

INSPECTION REPORT



Pressure Vessel Survey			
Location:	Point Tupper	EM&I J Report No.:	PT-D2105C-090503-DL-R0
Client Name:		Client Ref No.:	PT-11573619-001-D2105C
Client Rep.:		Inspector Name:	Daniel Lewis
WO No.:		Inspection Date:	May 03, 2009
SPO No.:		System:	Butane
Workscope No.:	PT-2008-VESSEL-EXT-04	EM&I J Job No:	EMJ0132.33
Tag No.:	D-2105C	Equipment Description:	Butane Storage Vessel D-2105C
Date of Last Inspection:	NA	Previous Records Seen:	NA
Drawing No.:	LA-B23-F-22-8062-01-Z4, 98-CA-399735-E, 98-CA-399735-4C		

Inspection Summary					
Item	Condition				Comments
External Ladders, Access and Support Structure	Good	Fair	Poor	NA	
1. If applicable, check ladders, stairways, platforms and walkways that are connected to, or bearing on the vessel for signs of corrosion, missing components, or deterioration.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Supports for access way allow a lot of movement. This could possibly be placing stress on the re-enforcement plates
2. If applicable, check vessel supports for signs of deterioration, settlement, deflection, and/or corrosion.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vessel supports are in good condition. Small cracks at the top of the concrete legs
3. If applicable, check coatings for signs of deterioration, rusts spots, cracks, blistering, and/or coating disbondment.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small areas of coating breakdown. The access way appears to be the source of some of the rust staining on the vessel ends
4. a) For horizontally mounted vessels, check for signs of trapped moisture, resulting in corrosion between cradle support and vessel shell.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) For vertically mounted vessels on skirt support or support legs, check for condensation, resulting in corrosion on the bottom cap/ inside skirt support surface or area of attachment of the support legs to the bottom cap.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Check the grounding connection is correctly installed, with cable connections tight and ground wires in good condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Check all bolted connections for any signs of corrosion or mechanical damage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. If applicable, check the vessel sliding foot free to move and hold-down bolts are free.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Vessel External Surfaces	Good	Fair	Poor	NA	
1. Check permanent identifying tags on vessel are legible and present the required information.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The vessel plate is fitted and the details recorded below
2. If applicable, check that all bolts/studs extend fully through their nuts, having a protrusion beyond the nut of not less than one thread; flange bolts have bolt heads all on the side of the joint.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The nozzle attached to the man-way has CAT I studs and nuts
3. If applicable, check bolted connections are in full contact with connected elements and connections for any signs of rust, corrosion or mechanical damage.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. If applicable, check insulation support bands and clips for signs of corrosion or breakage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This vessel is not insulated
5. Check all welded seams and connections for any signs of deterioration, corrosion, cracking, pitting or other sign of failure. Specify.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The vessel weld seams are coated. No deterioration evident
6) If applicable, check insulation type, condition for any insulation damage and ingress of water. Record insulation type.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	This vessel is not insulated
7. Carry out visual inspection of the exterior surface of the vessel, including coatings for any signs of leaks, cracks, deformation, distortion, pitting, corrosion or other forms of deterioration. If so, specify type, location and extent.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	This vessel is coated. The vessel surface appears to be in good

