5/1/14

Tank Car Damage Assessment

Car Initials & Number: CBTX 742045

Material:

Tank Car Characteristics / Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111S 100W1 | Tank Test pressure: | Tank Capacity: 31800

Build Date: 09-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: ☐ Y ☒ N | Thermal Protection: ☐ J Jacketed ☐ T Sprayed-on | Insulated: ☐ Y ☒ N

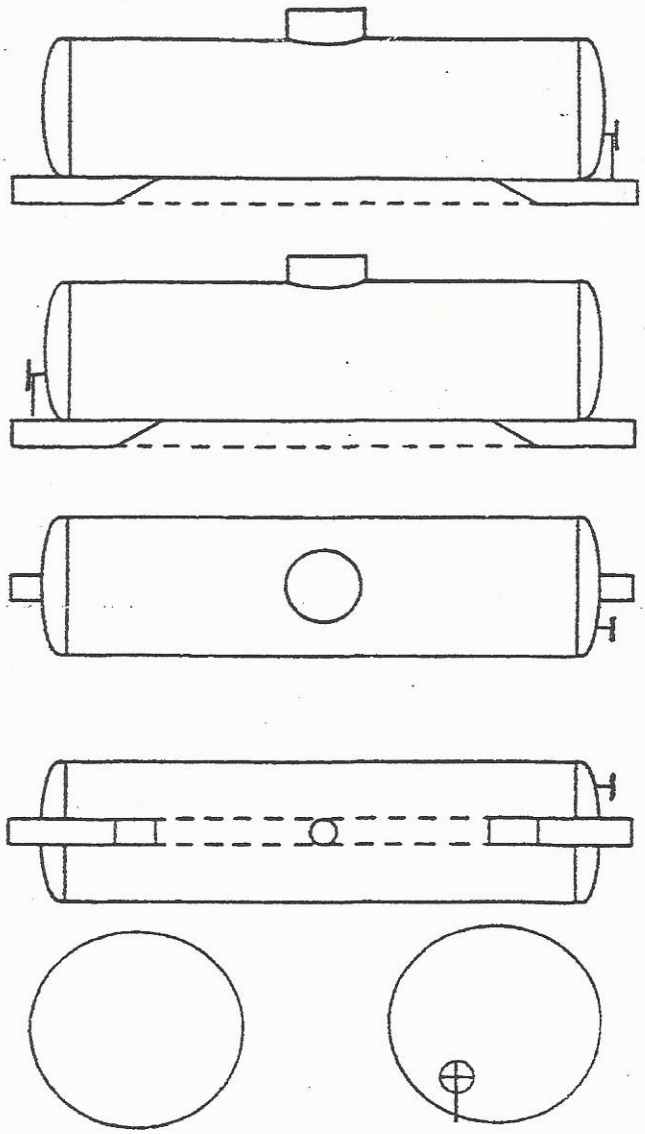
Construction Material: Type/Grade _____ Thickness _____ | Stress: ☐ T ☐ M ☐ C ☐ O ☐ N

Fittings Damage

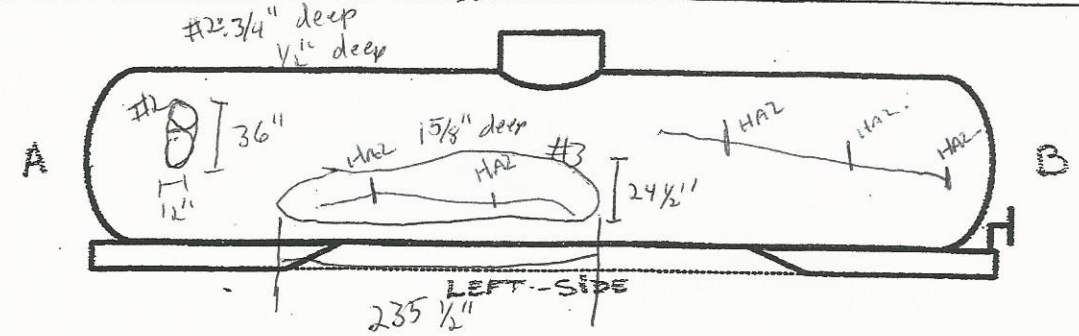
Type fitting	Damaged?	Description Damage/Leak
☐ Liquid Valve	☐ Y ☒ N ☐ Leaking	3"
☐ Vapor/ Air Valve	☐ Y ☒ N ☐ Leaking	2"
☒ Bottom Outlet Type: _____	☐ Y ☒ N ☐ Leaking	INTACT
☐ Pressure Relief Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Vacuum Relief Valve	☐ Y ☐ N ☐ Leaking	
☐ Gauging Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Manway Cover Plate	☐ Y ☒ N ☐ Leaking	
☐ Fill Hole	☐ Y ☒ N ☐ Leaking	
☐ Sample Line	☐ Y ☐ N ☐ Leaking	
☐ Thermo-meter Well	☐ Y ☐ N ☐ Leaking	
☐ Washout	☐ Y ☐ N ☐ Leaking	
☐ Sump	☐ Y ☐ N ☐ Leaking	
☐ Other Type: _____	☐ Y ☐ N ☐ Leaking	

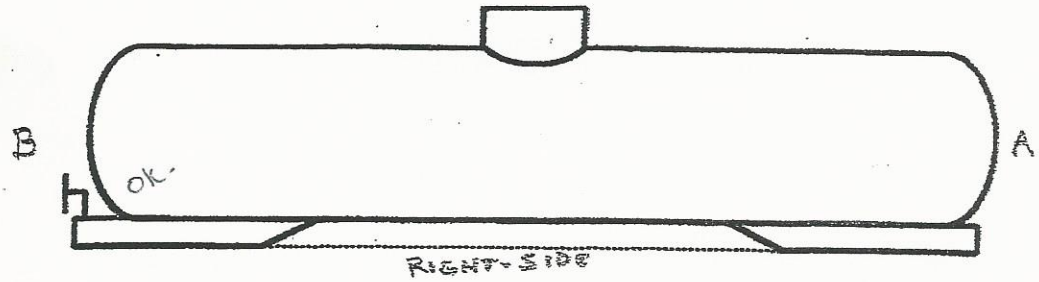
Jacket, Tank and Head Damage

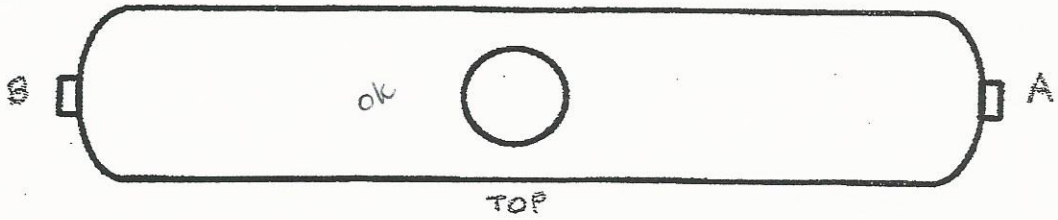
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

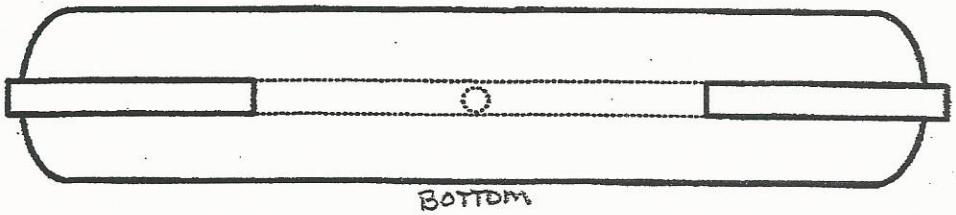


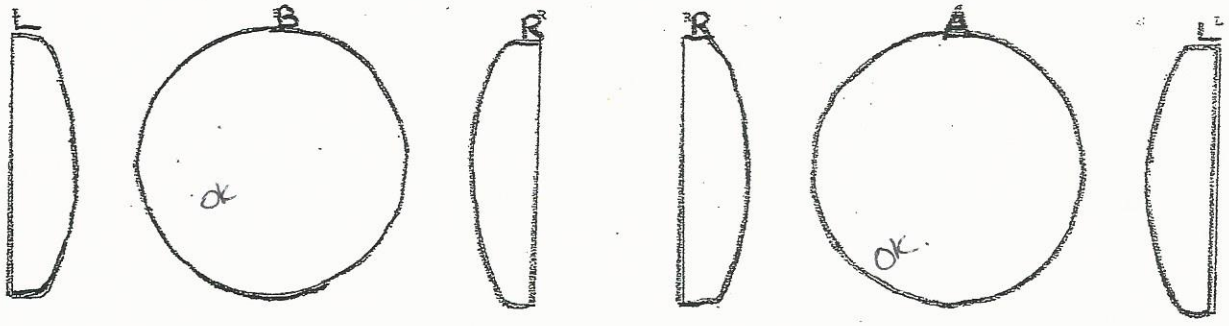
0934
71.5 · F
2 PSI


#2 3/4" deep
1/2" deep
#2
36"
12"
A
B
HAZ
15/8" deep
#3
HAZ
HAZ
HAZ
HAZ
24 1/2"
LEFT-SIDE
235 1/2"


B
A
OK.
RIGHT-SIDE


B
A
OK
TOP


BOTTOM


L
B
R
R
A
L
OK
OK.

