirement Date
						Thickness (in.)	Date	Thickness (in.)	Date			
051	N05-000°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.067	N/A	Rdg >= Prev Rdg
052	N05-090°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.067	N/A	Rdg >= Prev Rdg
053	N05-180°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.066	N/A	Rdg >= Prev Rdg
054	N05-270°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.067	N/A	Rdg >= Prev Rdg
055	N06-000°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.068	N/A	Rdg >= Prev Rdg
056	N06-090°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.069	N/A	Rdg >= Prev Rdg
057	N06-180°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.072	N/A	Rdg >= Prev Rdg
058	N06-270°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.069	N/A	Rdg >= Prev Rdg
059	N07-000°	0.280	0.000	N/A	Unknown	0.280	01/01/2013	0.280	01/01/2013	N/A	N/A	No T-flag
060	N07-090°	0.280	0.000	N/A	Unknown	0.280	01/01/2013	0.280	01/01/2013	N/A	N/A	No T-flag
061	N07-180°	0.280	0.000	N/A	Unknown	0.280	01/01/2013	0.280	01/01/2013	N/A	N/A	No T-flag
062	N07-270°	0.280	0.000	N/A	Unknown	0.280	01/01/2013	0.280	01/01/2013	N/A	N/A	No T-flag
063	N08-000°	0.375	0.000	N/A	Unknown	0.375	01/01/2013	0.375	01/01/2013	N/A	N/A	No T-flag
064	N08-090°	0.375	0.000	N/A	Unknown	0.375	01/01/2013	0.375	01/01/2013	N/A	N/A	No T-flag
065	N08-180°	0.375	0.000	N/A	Unknown	0.375	01/01/2013	0.375	01/01/2013	N/A	N/A	No T-flag
066	N08-270°	0.375	0.000	N/A	Unknown	0.375	01/01/2013	0.375	01/01/2013	N/A	N/A	No T-flag
067	N09-000°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.066	N/A	Rdg >= Prev Rdg
068	N09-090°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.065	N/A	Rdg >= Prev Rdg
069	N09-180°	0.065	0.046	N/A	15	0.065	01/01/2013	0.065	01/01/2013	0.067	N/A	Rdg >= Prev Rdg
070	N09-270°	0.065	0.046	0.18 [LS]	15	0.065	01/01/2013	0.065	01/01/2013	0.063	3.1%	>20 Years
071	N10-000°	0.216	0.000	N/A	Unknown	0.216	01/01/2013	0.216	01/01/2013	N/A	N/A	No T-flag
072	N10-090°	0.216	0.000	N/A	Unknown	0.216	01/01/2013	0.216	01/01/2013	N/A	N/A	No T-flag
073	N10-180°	0.216	0.000	N/A	Unknown	0.216	01/01/2013	0.216	01/01/2013	N/A	N/A	No T-flag
074	N10-270°	0.216	0.000	N/A	Unknown	0.216	01/01/2013	0.216	01/01/2013	N/A	N/A	No T-flag

T-min Color Legend	Corrosion Rate Color Legend	MAWP	CML/Readings Color Legend	Ret. Date Legend
■ Black for Calculated	■ 0 - N/A	■ > 25% + O.P.	■ Greater than (T-min + CorAlw / 2)	■ > 5 Years
■ [Black for Structural Min]	■ Greater than 0, but less than or equal to 10 (mils/yr)	■ ≤ 25% + O.P.	■ Greater than T-min, but less than or equal to (T-min + CorAlw / 2)	■ 1 to 5 Years
■ [Purple for Structural Alert]	■ Greater than 10, but less than or equal to 20 (mils/yr)	■ ≤ 10% + O.P.	■ Less than or equal to T-min	■ 30 Days to 1 Year
■ Purple for user Defined	■ Greater than 20 (mils/yr)	■ < O.P. [] = User Defined	■ Wall Loss Color Legend	■ < 30 Days
Note: [L] = Long Term, [S] = Short Term, [UD] = User Def.		Based on simple calculations. See Calculation Report		* Total % Wall Loss from T-Nominal value.