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Inspection Summary					
Item	Condition				Comments
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	condition. Small isolated areas of coating breakdown occurring over the vessel shell
8. If applicable, check weep holes in reinforcement plates are not plugged.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External Piping / Instrument Attachments	Good	Fair	Poor	NA	
1. If applicable, check vessel trim, such as gauges, sight glasses, valves and other appurtenances, show signs of deterioration, or missing components, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The vessel level gauge is Stainless Steel. This is connected to a Carbon Steel flange. The gauges on this vessel are in good condition. There is 5% coating breakdown with surface corrosion occurring on the SDV of this vessel. The trim attached to N4B has 100% coating breakdown and light surface corrosion
2. If applicable, check if the PSV on the vessel is in calibration. Record tag number of PSV and calibration date.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The PSV on this vessel is in good condition. The details of the PSV have been recorded below
3. Inspect fittings, nozzles and other connections, including the surrounding vessel shell / head for any signs of distortion or cracks, wall loss, leakage, deterioration of coatings, etc. Specify extent and location.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The nozzles of this vessel are in good condition. The nozzle flanges of this vessel have coating breakdown. This has been captured in the photos of the nozzles
Vessel Internal Surfaces	Good	Fair	Poor	NA	
1. Check for signs of corrosion, erosion, cracks, blisters, pitting, distortion, or other forms of deterioration on the internal vessel surfaces. If any, specify type, location and extent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Check all welded joints for any signs of deterioration, corrosion, cracking, pitting or other sign of failure. Specify.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Check all man-ways, nozzles and connections for distortion, cracks, corrosion, wall loss and other type of defects or failures. If any defects are noted, specify type, extent and location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. If applicable, compare the results of performed wall thickness survey with previous reports for areas of wall thickness loss. Identify areas on inspection report.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Where applicable, check vessel internal cladding for signs of bulging, buckling, cracks, holes, etc. If any, specify type, location and extent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Where applicable, check the vessel internal coating for signs of deterioration, such as: rust spots, blisters, coating disbandment, etc. If any, specify type, location and extent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. If possible, check gasket seals on all flanges for signs of corrosion and/or mechanical damage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Internal Equipment/Piping /Supports	Good	Fair	Poor	NA	
1. Where applicable, check supports for vessel's internal equipment and components for signs of corrosion, distortion and deterioration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

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Inspection Summary

Item	Condition				Comments
2. If applicable, check vessel's internals for signs of corrosion, distortion and deterioration, missing components etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. If applicable, check if bolted connections are in full contact with connected elements and connections are free from rust or other deleterious material that may prohibit full contact.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings

PSV Tag:

Calibrated By: Land and Sea Instrumentation

Type: JPVM 15A

Serial No.: ZA0172245

Calibration Date: 01-14-09

Capacity: 24890 SCFM

Set Pressure: 1247 KPA

Condition: CAT 2 studs and nuts and 15% coating breakdown with surface corrosion

Vessel ID Plate:

Certified By: Patterson Industries

Serial No.: 98CA9735E

Tag: 2105C

Year of Build: 1998

Code: RT-1

MAWP: 185 & -9 PSIG @ 149 F

MDMT: -6.6 F @ 185 & -9 PSIG

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 1 – North dome end of vessel and vessel access structure. Rust staining is propagating from the reinforcement plates of the supports of the access way



Photo 2 – (M1) 100% coating breakdown with surface corrosion of flange and CAT II studs and nuts



Photo 3 – (N5) 100% coating breakdown with surface corrosion of flange and CAT II studs and nuts. 20% coating breakdown with surface corrosion occurring on nozzle



Photo 4 – (N10) Covered by insulation jacket. Heat trace in place, insulation jacket not removed due to proximity of linear heat trace. No CUI appears to be occurring at nozzle. Studs and nuts CAT II

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 5 – Nozzle attached to M1, studs and nuts CAT I



Photo 6 – Concrete support leg in good condition



Photo 7 – Coating breakdown with surface corrosion occurring at foot of saddle support. This is a general occurrence of all the propane storage vessels



Photo 8 –Area of coating breakdown with surface corrosion on support ring at bottom of vessel

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 9 – Condition of SDV2105, 5% coating breakdown with surface corrosion on valve. 10% coating breakdown with surface corrosion occurring on flange of N2



Photo 10 – (N2) 20% coating breakdown with surface corrosion occurring on flange. Studs and nuts CAT II



Photo 11 – Grounding cable connected and in good condition



Photo 12 – Areas of coating breakdown with surface corrosion on South-West end of vessel. Corrosion appears to be light

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 13 – (N4B) 40% coating breakdown with surface corrosion occurring on flange. Studs and nuts CAT II, 100% coating breakdown with surface corrosion of vessel trim attached



Photo 14 – Thermometer attached to N6. Note: Use of dissimilar metals. Studs and nuts CAT II



Photo 15 – (N4B) 40% coating breakdown with surface corrosion occurring on flange. Studs and nuts CAT II, 100% coating breakdown with surface corrosion of vessel trim attached