CBTX 742045

5/1/14

Tank Car Damage Assessment

Car Initials & Number: CTCX 735779

Material:

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111100W1 | Tank Test pressure: | Tank Capacity: 30100

Build Date: 02-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

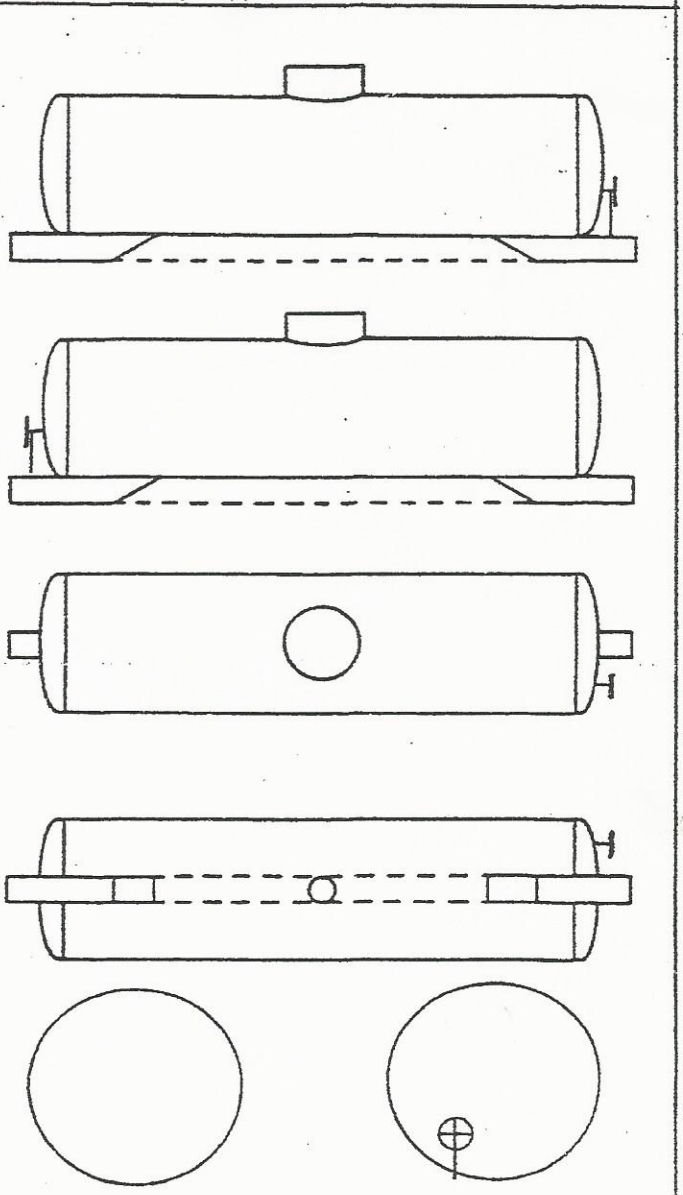
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☐ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☑ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	SHEARED
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

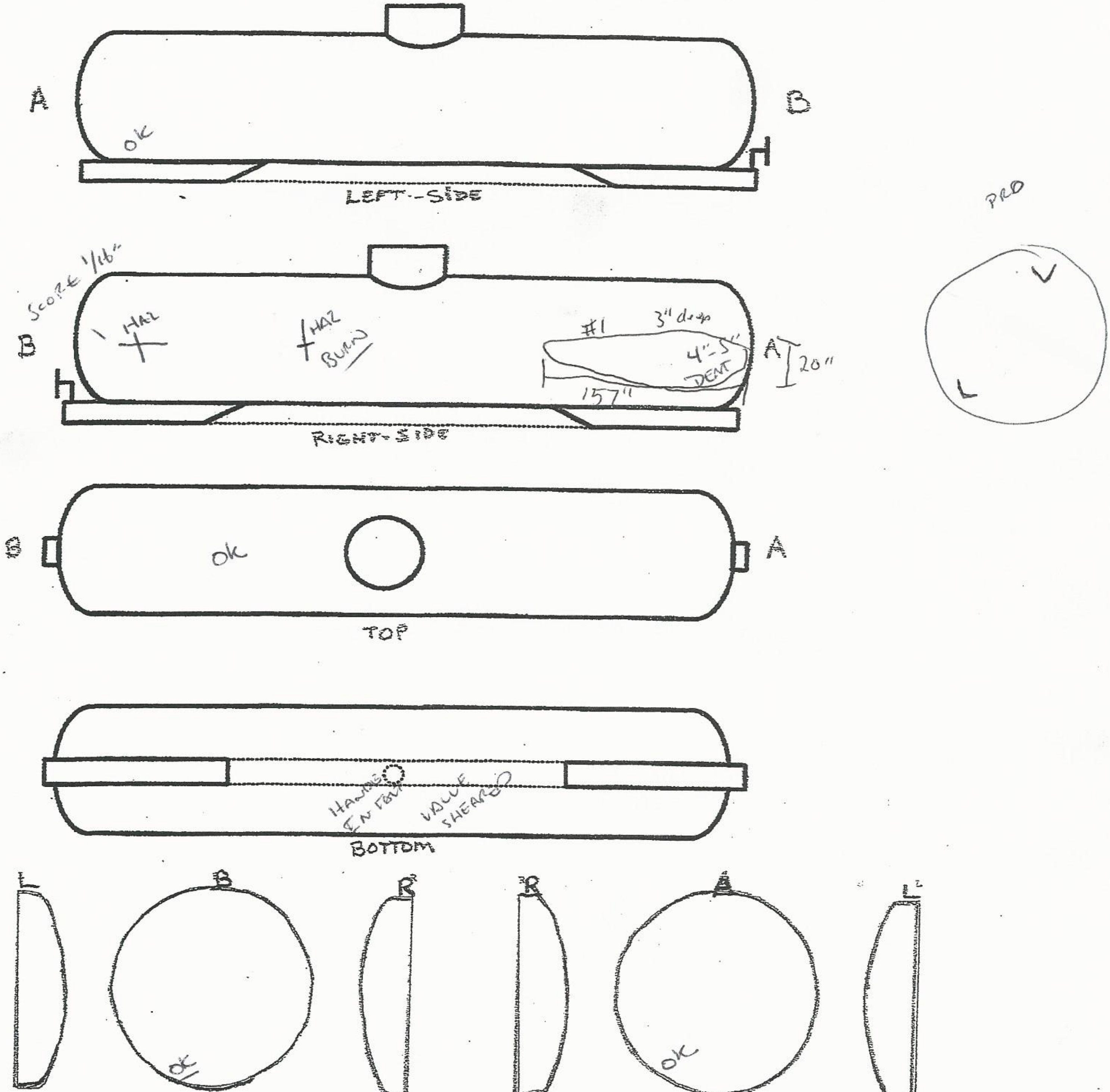
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).



0953
79.3°F
4 PSI

33714



CTCX 735779

5/1/14

Tank Car Damage Assessment

Car Initials & Number: CTCX 743047

Tank Car Characteristics/Features

Material:

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other ________

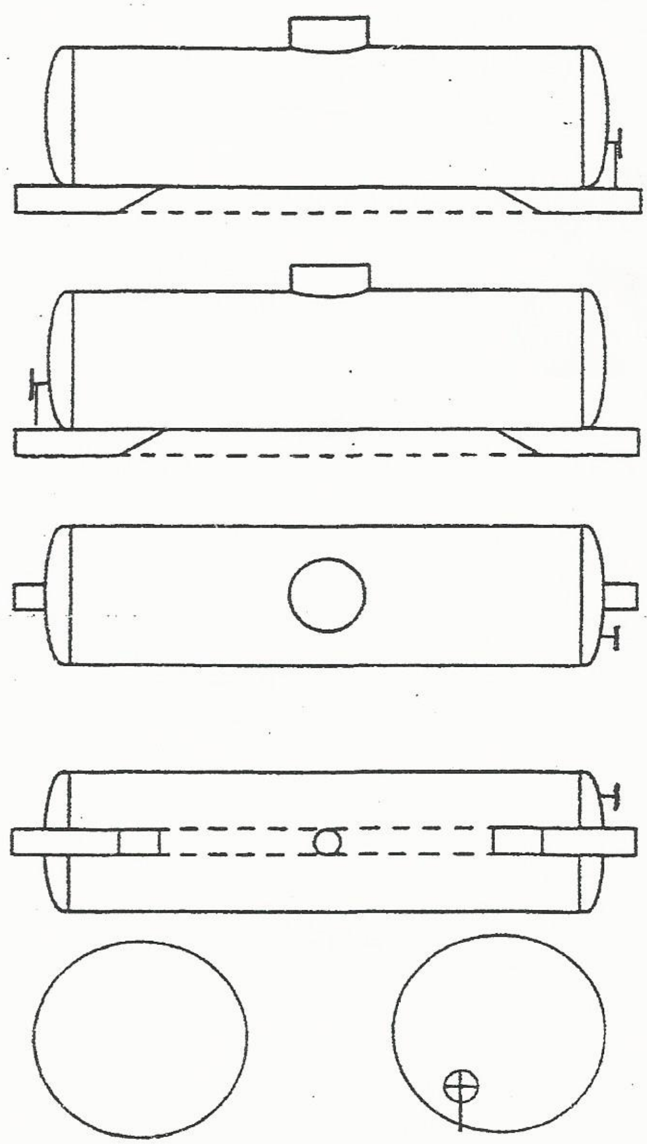
Specification N°: DOT 111S100W1	**Tank Test pressure:**	**Tank Capacity:** 31790
Build Date: 05-2012	**Underframe:** ☐ Continuous ☒ Stub Sill	
Jacketed: [Y] [N]	**Thermal Protection:** [J] Jacketed [T] Sprayed-on	**Insulated:** [Y] [N]
Construction Material: *Type/Grade* ________ *Thickness* ________		**Stress:** [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] ☒[N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] ☒[N] ☐ Leaking	2"
☒ Bottom Outlet Type: ____	[Y] ☒[N] ☐ Leaking	IN TACT
☒ Pressure Relief Device Type: ____	[Y] ☒[N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: ____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: ____	[Y] [N] ☐ Leaking	

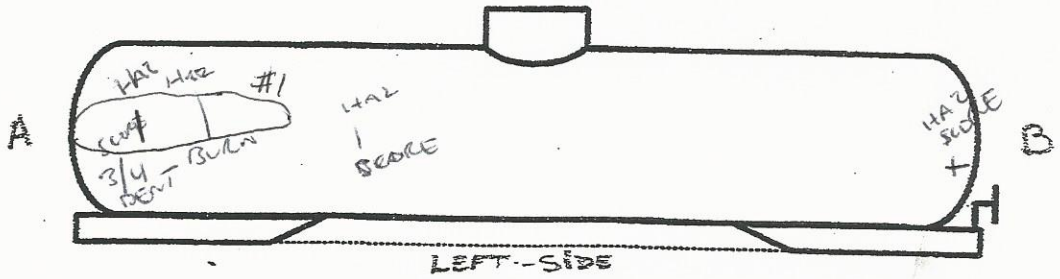
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