LOW PRESSURE STORAGE TANK STATIC INFORMATION

Equipment No.: Large Mix Tank

GENERAL INFORMATION

Equipment No.:	Large Mix Tank	Manufacturer:	N/A	Service:	N/A
Equipment Name:	Large Mix Tank (0300-TK-09)	Manufacture Date:	Jan 01, 2013	Ext. Risk Class:	User Def.: (10 Years)
Serial #:	N/A	Mfr. Drawing No.:	N/A	Int. Risk Class:	User Def.: (10 Years)
National Bd. #:	N/A	Insurance #:	N/A	Orientation:	Vertical
Area/Unit:	Extraction	Registration #:	N/A		

TANK INFORMATION

Design Liquid Level:	N/A	Specific Gravity:	N/A	Insulation:	N/A
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HEAD INFORMATION

Number of Components: 1

Head Number	Install Date	Head Type	Head ID (in.)	Head Material	Allow. Stress (ksi)	Joint Eff.	Corr. Allow. (in.)	Thickness (in.)		Design		Operating		MAWP (psig)	½ Cone Apex Angle	Knuckle Radius (in.)	Crown Radius (in.)
								Nom.	Min.	Press. (psig)	Temp. °F	Press. (psig)	Temp. °F				
1 Top	Jan 01, 2013	2:1 Ellipsoidal	63.813	STD STNLS STL	18.8	0.85	0.000	0.094	0.066	N/A	100	N/A	N/A	15	N/A	N/A	N/A
Comments: Assumed All Static Data																	

SHELL INFORMATION

Number of Components: 1

Shell Number	Install Date	Shell Height (ft)	Shell ID (in.)	Shell Material	Allow. Stress (ksi)	Joint Eff.	Corr. Allow. (in.)	Thickness (in.)		Design		Operating		Hydro Test Press. (psig)	MAWP (psig)
								Nom.	Min.	Press. (psig)	Temp. °F	Press. (psig)	Temp. °F		
1	Jan 01, 2013	3	63.813	STD STNLS STL	18.8	0.70	0.000	0.094	0.066	N/A	100	N/A	N/A	N/A	15
Comments: Assumed All Static Data															

JACKET INFORMATION

Design Liquid Level:	N/A	Specific Gravity:	N/A	Insulation:	N/A
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JACKET HEAD INFORMATION

Number of Components: 1

Head Number	Install Date	Head Type	Head ID (in.)	Head Material	Allow. Stress (ksi)	Joint Eff.	Corr. Allow. (in.)	Thickness (in.)		Design		Operating		MAWP (psig)	½ Cone Apex Angle	Knuckle Radius (in.)	Crown Radius (in.)
								Nom.	Min.	Press. (psig)	Temp. °F	Press. (psig)	Temp. °F				
1 Bottom	Jan 01, 2013	Conical	65.844	STD STNLS STL	18.8	0.85	0.000	0.078	0.055	N/A	100	N/A	N/A	15	15	N/A	N/A
Comments: Assumed All Static Data																	

LOW PRESSURE STORAGE TANK STATIC INFORMATION

Equipment No.: Large Mix Tank

JACKET SHELL INFORMATION

Number of Components: 1

Shell Number	Install Date	Shell Height (ft)	Shell ID (in.)	Shell Material	Allow. Stress (ksi)	Joint Eff.	Corr. Allow. (in.)	Thickness (in.)		Design		Operating		Hydro Test Press. (psig)	MAWP (psig)
								Nom.	Min.	Press. (psig)	Temp. °F	Press. (psig)	Temp. °F		
1	Jan 01, 2013	35	65.875	STD STNLS STL	18.8	0.70	0.000	0.063	0.044	N/A	100	N/A	N/A	N/A	15
Comments: Assumed All Static Data															

NOZZLE STATIC DATA SHEET
Equipment No.: Large Mix Tank

Equipment Name: Large Mix Tank (0300-TK-09)

NOZZLE INFORMATION

Number of Nozzles: 10

Nozzle Name	Nozzle Purpose	Nozzle Install Date	Attached To	Height / Location	Nozzle Material	Joint Eff.	Nozzle		Corr. Allow. (in.)	Thickness (in.)	
							O.D.(in.)	Sch.		Nom.	Min.
N01	N/A	Jan 01, 2013	H02	N/A	STD STNLS STL	0.70	8.625	STD	N/A	0.322	N/A
Comments: Assumed All Static Data											
N02	N/A	Jan 01, 2013	H02	N/A	STD STNLS STL	0.70	6.625	10	0.0000	0.134	0.094
Comments: Assumed All Static Data											
N03	N/A	Jan 01, 2013	S02	N/A	STD STNLS STL	0.70	1.315	STD	0.0000	0.133	N/A
Comments: Assumed All Static Data											
N04	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	16.00	C1	0.0000	0.125	0.088
Comments: Assumed All Static Data											
N05	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	2.00	CTM	0.0000	0.065	0.046
Comments: Assumed All Static Data											
N06	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	3.00	5	0.0000	0.065	0.046
Comments: Assumed All Static Data											
N07	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	6.625	STD	0.0000	0.280	N/A
Comments: Assumed All Static Data											
N08	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	14.00	STD	0.0000	0.375	N/A
Comments: Assumed All Static Data											
N09	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	1.50	5	0.0000	0.065	0.046
Comments: Assumed All Static Data											
N10	N/A	Jan 01, 2013	H01	N/A	STD STNLS STL	0.70	3.50	STD	0.0000	0.216	N/A
Comments: Assumed All Static Data											



ACUREN

ULTRASONIC EXAMINATION REPORT

This test is accredited and meet(s) the requirements of ISO/IEC 17025 as verified by the ANSI National Accreditation Board/ANAB. Refer to certificate and scope of accreditation (AT-1815 Neenah).