Photo 16 – Areas of coating breakdown with surface corrosion on South-East end of vessel. Corrosion appears to be light. Coating breakdown and rust staining propagating from re-enforcement plates of access way supports

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 17 – Coating breakdown and rust staining propagating from re-enforcement plates of access way supports



Photo 18 – Areas of coating breakdown with surface corrosion occurring on East side of vessel



Photo 19 – Areas of coating breakdown with surface corrosion occurring on East side of vessel



Photo 20 – (N3A, N4A, N8) Studs and nuts CAT II, coating breakdown with surface corrosion occurring on trim

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 21 – (N3A) Studs and nuts CAT II, 20% coating breakdown with surface corrosion on flange



Photo 22 – (N8) Studs and nuts CAT II, 30% coating breakdown with surface corrosion on flange



Photo 23 – (N1) Studs and nuts CAT II, 30% coating breakdown with surface corrosion on flange



Photo 24 – (N9) Studs and nuts CAT II, 60% coating breakdown with surface corrosion on flange

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 25 – General view of West side of vessel. Not lack of coating breakdown as opposed to opposite side



Photo 26 – Coating breakdown with surface corrosion occurring on South-West end of vessel. Rust staining also appears to be stemming from light coating breakdown with surface corrosion on access way



Photo 27 – Condition of vessel level gauge as viewed from above. Studs and nuts CAT II. Note: The use of similar metals



Photo 28 – Condition of pipe support for fire water line. This support is in good condition

Detail of Findings

Instructions: With the aid of Drawing(s), Sketch(es) and Photo(s) describe findings



Photo 29 – View of vessel level gauge, in good condition.
Note: The use of dissimilar metals



Photo 30 – Man-way nozzle with CAT I studs and nuts



Photo 31 – PSV2105A

INSPECTION REPORT



List of Attachments

Attachment 1: PT-D2105C-090314-VR-UT (Page 1 to 2)
Attachment 2: PT-D2105C-090523-MR-UT (Page 1 to 5)
Attachment 3: 98-CA-399735E

End of Report

INSPECTION REPORT



Ultrasonic Inspection Survey for Vessel Inspection

Location:	Point Tupper	EM&I J Report No.:	PT-D2105C-090314-VR-UT
Client Name:	Exxon Mobil Sable	Client Ref No.:	PT-11573619-001-D2105C
Client Rep.:	Dale Groves	Inspector Name:	Victor Ritchie
WO No.:	11573619	Inspection Date:	March 14, 2009
SPO No.:	4501869140	Inspection Time:	Various
Workscope No.:	PT-2008-Vessel-EXT-04	System:	Butane
Previous Report No.	NA	EM&I J Job No:	EMJ0132.33
Ref. Drawing No.:	LA-B23-F-22-8062-01-Z4, 98-CA-399735-E, 98-CA-399735-4C		
Technician Certifications:	PCN UT2	Certification Expiry Date:	January 29, 2014
Inspection Code:	NA	Inspection Procedure:	EM&I
Item Inspected:	Storage Tank	Material (Incl. Vol.):	CS
Surface Condition:	As coated	Surface Temp:	Ambient
Instrument	Type: Epoch LTC	Equipment S/N: 090100701	Cal Due Date: January 24, 2010
Instrument Settings	Reference Level: 80fsh	Gain: 50db	Reject Settings: NA
Search Unit Cables	Type:	Length: 5'	Transfer Value:
Calibration Block:	Step wedge 2.5-12.5mm	Calibration Block S/N:	CB2
Simulation Block:	NA	Couplant:	Ultragel
Computerized Program:	NA		
Transducer Mfg:	Type:	Model No.:	Angle:
Panametrics	dual element	D790SM	0

Inspection Summary

Restricted Access?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments:
<p>Comments:</p> <p>UT measurment were taken on side wall using echo technique and readings were recorded. This does not constitute a UT survey. See below for locations and readings. All readings are in millimeters.</p>			