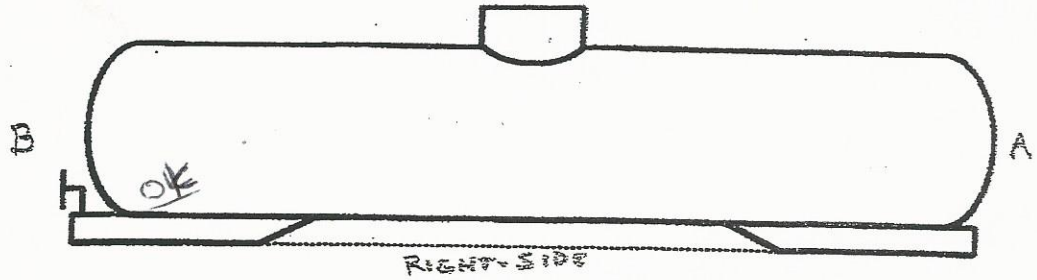


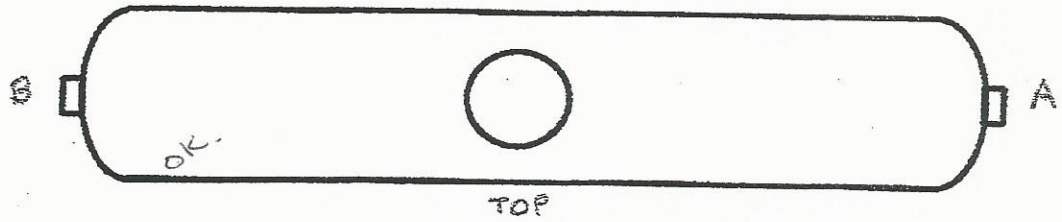
1005 HRS.
4PSI
79.3° F

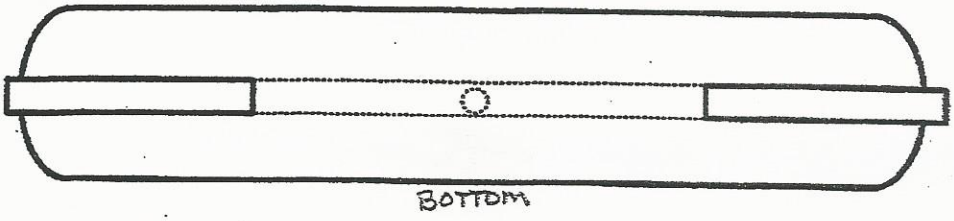
33714

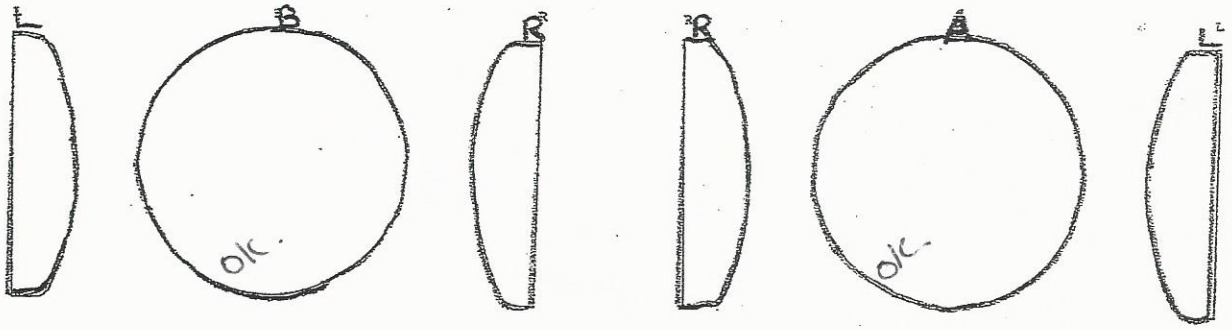


#1: 3/8" deep
9 3/4" wide
45" long









CTCX 743047

5/1/14

Tank Car Damage Assessment

Car Initials & Number CTCX 735774

Material

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111A100W1 | Tank Test pressure: | Tank Capacity: 30090

Build Date: 02-2012. | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

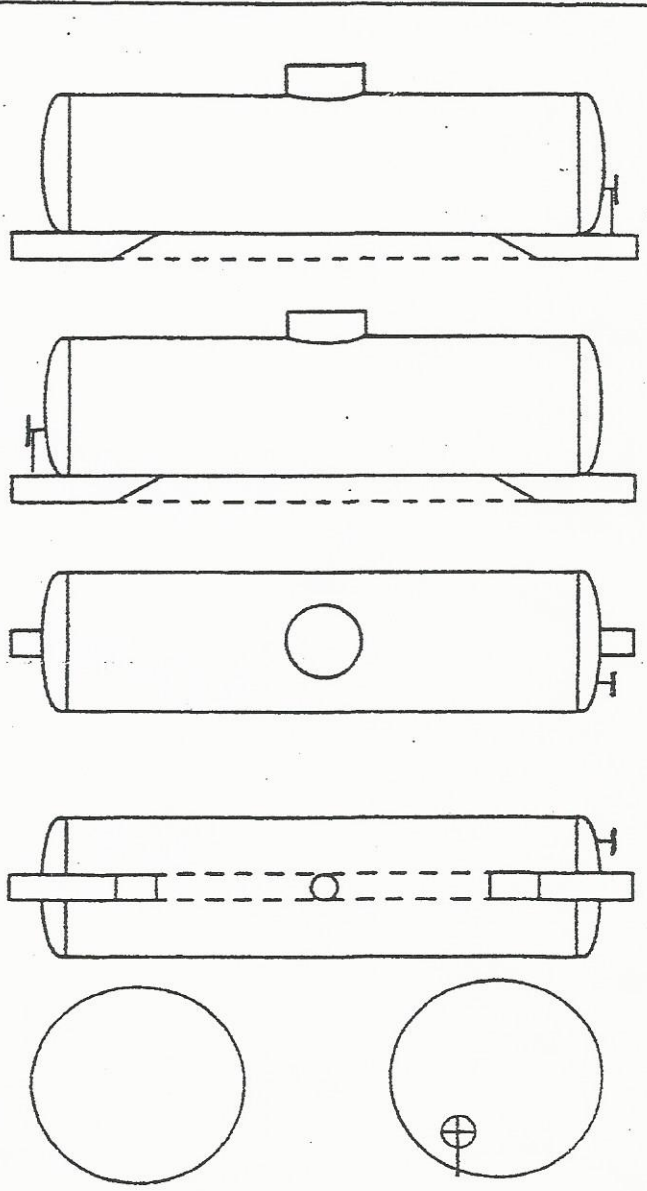
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☐ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	TORN OFF
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

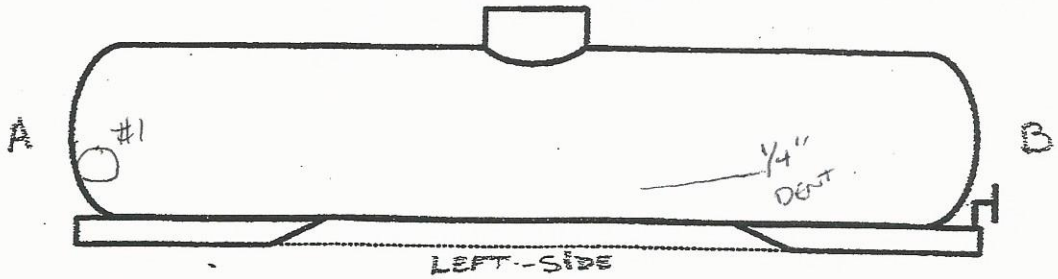
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

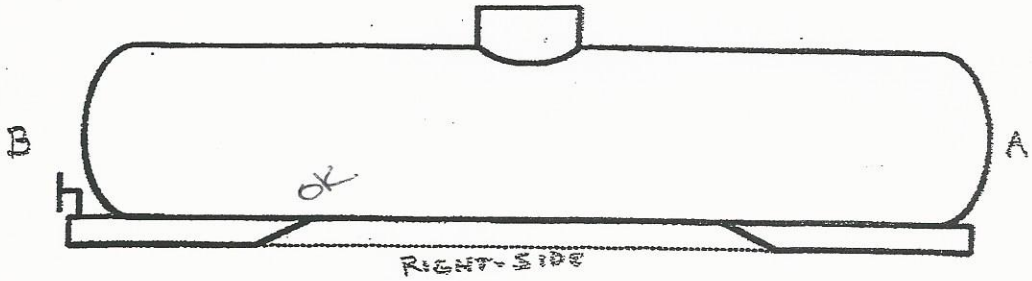


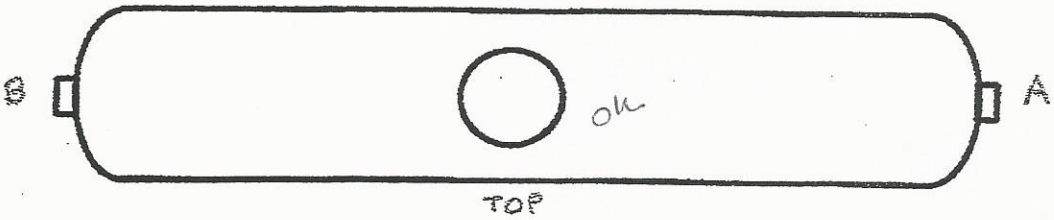
1023 HRS.
6 PSI
79.1°F

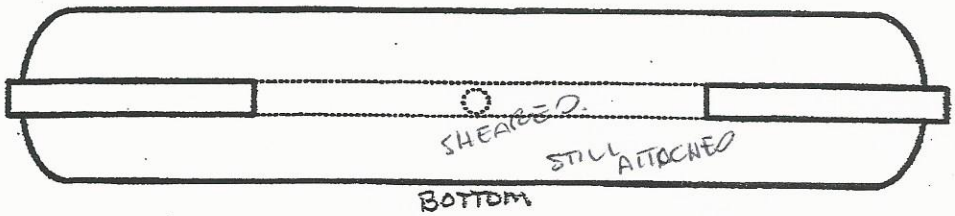
3371-4

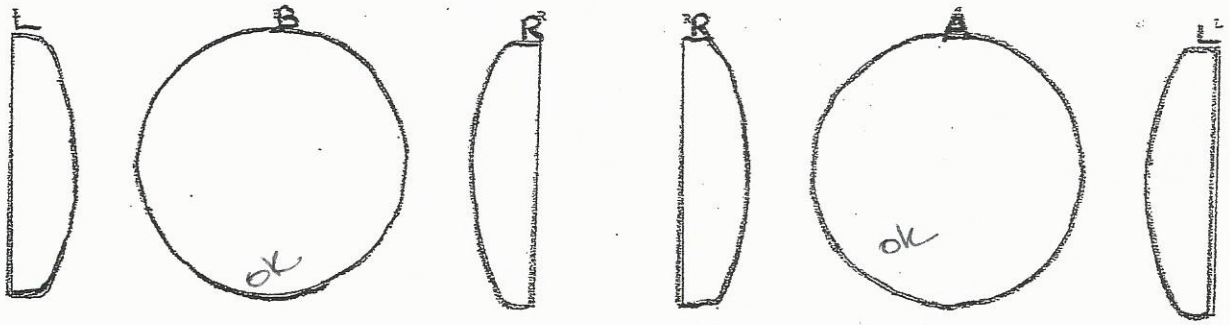


#1: 10½" wide
7½" long
1/8" deep









REMOVED WOUND FROM PRO

CTCX 735774

5/1/14

Tank Car Damage Assessment

Car Initials & Number CBTX 741925

Material

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification Nº: DOT111S100W1 | Tank Test pressure: | Tank Capacity: 31820