Acuren Inspection, Inc.

2460 Towerview Drive
Neenah, Wisconsin 54956
Phone: 920.722.3115

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Report Number: NEE546389

Page 1 of 1

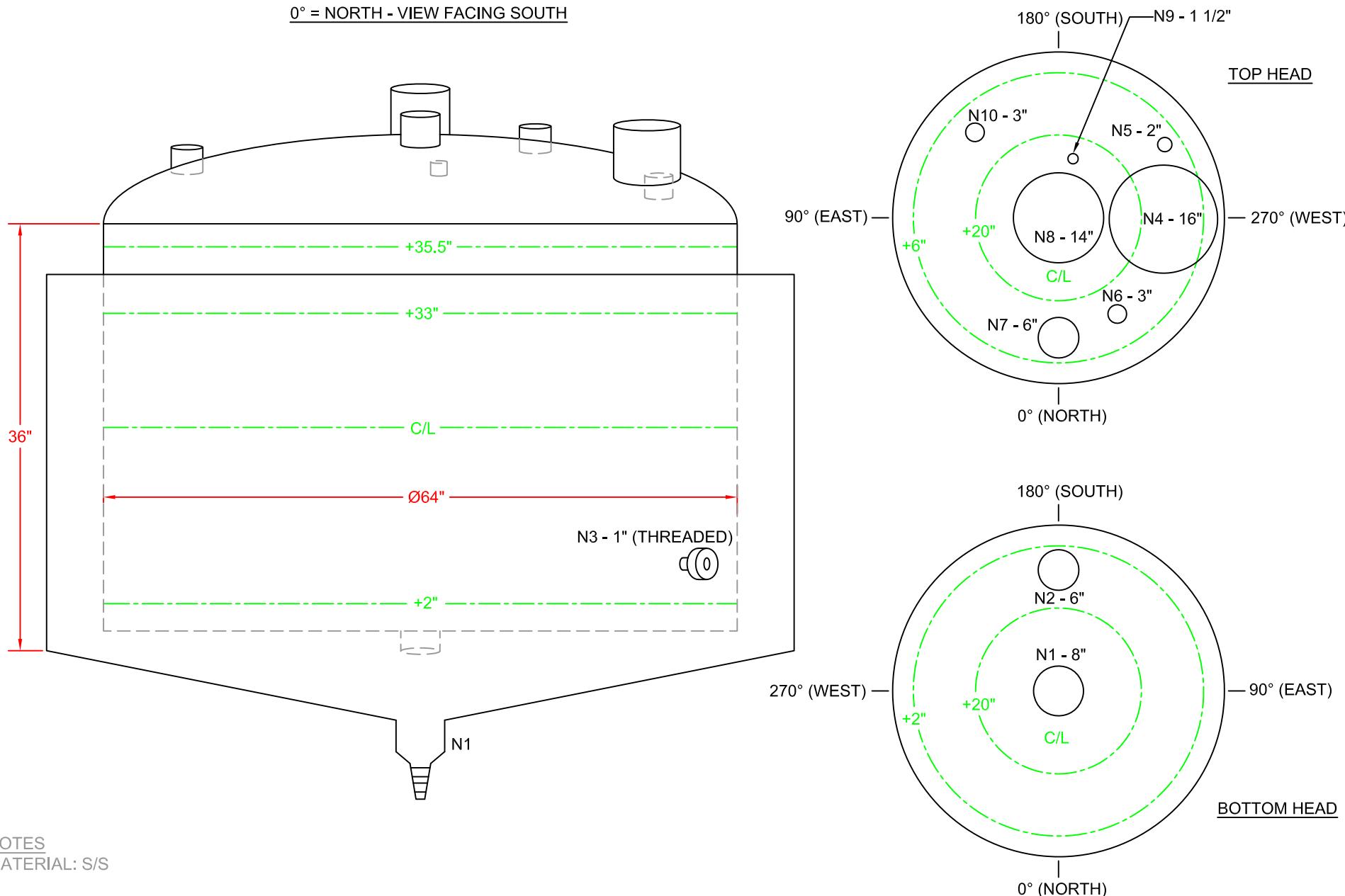
CUSTOMER: Rodelle - ADM Nutrition				ACUREN SERVICE CALL #: 502-J125527		DATE: 03/29/2024		
LOCATION/ADDRESS: 3461 Precision Dr Fort Collins CO USA 80528				CUSTOMER CONTACT: Mady Wanek / Jon Fleming				
PART # / DRAWING #: 0300-TK-09				CUSTOMER PO #: WAN231207		CUSTOMER WO #: N/A		
ITEM DESCRIPTION: LARGE MIX TANK				STAGE OF MANUFACTURE: Final		SURFACE CONDITION: Clean bare metal		
SURFACE PREPARATION: N/A		COMMENT: 2024 Vessel/Equipment Extraction Inspections				PARTS INSPECTED: 1	ACCEPTED: Info	REJECTED: Info
NDE PROCEDURE UT-2A		REV. 10	SPECIFICATION/CODE ASME Sec. V	REV./EDITION 2023	ACCEPTANCE STANDARD API 510 / Customer Information			
MATERIAL: Carbon Steel / Stainless Steel (See Attached Report)			EXAMINATION SURFACE: External	THICKNESS: Varies in.	QUANTITY: 1	ITEM TEMP.: 68 °F	CAL. BLK TEMP.: 68 °F	
TECHNIQUE: <input checked="" type="checkbox"/> Longitudinal <input type="checkbox"/> Other			TYPE OF EXAM: Thickness Survey	COUPLANT TYPE: Sonoglide FE20		BATCH NO.: 18B01K		
INSTRUMENT MANUFACTURER: Olympus		MODEL: 38DL Plus	SERIAL NO.: 151022601	ANNUAL CAL. DUE DATE: 09/25/2024	SEARCH CABLE LENGTH: 4'	SEARCH CABLE TYPE: LEMO		
TRANSDUCER: <input type="checkbox"/> Single <input checked="" type="checkbox"/> Dual		FREQUENCY: 5 MHz	WEDGE ANGLE: N/A	MANUFACTURER: Panametrics D790	SERIAL NO.: 1173307	SIZE: 0.375"	MEASURED ANGLE: 0°	DELAY: N/A
CALIBRATION BLOCK: <input type="checkbox"/> Curved <input checked="" type="checkbox"/> Flat		TYPE: 0.100" - 0.500" Step Wedge	MATERIAL: Carbon Steel / Stainless Steel	MANUFACTURER: Olympus			S/N: 1543-13 / 5365-19	
Items	Quantity	Comments						Accept/Reject
0300-TK-09	1	An ultrasonic thickness examination was performed on all accessible areas on vessel/equipment. See the following API Summary and DMAPS report for actual thickness readings and their locations.						Info. Only