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Inspection Summary

Item Identification	Test Point	Diameter (inches)	Nominal Wall Thickness (mm)	Minimum Wall Thickness (mm)	Average Wall Thickness (mm)
Shell Bottom	TP1	132"	20.6	21.7	N/A
Shell Bottom	TP2	132"	20.6	21.7	N/A
Shell Bottom	TP3	132"	20.6	21.7	N/A
Shell Bottom	TP4	132"	20.6	21.6	N/A
Shell Bottom	TP5	132"	20.6	21.5	N/A
Shell Bottom	TP6	132"	20.6	21.6	N/A
Shell Bottom	TP7	132"	20.6	22.2	N/A
Shell Bottom	TP8	132"	20.6	22.4	N/A
Shell Bottom	TP9	132"	20.6	22.0	N/A
Shell Bottom	TP10	132"	20.6	22.1	N/A
Shell Bottom	TP11	132"	20.6	22.1	N/A
Shell Bottom	TP12	132"	20.6	21.7	N/A
Shell Bottom	TP13	132"	20.6	21.9	N/A
Shell Bottom	TP14	132"	20.6	22.0	N/A
Shell Bottom	TP15	132"	20.6	21.9	N/A
Shell Bottom	TP16	132"	20.6	22.0	N/A
Shell Bottom	TP17	132"	20.6	22.0	N/A
Shell Bottom	TP18	132"	20.6	22.0	N/A
Shell Bottom	TP19	132"	20.6	22.1	N/A
Shell Bottom	TP20	132"	20.6	22.0	N/A
Shell Bottom	TP21	132"	20.6	22.1	N/A
Shell Bottom	TP22	132"	20.6	22.0	N/A
Shell Bottom	TP23	132"	20.6	21.9	N/A
Shell Bottom	TP24	132"	20.6	21.5	N/A
Shell Bottom	TP25	132"	20.6	21.9	N/A
Shell Bottom	TP26	132"	20.6	21.9	N/A
Shell Bottom	TP27	132"	20.6	22.0	N/A
Shell Bottom	TP28	132'	20.6	22.3	N/A
Shell Bottom	TP28	132"	20.6	22.1	N/A
Shell Bottom	TP29	132"	20.6	22.0	N/A
Shell Bottom	TP30	132"	20.6	22.2	N/A
Shell Bottom	TP32	132"	20.6	22.0	N/A
Shell Bottom	TP33	132"	20.6	22.0	N/A
Shell Bottom	TP34	132"	20.6	22.1	N/A
Shell Bottom	TP35	132"	20.6	22.0	N/A
Shell Bottom	TP36	132"	20.6	22.0	N/A

End of Report

INSPECTION REPORT



Ultrasonic Inspection Survey for Vessel Inspection

Location:	Point Tupper	EM&I J Report No.:	PT-D2105C-090523-MR-UT
Client Name:	Exxon Mobil Sable	Client Ref No.:	PT-11573619-001-D2105C
Client Rep.:	Dale Groves	Inspector Name:	Michael Rotondella
WO No.:	11573619	Inspection Date:	May 23, 2009
SPO No.:	4501869140	Inspection Time:	Various
Workscope No.:	PT-2008-VESSEL-EXT-04	System:	Butane
Previous Report No.	NA	EM&I J Job No:	EMJ0132.33
Ref. Drawing No.:	LA-B23-F-22-8062-01-Z4, 98-CA-399735-E, 98-CA-399735-4C		
Technician Certifications:	PCN UT 2	Certification Expiry Date:	October 24, 2010
Inspection Code:	NA	Inspection Procedure:	EM&I
Item Inspected:		Material (Incl. Vol.):	C/S
Surface Condition:	As coated	Surface Temp:	Ambient
Instrument	Type: Epoch LTC	Equipment S/N: 090108403	Cal Due Date: March 11, 2010
Instrument Settings	Reference Level: 80fsh	Gain: 60db	Reject Settings: NA
Search Unit Cables	Type:	Length: 5'	Transfer Value:
Calibration Block:	Step wedge 2.5-12.5mm	Calibration Block S/N:	09-1652
Simulation Block:	NA	Couplant:	Ultragel II
Computerized Program:	NA		
Transducer Mfg:	Type:	Model No.:	Angle:
Panametrics	Dual Element	D790SM	0