Build Date: 09-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

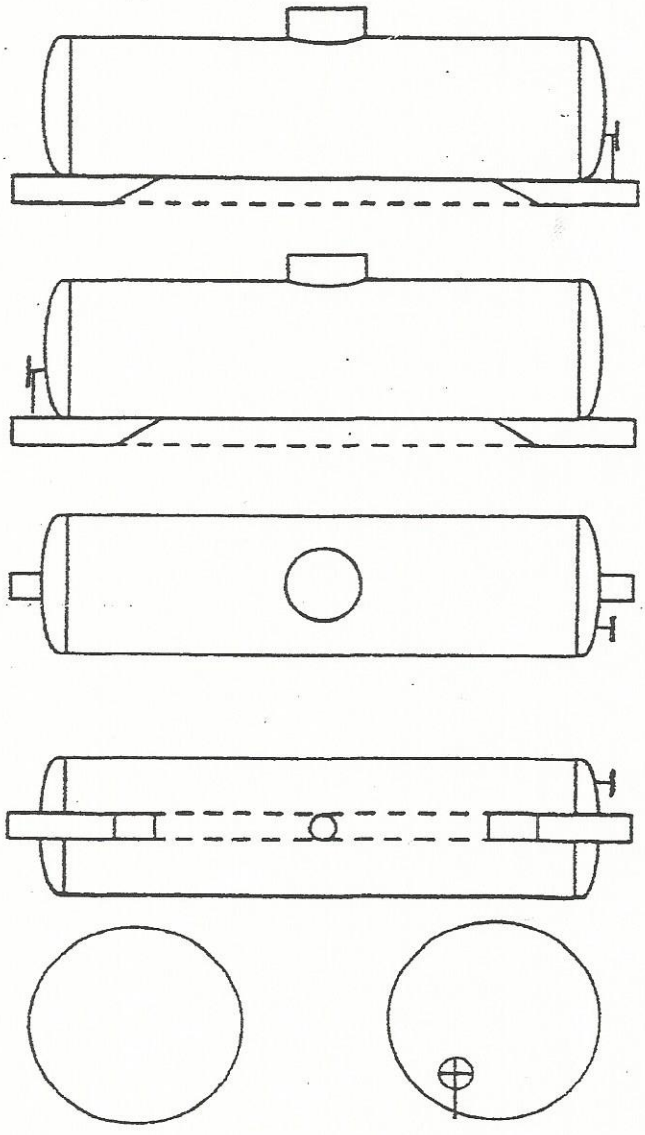
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	INTACT
☒ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	ABSORBENTS PADS IN PLACE.
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

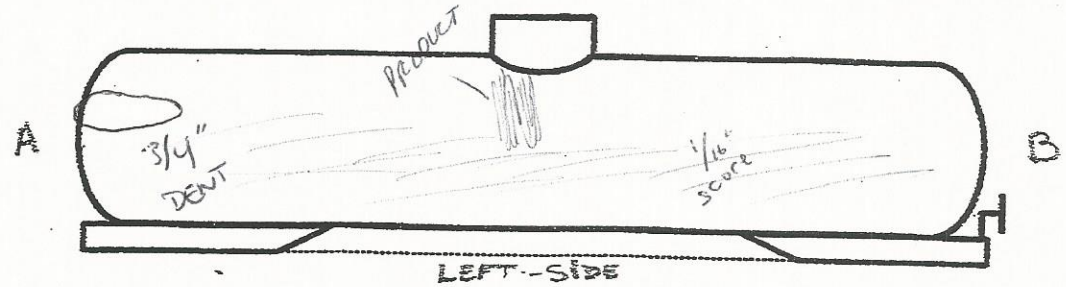
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

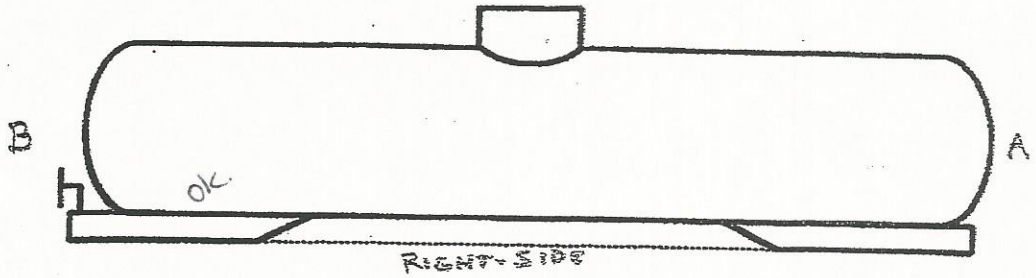


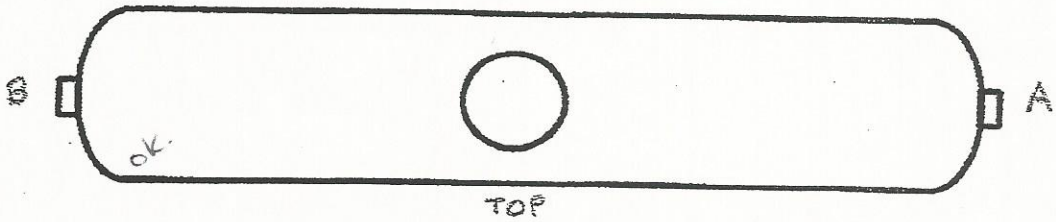
1642 HRS
76.3 °F
6 PSI

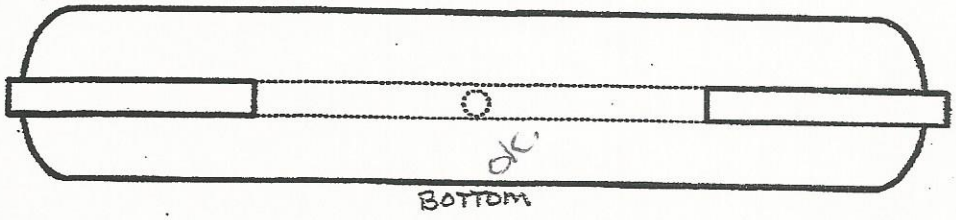
33714

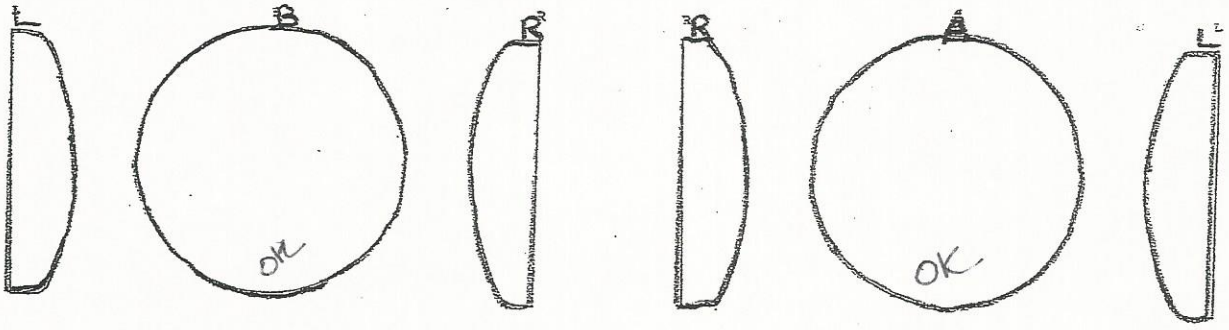


#1: ½" deep
45" long
7½" wide









CBTX 741925

5/1/14

Tank Car Damage Assessment

Car Initials & Number CBTX 736244

Material

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111A100W1 | Tank Test pressure: | Tank Capacity: 30070

Build Date: 04-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

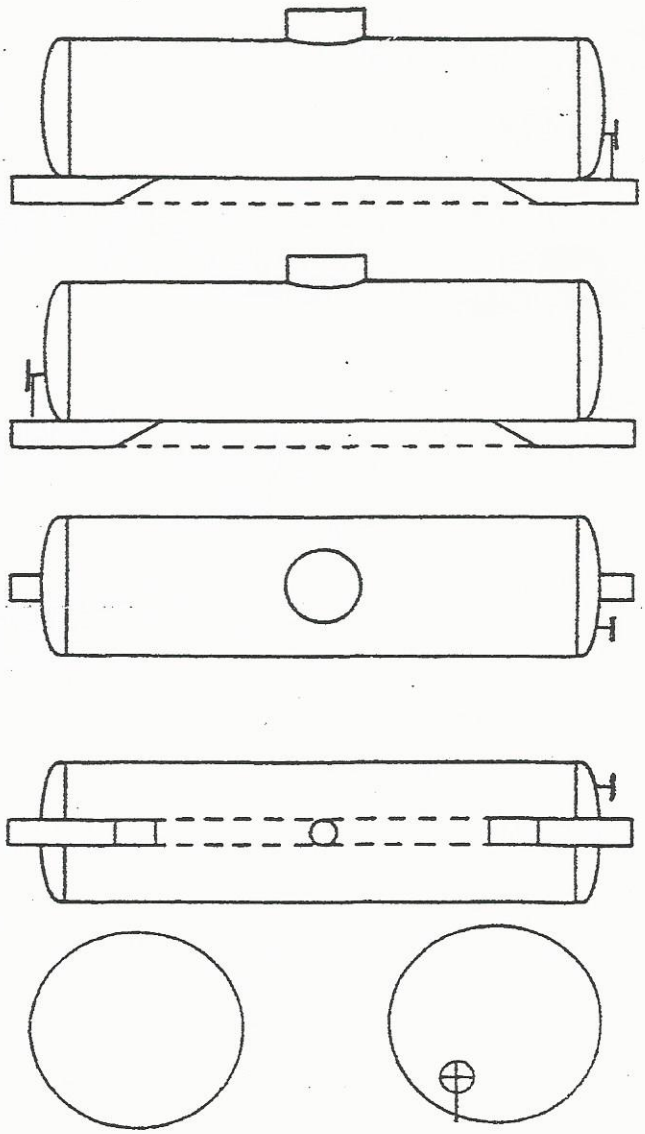
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	2"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	3"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	IN TACT
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

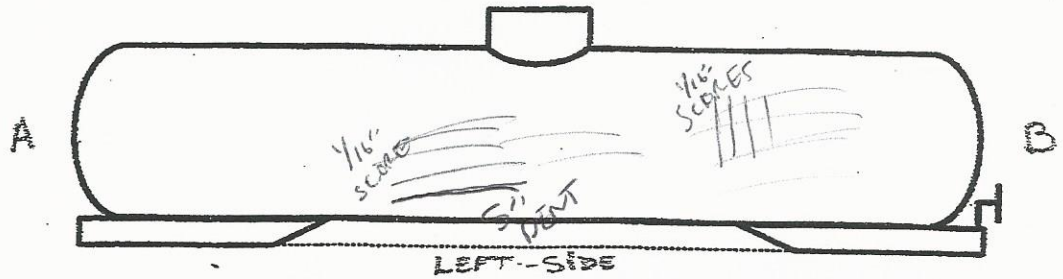
Jacket, Tank and Head Damage

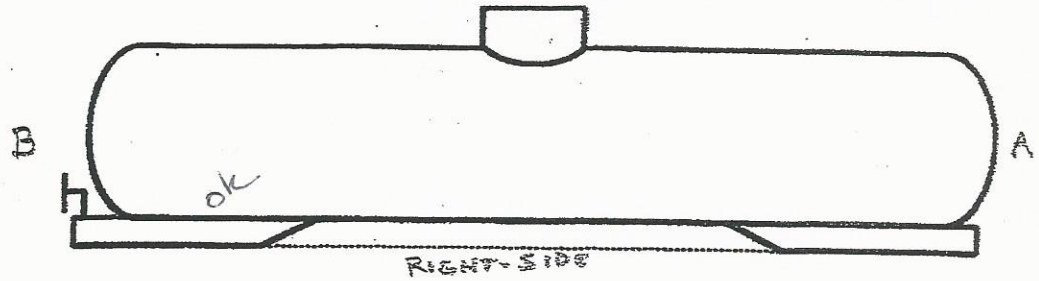
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

