

API 653 INSPECTION REPORT BUILDER

Professional Atmospheric Storage Tank Inspection System

PROJECT OVERVIEW

Report Number:	Daybrooke 25-1
Tank ID:	1
Inspector:	Jerry Hartfield
Inspection Date:	45872

COMPLETION STATUS

Base Data Complete	<input type="radio"/> Pending
Shell Calc Complete	<input type="radio"/> Pending
Settlement Complete	<input type="radio"/> Pending
CML Data Complete	<input checked="" type="radio"/> Complete

NAVIGATION MENU

Base Data - Tank & Inspector Information
Shell Calc - Thickness Calculations
Component CML - Corrosion Monitoring
Settlement - Survey Analysis
Charts - Visual Analysis
Report - Final Printable Report

CRITICAL ALERTS

Shell Thickness Issues:	0
Settlement Limit Exceeded:	NO
CML Locations < 5 Years:	0

BASE REPORT DATA

Enter basic tank and inspection information

REPORT INFORMATION

Report No. *		Required field
Tank/Equipment ID *		Required field
Inspection Date	8/3/2025	Format: MM/DD/YYYY

TANK SPECIFICATIONS

Nominal Diameter (ft)	50	Enter in feet
Shell Height (ft)	32	Enter in feet
Design Pressure (psig)	0	Enter in psig
Original Plate Thickness (in)	0.25	Enter in inches

MATERIAL & SERVICE INFORMATION

Plate Spec (Course 1)	A516 Grade 70	26700
Service Type	Crude Oil	0.85
Age/Previous Inspection (years)		Years since last inspection

INSPECTOR INFORMATION

Inspector	John Smith, API 653	API 653 #12345
Inspector of Record		Name for report signature
Certification Number		API 653 certification #

SHELL CALCULATIONS (API 653)		
Thickness requirements and remaining life calculations		

CALCULATION PARAMETERS

Fill Height (ft)		Maximum liquid level
Specific Gravity	1.0	Product specific gravity
Joint Efficiency	0.85	From radiography type

COURSE DATA & CALCULATIONS

Course	Height(ft)	Material	Stress(psi)	t Original(in)	t Actual(in)	Required(in)	t Min(in)	CR(mpy)	Remaining Life (y)	Status
1	32	A36	26700	0.25	0.241	-0.183	0.100			
2		A36	26700							
3		A36	26700							
4		A36	26700							
5		A36	26700							
6		A36	26700							
7		A36	26700							

CALCULATION SUMMARY

Minimum Remaining L	0.000	years
Maximum Corrosion R	0.000	mpy
Critical Courses:	0.000	courses

SETTLEMENT SURVEY ANALYSIS

Tank foundation settlement monitoring and analysis

SURVEY PARAMETERS

Current Survey Date	
Previous Survey Date	
Time Between Surveys (years)	0.000
Reference Datum	Mean Sea Level (MSL)

ELEVATION MEASUREMENT POINTS

Position (°)	Previous Elev. (ft)	Current Elev. (ft)	Settlement (in)	Rate (in/yr)	Status
0					
45					
90					
135					
180					
225					
270					
315					

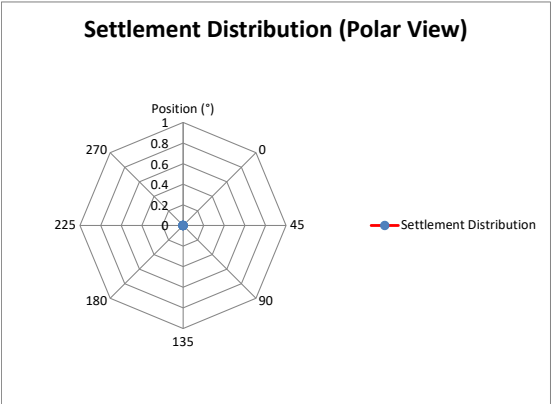
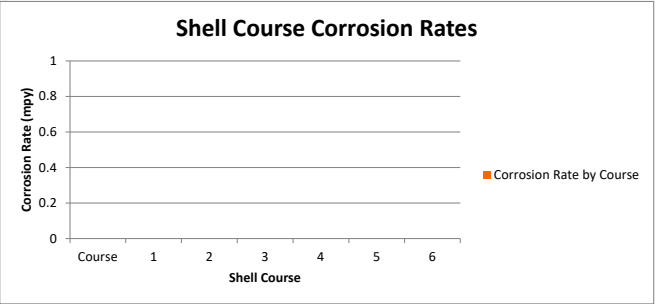
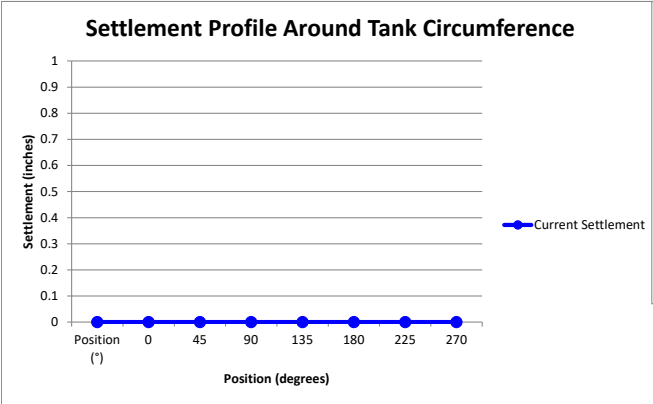
SETTLEMENT ANALYSIS RESULTS