Inspection Summary

Restricted Access?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Comments: Rope Access Required
<p>Comments:</p> <p>UT spot readings were taken and the readings were recorded. See below for locations and readings. All readings are in millimeters.</p> <p>Readings on North head were taken facing South and readings on South head were taken facing North.</p>			

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Inspection Summary

Item Identification	Test Point	Diameter (inches)	Nominal Wall Thickness (mm)	Minimum Wall Thickness (mm)	Average Wall Thickness (mm)
D2105C Bottom Shell	Plate 1	132"	20.6	21.00	N/A
D2105C Bottom Shell	Plate 2	132"	20.6	20.80	N/A
D2105C Bottom Shell	Plate 3	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 4	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 5	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 6	132"	20.6	21.00	N/A
D2105C Bottom Shell	Plate 7	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 8	132"	20.6	20.70	N/A
D2105C Bottom Shell	Plate 9	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 10	132"	20.6	20.80	N/A
D2105C Bottom Shell	Plate 11	132"	20.6	20.60	N/A
D2105C Bottom Shell	Plate 12	132"	20.6	20.80	N/A
D2105C Top Shell	Plate 1	132"	20.6	20.80	N/A
D2105C Top Shell	Plate 2	132"	20.6	20.50	N/A
D2105C Top Shell	Plate 3	132"	20.6	20.40	N/A
D2105C Top Shell	Plate 4	132"	20.6	20.50	N/A
D2105C Top Shell	Plate 5	132"	20.6	20.40	N/A
D2105C Top Shell	Plate 6	132"	20.6	20.60	N/A
D2105C Top Shell	Plate 7	132"	20.6	20.70	N/A
D2105C Top Shell	Plate 8	132"	20.6	20.60	N/A
D2105C Top Shell	Plate 9	132"	20.6	20.50	N/A
D2105C Top Shell	Plate 10	132"	20.6	20.50	N/A
D2105C Top Shell	Plate 11	132"	20.6	20.60	N/A
D2105C Top Shell	Plate 12	132"	20.6	20.90	N/A
D2105C North Head	12 o'clock	132"	19.8	21.80	N/A
D2105C North Head	3 o'clock	132"	19.8	21.30	N/A
D2105C North Head	6 o'clock	132"	19.8	21.60	N/A
D2105C North Head	9 o'clock	132"	19.8	21.40	N/A
D2105C North Head	Centre	132"	19.8	21.60	N/A
D2105C South Head	12 o'clock	132"	19.8	22.00	N/A
D2105C South Head	3 o'clock	132"	19.8	21.60	N/A
D2105C South Head	6 o'clock	132"	19.8	21.80	N/A
D2105C South Head	9 o'clock	132"	19.8	21.50	N/A
D2105C South Head	Centre	132"	19.8	22.00	N/A