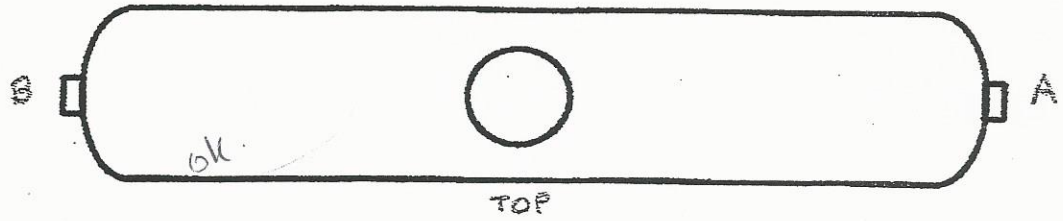


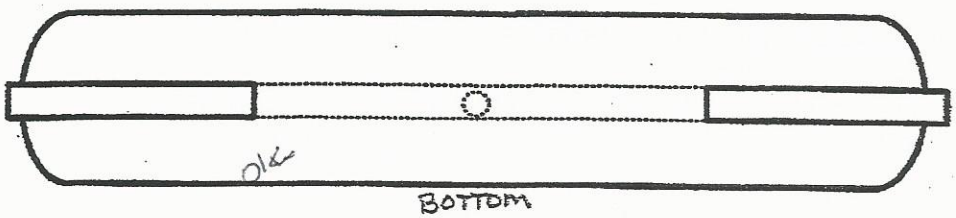
1054 HRS.
81.5°F
7 PSI

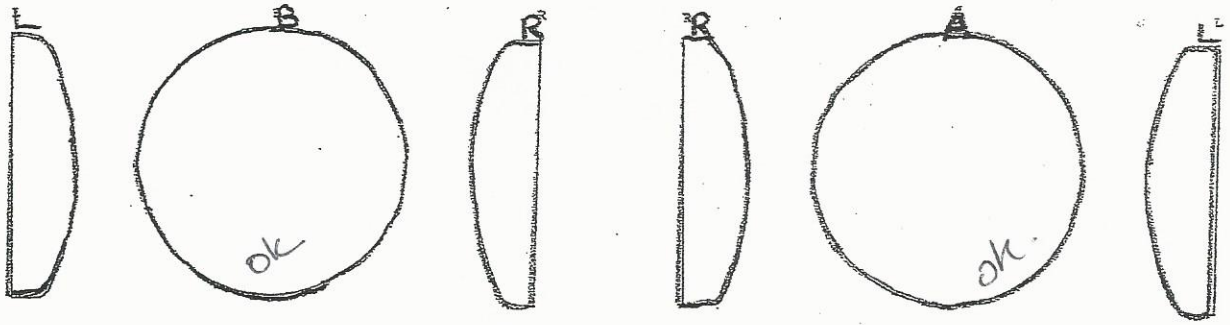
33714











CBTX 736244

5/1/14

Tank Car Damage Assessment

Car Initials & Number: CBTX 741725

Material:

Tank Car Characteristics / Features

Type of Car: ☐ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111 5100 W1 | Tank Test pressure: | Tank Capacity: 31800

Build Date: 07-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

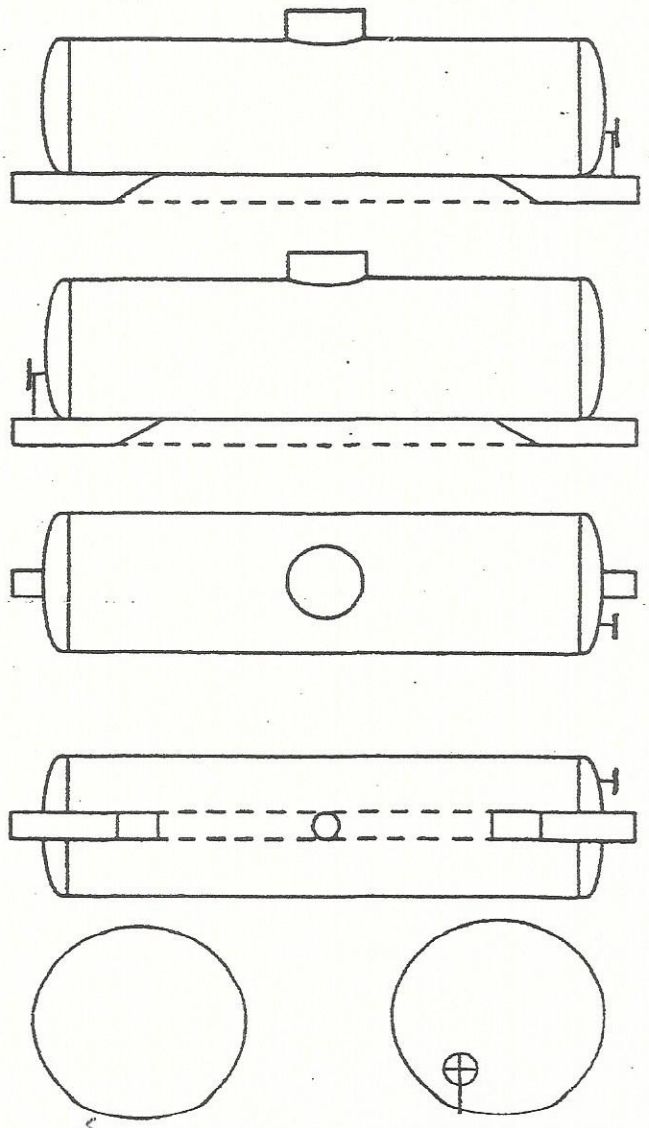
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3½"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	IN TACT
☒ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

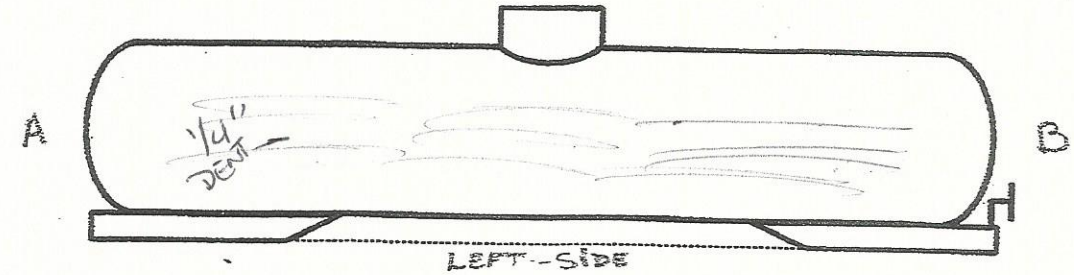
Jacket, Tank and Head Damage

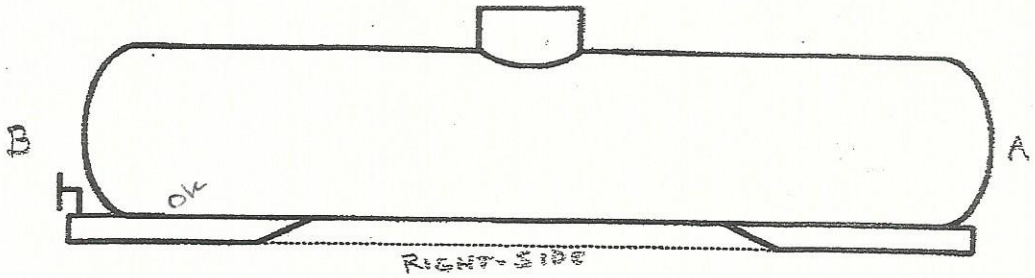
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

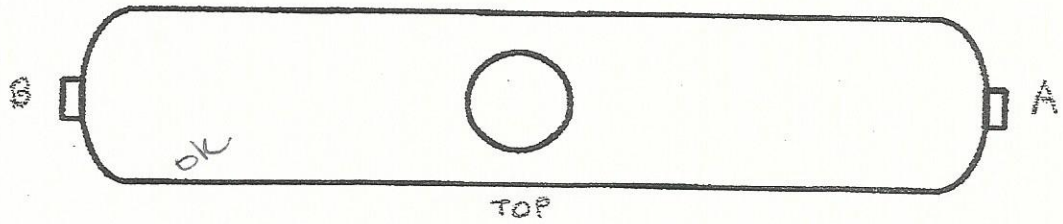


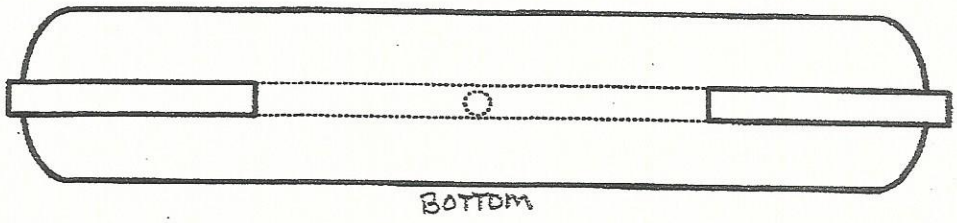
1110 NWS
BS: 7°F
7 PSI

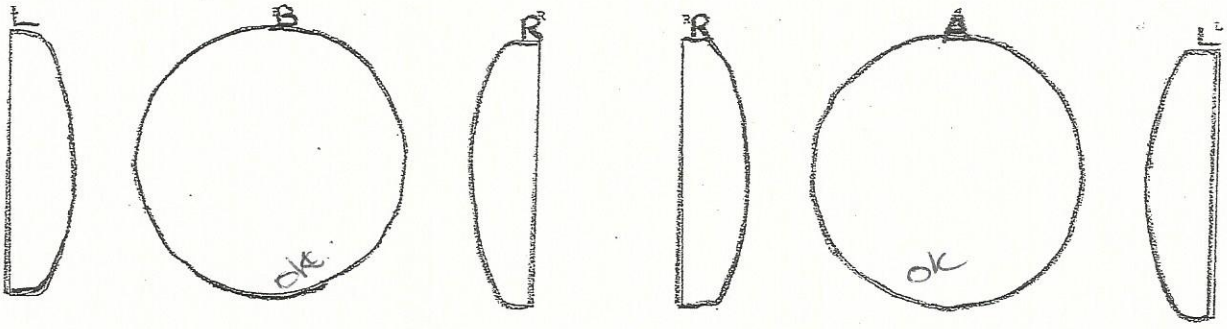
33714











CBTX 741725

5/1/14

Tank Car Damage Assessment

Car Initials & Number: CBTX 741864

Material:

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: DOT 111S100W1 | Tank Test pressure: | Tank Capacity: 31870

Build Date: 8-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: ☐ Y ☒ N | Thermal Protection: ☐ J Jacketed ☐ T Sprayed-on | Insulated: ☐ Y ☐ N

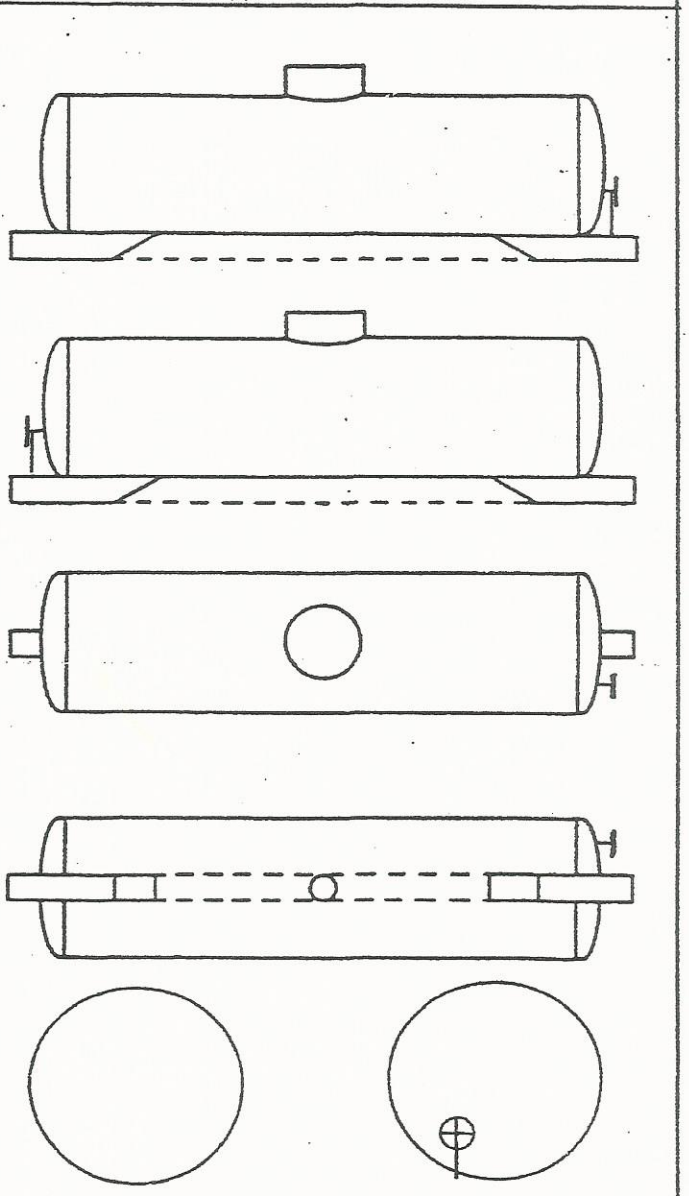
Construction Material: Type/Grade _____ Thickness _____ | Stress: ☐ T ☐ M ☐ C ☐ O ☐ N

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	☐ Y ☒ N ☐ Leaking	3"
☒ Vapor/ Air Valve	☐ Y ☒ N ☐ Leaking	2"
☒ Bottom Outlet Type: _____	☐ Y ☒ N ☐ Leaking	INTACT
☒ Pressure Relief Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Vacuum Relief Valve	☐ Y ☐ N ☐ Leaking	
☐ Gauging Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Manway Cover Plate	☐ Y ☐ N ☐ Leaking	
☐ Fill Hole	☐ Y ☐ N ☐ Leaking	
☐ Sample Line	☐ Y ☐ N ☐ Leaking	
☐ Thermo-meter Well	☐ Y ☐ N ☐ Leaking	
☐ Washout	☐ Y ☐ N ☐ Leaking	
☐ Sump	☐ Y ☐ N ☐ Leaking	
☐ Other Type: _____	☐ Y ☐ N ☐ Leaking	

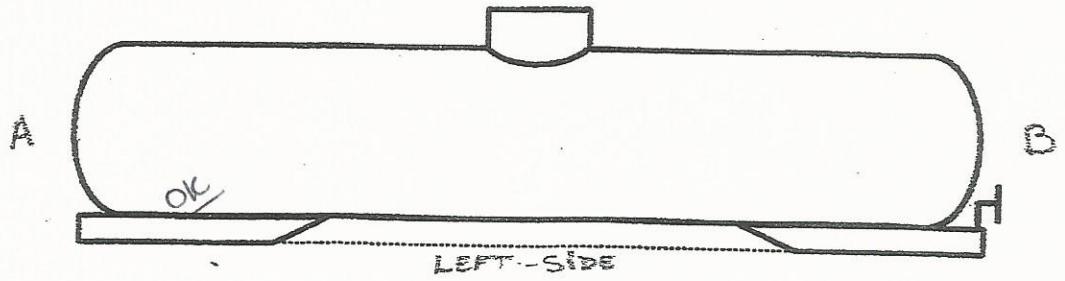
Jacket, Tank and Head Damage

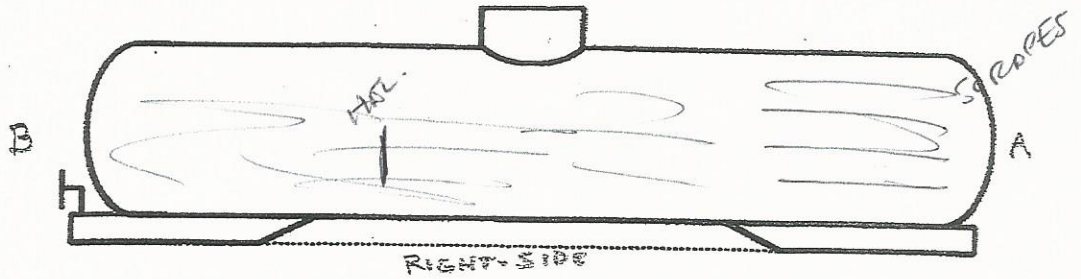
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

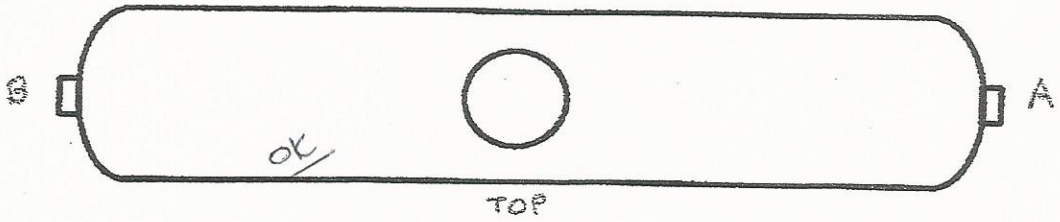


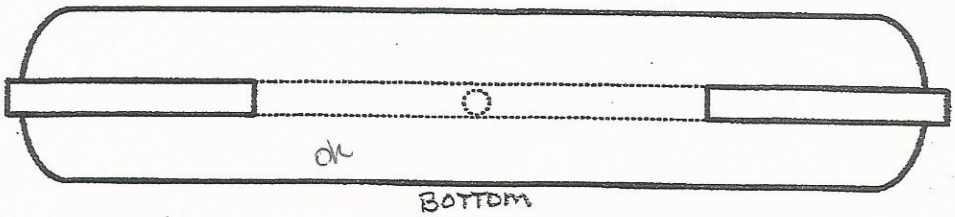
1158 HRS
81.5°F
9PSI

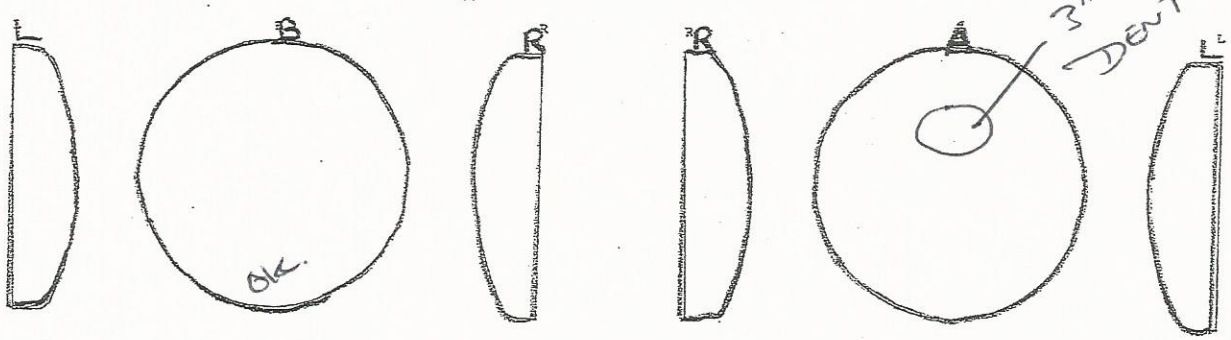
33714











CBTX 741864

5/2/14

Tank Car Damage Assessment

Car Initials & Number CBTX 74172

Material CRUDE OIL

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

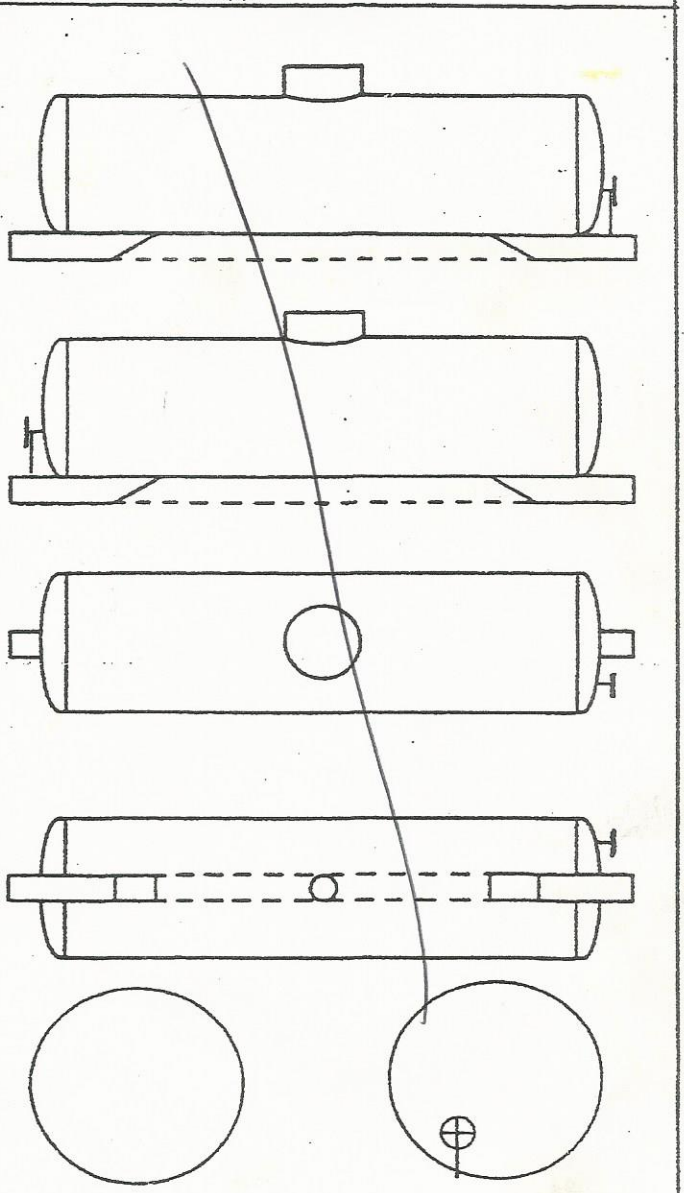
Specification N°: 111S100W1	Tank Test pressure:	Tank Capacity: 31820
Build Date: 07-2012	Underframe: ☐ Continuous ☒ Stub Sill	
Jacketed: [Y] [N]	Thermal Protection: [J] Jacketed [T] Sprayed-on	Insulated: [Y] [N]
Construction Material: Type/Grade _____ Thickness _____		Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	SHEARED BALL CLOSED.
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