Maximum Settlement:	0.000	inches
Minimum Settlement:	0.000	inches
Average Settlement:		inches
Differential Settlement:	0.000	inches
Tilt Percentage:	0.000	%
Planar Tilt Angle:	0.000	degrees
Out-of-Plane Settlement:		inches

API 653 COMPLIANCE CHECK

Tilt Limit (1%):	PASS	API 653 Section 6.3.2
Settlement Rate Concern:	0.000	locations

SETTLEMENT ANALYSIS CHARTS



COMPONENT CORROSION MONITORING LOCATIONS	
Thickness measurement tracking and remaining life analysis	

COMPONENT CORROSION MONITORING LOCATIONS	
Thickness measurement tracking and remaining life analysis	

QUICK ADD CML	
Component:	Shell Course 1
Location:	
Auto CML ID:	

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Location:	
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QUICK ADD CML	
Component:	Shell Course 1
Location:	
Auto CML ID:	

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SUMMARY STATISTICS		
Total CML Location	1.000	
Critical Locations:	0.000	
Warning Locations:	0.000	
Average Corrosion	#DIV/0!	mpy
Minimum Remaining	0.000	years

SUMMARY STATISTICS		
Total CML Location	1.000	
Critical Locations:	0.000	
Warning Locations:	0.000	
Average Corrosion	#DIV/0!	mpy
Minimum Remaining	0.000	years

API 653 ATMOSPHERIC STORAGE TANKINSPECTION REPORT

EXECUTIVE SUMMARY	
Report Number:	0.000
Tank Identification:	0.000
Inspection Date:	45872.000
Inspector:	John Smith, API 653

TANK SPECIFICATIONS	
Nominal Diameter:	50 ft
Shell Height:	32 ft
Design Pressure:	0 psig
Service:	Crude Oil
Age:	years

SHELL CALCULATIONS SUMMARY

Course	t Required (in)	t Actual (in)	t Min (in)	CR (mpy)	Rem. Life (yrs)	Status
1.000	t Required(in)	t Actual(in)	t Min(in)	CR(mpy)	mainingLife (yrs)	Status
2.000	-0.183	0.241	0.100			
3.000		0.000				
4.000		0.000				
5.000		0.000				
6.000		0.000				
7.000		0.000				

SETTLEMENT ANALYSIS SUMMARY	
Maximum Settlement:	0.000
Differential Settlement:	0.000
Tilt Percentage:	0.000
API 653 Compliance:	PASS

CORROSION MONITORING SUMMARY	
Total CML Locations:	1.000
Critical Locations:	0.000
Minimum Remaining Life:	0 years

RECOMMENDATIONS
• Continue monitoring critical thickness locations
• Schedule next inspection based on remaining life calculations
• Address any settlement concerns identified
• Maintain corrosion protection systems

INSPECTOR CERTIFICATION
This inspection was performed in accordance with API 653
standards and applicable codes and regulations.

Inspector:	0.000
Certification:	0.000
Date:	45891.000

MATERIALS DATABASE

Material	Allowable Stress (psi)	Grade	Temp Rating (°F)	Notes	Joint Type	Efficiency	API 653 Ref
A516 Grade 70	26700	Grade 70	800	Most common tank	Fully Radiographed	1.00	Table 4.2
A36	26700	Standard	650	General structural	Spot Radiographed	0.85	Table 4.2
A572 Grade 50	30000	Grade 50	700	High strength steel	No Radiography	0.70	Table 4.2
A283 Grade C	20000	Grade C	600	Low carbon steel	Pressure vessel quality		
A537 Class 1	32500	Class 1	750	Pressure vessel quality			
A285 Grade C	20000	Grade C	650	Older tank material			
A516 Grade 60	24000	Grade 60	750	Lower grade A516			

JOINT EFFICIENCY

SERVICES DATABASE

Service Type	Specific Gravity	Corrosivity	Temp Range (°F)
Crude Oil	0.85	Low	32-200
Gasoline	0.72	Medium	32-100
Diesel	0.85	Low	32-150
Water	1.00	High	32-212
Jet Fuel	0.80	Low	32-120
Heating Oil	0.89	Low	32-180

INSPECTORS DATABASE

Inspector Name	Certification	Expiration	Specialties
John Smith, API 653	API 653 #12345	12/31/2025	AST, Repairs
Sarah Johnson, API 653	API 653 #23456	06/30/2026	AST, FRP
Mike Wilson, API 653	API 653 #34567	03/15/2025	AST, Welding
Lisa Brown, API 653	API 653 #45678	09/30/2026	AST, Coatings
Chris Welch			