INSPECTION REPORT



Inspection Summary

Item Identification	Test Point	Diameter (inches)	Nominal Wall Thickness (mm)	Minimum Wall Thickness (mm)	Average Wall Thickness (mm)
D2105C East Shell Reading	Plate 1	132"	20.6	20.60	N/A
D2105C East Shell Reading	Plate 2	132"	20.6	20.80	N/A
D2105C East Shell Reading	Plate 3	132"	20.6	20.50	N/A
D2105C East Shell Reading	Plate 4	132"	20.6	20.50	N/A
D2105C East Shell Reading	Plate 5	132"	20.6	20.60	N/A
D2105C East Shell Reading	Plate 6	132"	20.6	20.80	N/A
D2105C East Shell Reading	Plate 7	132"	20.6	20.60	N/A
D2105C East Shell Reading	Plate 8	132"	20.6	20.70	N/A
D2105C East Shell Reading	Plate 9	132"	20.6	20.40	N/A
D2105C East Shell Reading	Plate 10	132"	20.6	20.40	N/A
D2105C East Shell Reading	Plate 11	132"	20.6	20.40	N/A
D2105C East Shell Reading	Plate 12	132"	20.6	20.90	N/A
D2105C West Shell Reading	Plate 1	132"	20.6	20.70	N/A
D2105C West Shell Reading	Plate 2	132"	20.6	20.70	N/A
D2105C West Shell Reading	Plate 3	132"	20.6	20.60	N/A
D2105C West Shell Reading	Plate 4	132"	20.6	20.40	N/A
D2105C West Shell Reading	Plate 5	132"	20.6	20.60	N/A
D2105C West Shell Reading	Plate 6	132"	20.6	20.90	N/A
D2105C West Shell Reading	Plate 7	132"	20.6	20.70	N/A
D2105C West Shell Reading	Plate 8	132"	20.6	20.70	N/A
D2105C West Shell Reading	Plate 9	132"	20.6	20.60	N/A
D2105C West Shell Reading	Plate 10	132"	20.6	20.60	N/A
D2105C West Shell Reading	Plate 11	132"	20.6	20.50	N/A
D2105C West Shell Reading	Plate 12	132"	20.6	20.90	N/A
D2105B N1	N	4"	33.15	32.10	N/A
D2105B N1	E	4"	33.15	32.20	N/A
D2105B N1	S	4"	33.15	32.20	N/A
D2105B N1	W	4'	33.15	32.10	N/A
D2105B N2	N	8"	22.22	24.00	N/A
D2105B N2	E	8"	22.22	23.90	N/A
D2105B N2	S	8"	22.22	24.00	N/A
D2105B N2	W	8"	22.22	24.00	N/A
D2105A N3A	N	3"	31.43	32.00	N/A
D2105B N3A	E	3"	31.43	32.20	N/A
D2105B N3A	S	3"	31.43	32.20	N/A
D2105B N3A	W	3"	31.43	32.10	N/A

INSPECTION REPORT

Inspection Summary

Item Identification	Test Point	Diameter (inches)	Nominal Wall Thickness (mm)	Minimum Wall Thickness (mm)	Average Wall Thickness (mm)
D2105B N3B	N	3"	31.43	31.80	N/A
D2105B N3B	E	3"	31.43	31.90	N/A
D2105B N3B	S	3"	31.43	32.00	N/A
D2105B N3B	W	3"	31.43	31.90	N/A
D2105B N4A	N	2"	16.67	17.40	N/A
D2105B N4A	E	2"	16.67	17.40	N/A
D2105B N4A	S	2"	16.67	17.40	N/A
D2105B N4A	W	2"	16.67	17.40	N/A
D2105B N4B	N	2"	16.67	17.30	N/A
D2105B N4B	E	2"	16.67	17.30	N/A
D2105B N4B	S	2"	16.67	17.40	N/A
D2105B N4B	W	2"	16.67	17.30	N/A
D2105B N5	N	3"	31.43	31.90	N/A
D2105B N5	E	3"	31.43	31.90	N/A
D2105B N5	S	3"	31.43	32.00	N/A
D2105B N5	W	3"	31.43	31.90	N/A
D2105B N6	N	2"	25.40	24.80	N/A
D2105B N6	E	2"	25.40	24.90	N/A
D2105B N6	S	2"	25.40	24.90	N/A
D2105B N6	W	2"	25.40	24.90	N/A
D2105B N7	N	4"	33.15	32.90	N/A
D2105B N7	E	4"	33.15	33.00	N/A
D2105B N7	S	4"	33.15	33.10	N/A
D2105B N7	W	4"	33.15	33.90	N/A
D2105C N8	N	6"	31.61	32.00	N/A
D2105C N8	E	6"	31.61	31.90	N/A
D2105C N8	S	6"	31.61	31.90	N/A
D2105C N8	W	6"	31.61	32.00	N/A
D2105C N9	N	2"	16.67	17.40	N/A
D2105C N9	E	2"	16.67	17.40	N/A
D2105C N9	S	2"	16.67	17.30	N/A
D2105C N9	W	2"	16.67	17.40	N/A
D2105C N10	N	3"	31.43	32.00	N/A
D2105C N10	E	3"	31.43	32.00	N/A
D2105C N10	S	3"	31.43	31.90	N/A
D2105C N10	W	3"	31.43	32.00	N/A