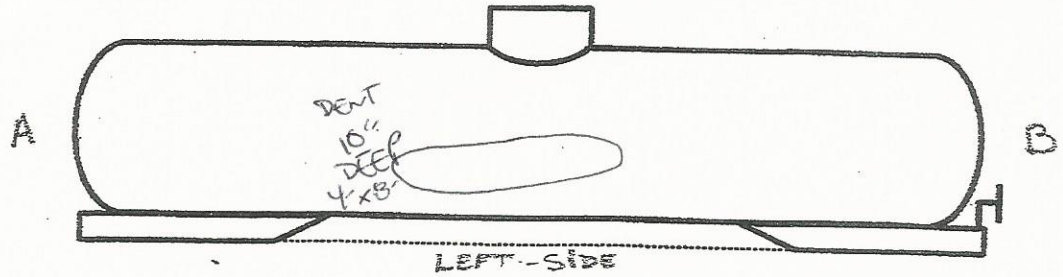
Jacket, Tank and Head Damage

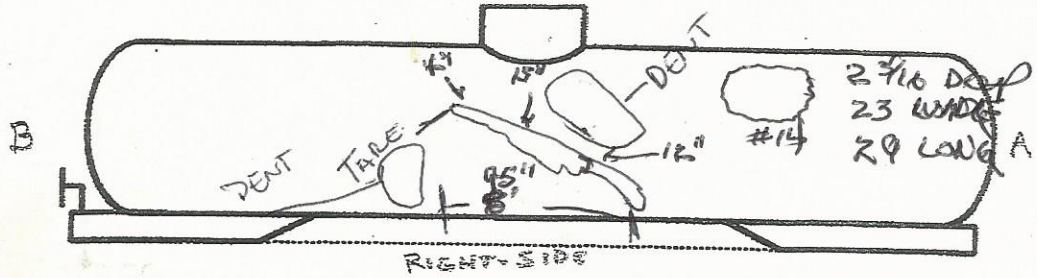
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