Sensitivity Level: +		62dB	Calibration Time Check: 12:30 PM		Calibration Time Initial: 8:00 AM		Calibration Time Final: 4:30 PM	
<input type="checkbox"/> High Temp	Wire Wheel: N/A	Other: N/A	Customer Contact: Mady Wanek					
Per Diem: N/A	Unit #: N/A	No. on Job: N/A	Travel if Applicable: Hours: N/A Miles Total: N/A	Hours Worked: 7:00 to AM and to 5:00 PM	Total Hours: N/A			

CLIENT REPRESENTATIVE		ACUREN INSPECTOR Cole Anderson	03/29/2024	UT Level II	
Print Name / Signature		Date	Print Name / Signature	Date	Inspection Level

Client acknowledges receipt and custody of the report or other work ("Deliverable"). Client agrees that it is responsible for assuring that acceptance standards, specifications and criteria in the Deliverable and Statement of Work ("SOW") are correct. Client acknowledges that Acuren is providing the Deliverable according to the SOW, and not any other standards.

Client acknowledges that it is responsible for the failure of any items inspected to meet standards, and for remediation. Client has 15 business days following the date Acuren provides the Deliverable to inspect it, identify deficiencies in writing, and provide written rejection, or else the Deliverable will be deemed accepted. The Deliverable and other services provided by Acuren are governed by a Master Services Agreement ("MSA"). If the parties have not entered into an MSA, then the Deliverable and services are governed by the SOW and the "Acuren Standard Service Terms" (www.acuren.com/serviceterms) in effect when the services were ordered.



SERVICE CALL #	502-J125527
DATE OF INSPI.	3/29/2024
TECHNICIAN(S)	K.A. / C.A.



ADM / RODELLE
FORT COLLINS, CO

EQUIPMENT:
LARGE MIX TANK
(0300-TK-09)

DRAWN BY	K.A. / C.A.	CAD BY	J.K
SHEET NO.	1 OF 1	REV.	0
DWG - LARGE MIX TANK (0300-TK-09).DWG			