INSPECTION REPORT



Inspection Summary

Item Identification	Test Point	Diameter (inches)	Nominal Wall Thickness (mm)	Minimum Wall Thickness (mm)	Average Wall Thickness (mm)
D2105C M	N	24"	127.00	128.00	N/A
D2105C M	E	24"	127.00	127.00	N/A
D2105C M	S	24"	127.00	127.00	N/A
D2105C M	W	24"	127.00	128.00	N/A

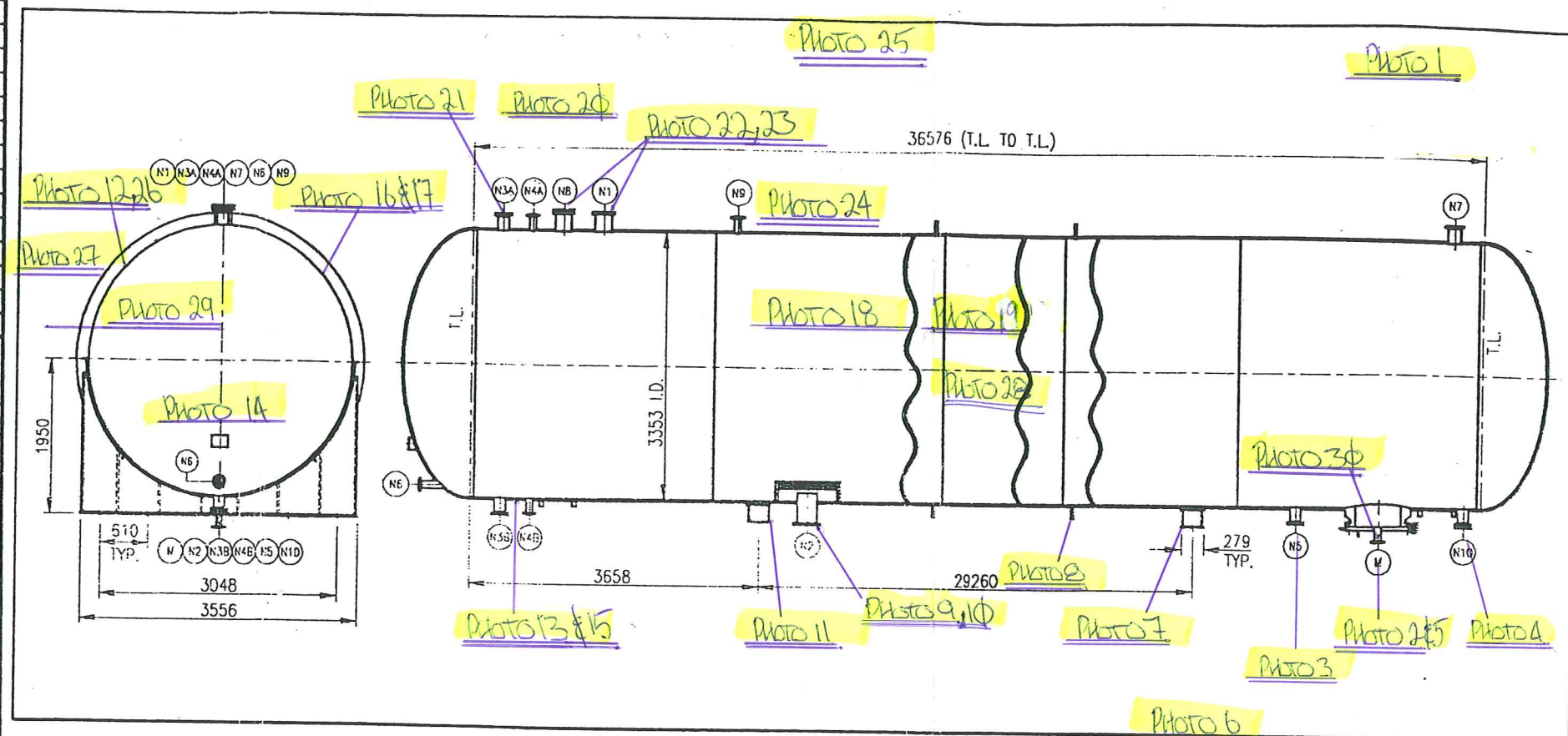
End of Report

ACCESSORIES AND ATTACHMENTS	STD DWG	TYPE	REQD		FURN. BY		INSTL BY	
			Yes	No	FAB		FAB	
○ SUPPORT	CLIENT	SADD.	YES		YES		YES	
○ VORTEX BREAKER	CLIENT		YES		YES		YES	
○ MANWAY (DAVIT) CW COVER, BOLTS, GSKTS	FAB.							
○ LADDER CLIPS	CLIENT		YES		YES		YES	
○ PLATFORM CLIPS	CLIENT							
○ PIPE SUPPORTS	REQD	CLIENT	YES		YES		YES	
○ PIPE GUIDES	REQD	CLIENT	YES		YES		YES	
○ INLET IMPINGEMENT PLATE	FAB		YES		YES		YES	

NOTES

- SADDLE ANCHOR BOLT SIZE: M212 (VENDOR TO CONFIRM)
BOLT HOLES AT FIXED END: 44.5 mm
BOLT HOLES AT EXPANSION END: 44.5 mm x 76.2 mm LONG

- BLIND C/W 2"-300# LWNF



										MATERIALS				DESIGN DATA			
										SHELL SA-516-70(N)		HEADS SA-516-70(N)		PRESSURE DESIGN		OPERATING	
										TYPE: 2:1 SEMIELLPT.				INTERNAL 1275 kPa(ga) @ 65 °C		381 kPa(ga) 42 °C	
										CLAD OR LINING				EXTERNAL 62 kPa(ga) @ 65 °C		- kPa(ga) @ - °C	
										SUPPORTS SA-516-70		SADDLE: SA-516-70(N)		WIND: SPEC. XA-A00-Z-15-0004		SEISMIC: SPEC. XA-A00-Z-15-0004	
										NOZZLES		FLANGE: SA-105(N)		MIN. DESIGN METAL TEMP. -27 °C		@ kPa(ga)	
										MANHOLES/ HANDHOLES		FORGINGS: SA-105(N) & SA350-LF2		LIQ. SPECIFIC GRAVITY 0.488-0.868		SERVICE: SWEET	
										COVER: SA-105(N)		NECK: SA-106B		MAWP (INT) AT DESIGN TEMP. & CORR 1275 kPa(ga) LIMITED BY HEADS		MAWP (EXT) AT DESIGN TEMP. & CORR 84 kPa(ga) LIMITED BY SHELL	
										GASKETS 316 S/S SPIRAL WOUND - FLEXITALIC		NECK: SA-106B		MAP (NEW & COLD) 1392 kPa(ga) LIMITED BY HEADS			
										BOLTING PRESS: SA-193 B7 TEF. CTD				HYDROSTATIC TEST 1913 kPa(ga)			
										NUTS PRESS: SA-194 2H TEF. CTD				CORROSION ALLOWANCE SHELL & HEADS 1.6 mm		NOZZLES 1.6 mm	
										INTERVALS PIPE: PLATE:		CORROSION ALLOWANCE FIXED INTERNALS 3.2 mm		REMOV INTERNALS 1.6 mm			
										STRUCT: BOLTING TYPE 316 S/S		RADIOGRAPHY 100%		NDE PER CODE			
										PLATE: STRUCT:		JOINT EFFICIENCY PER CODE					
										TRAYS		POST WELD HEAT TREATMENT N.A.					
										SUPPORT RINGS		IMPACT TEST: N.A.		PRODUCTION TEST PLATE: N.A.			
										REINFORC. PADS SA-516-70(N)		STIFF. RINGS: SA-516-70N		CODE: ASME SECT. VIII, DIV. 1		STAMPED: Yes	
														INSPECTION BY TSSA, ONTARIO		CRN: REQUIRED YES	
														PAINTING SPEC. XA-A00-Y-15-0005		SURF. PREP. SPEC. XA-A00-Y-15-0005	
														INSULATION NONE			