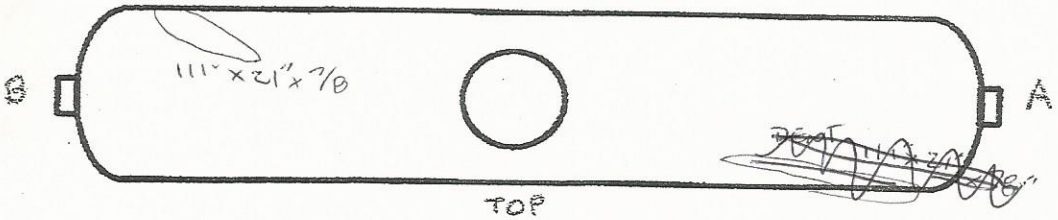


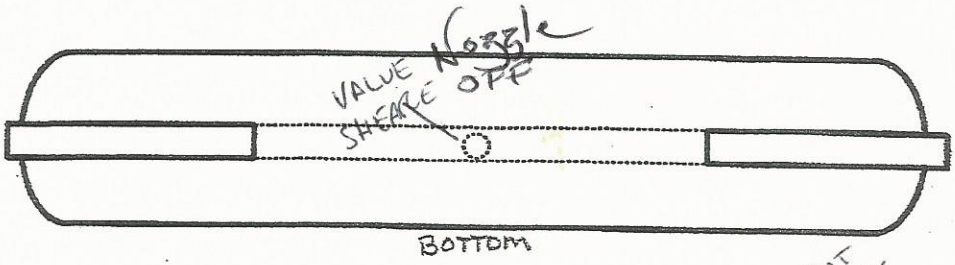
33714

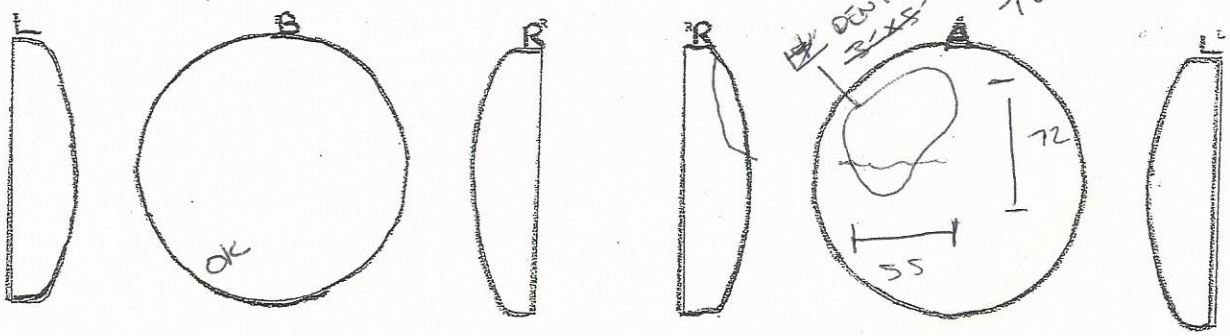
CBTX 741712







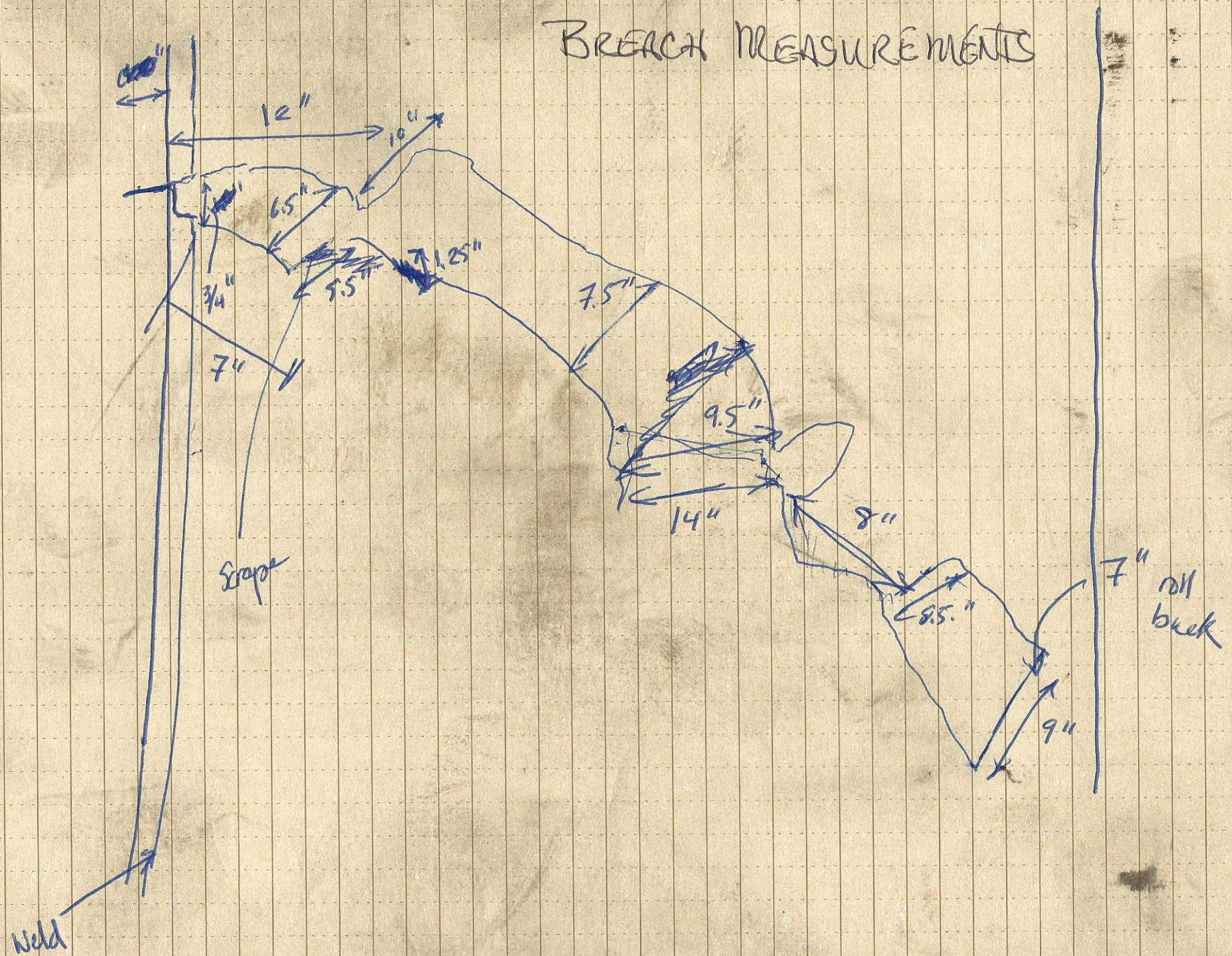




CBTX 741712

CBTX 741712

BREACH MEASUREMENTS



Rite in the Rain

NSN: 7530-01-577-8866

Scale: 1 square = ____

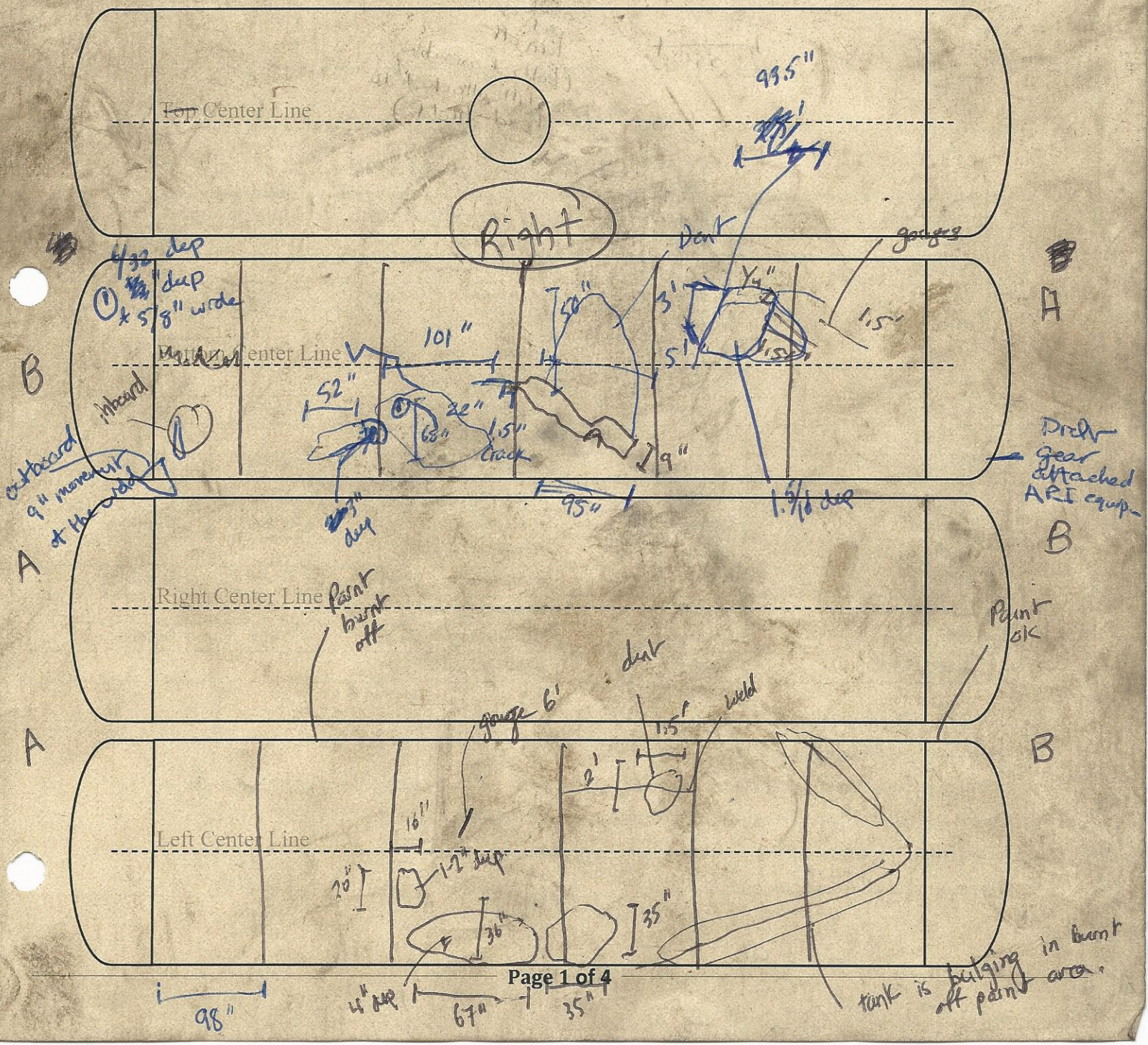
National Transportation Safety Board
Tank Car Damage Assessment Form

44

Reporting Marks	CBTX 741712		Car Location City/State		
Date inspected		Railroad	DOT Specification	DOT111	
Last Contained			Was product released?	YES	
(Indicate One)	~~Jacket~~ NO		Does car contain product	NO	
Car builder	ARI	Stub Sill Design		Built Date	7-2012
Capacity (GAL)			LD Limit (LB)		

Indicate number on figures below within damaged areas. (sketched in by inspector)

A-END ~~Left~~ Right

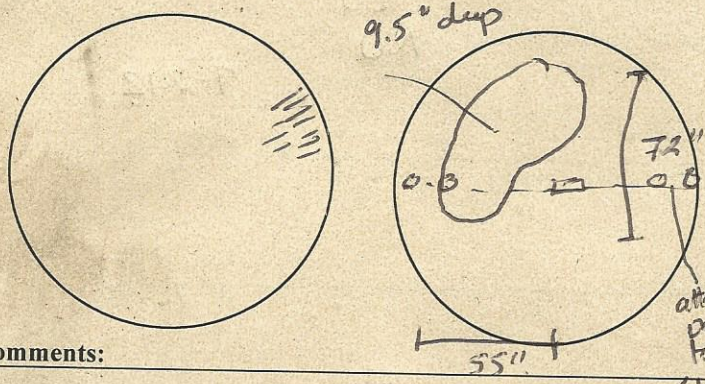


National Transportation Safety Board
Tank Car Damage Assessment Form

Half-height head shield

5" deep impact

B-Head **A-Head**



	Station Stencil	Qual.	Due
Tank Qual.	upward bend		
Thickness			
Serv. Equip.			
PRD			
Lining			
Rule 88			
Stub Sill			

Comments:

TANK OR JACKET DAMAGE

1. **Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)**

1.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
2	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
3	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
4	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
5	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
6	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
7	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
8	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						

2. **Was this tank car exposed to fire?**
3. **How long was the car exposed to fire?**
4. **What percentage/locations of the tank were exposed to fire?** **Indicate location in figures on page 1.**
5. **What material burned to create the fire that the car was exposed to?**
6. **To what degree did the car roll? Initially** ☐° **degrees and stopped at** ☐°
7. **Distance traveled from track center? B-end?** _____ **A-end?** _____ **Center?** _____

8. **Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...**

VALVE DAMAGE

Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

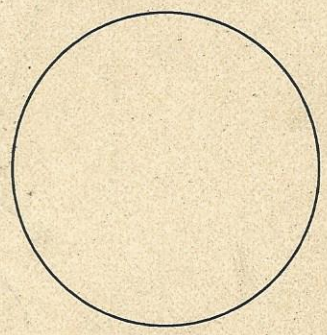
TOP

1. **Number of damaged valves?_____ Document station stencil if other than qual. Decal _____**

a	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
b	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
c	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
d	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
e	Type of damaged valve?		Manufacturer?		Cause?		
	Gasket Type?		O-ring type?		Serial Number		

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.

A-End



BOTTOM

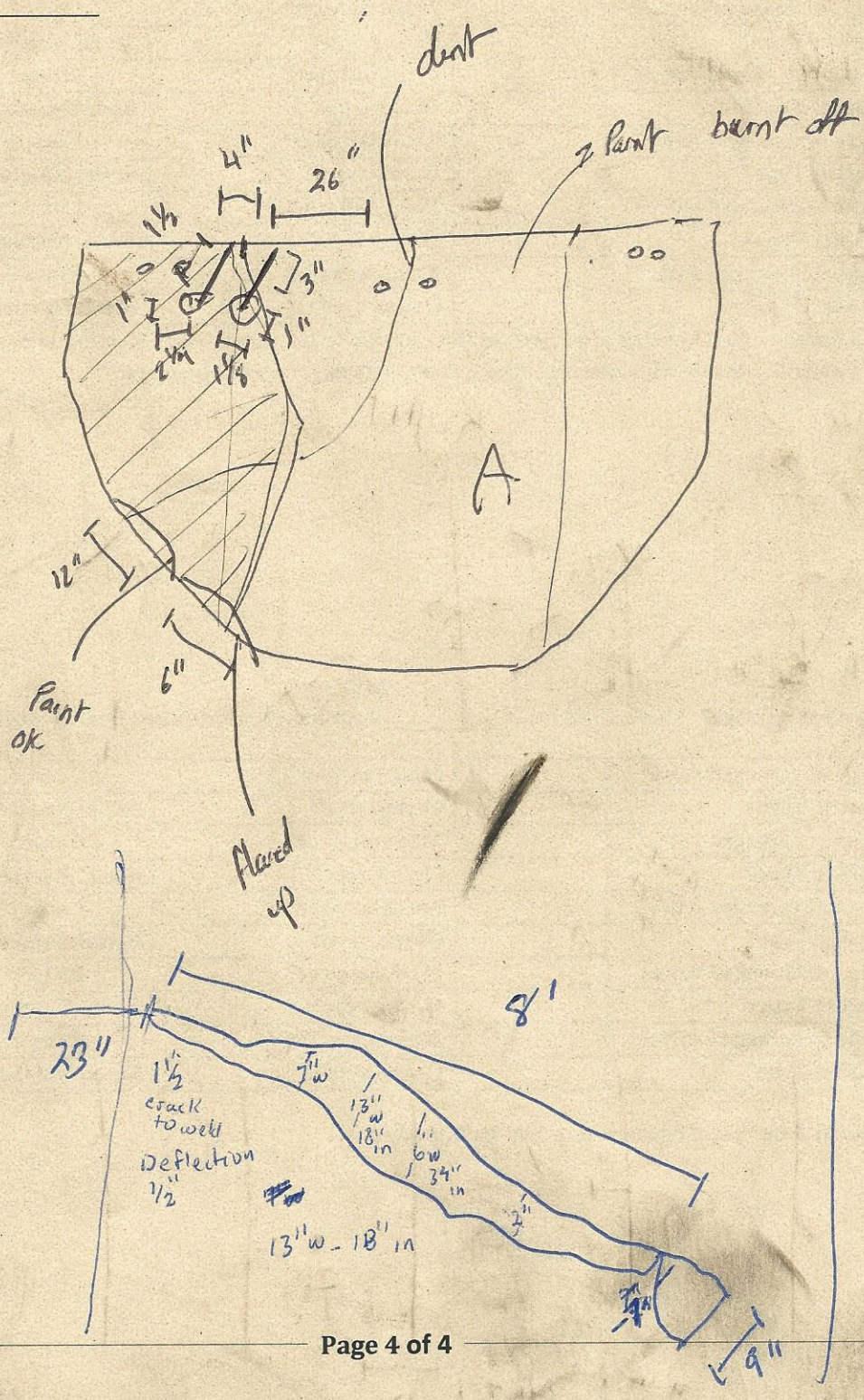
2. **Description of damage? Valve, Coils etc…_____Document station stencil if other than qual. Decal_____**

a	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
b	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
c	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
d	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
e	Type of damaged valve?		Manufacturer?		Cause?		
	Gasket Type?		O-ring type?		Serial Number		

Other information or description deemed pertinent by inspector:

National Transportation Safety Board
Tank Car Damage Assessment Form

Inspector's Name _____



5/11/14

Tank Car Damage Assessment

Car Initials & Number: CBTX 741720

Material: CRUDE OIL

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°:	Tank Test pressure:	Tank Capacity:
111S100W1		31820

Build Date:	Underframe:
07-2012	☐ Continuous ☒ Stub Sill

Jacketed:	Thermal Protection:	Insulated:
[Y] [N]	[J] Jacketed [T] Sprayed-on	[Y] [N]

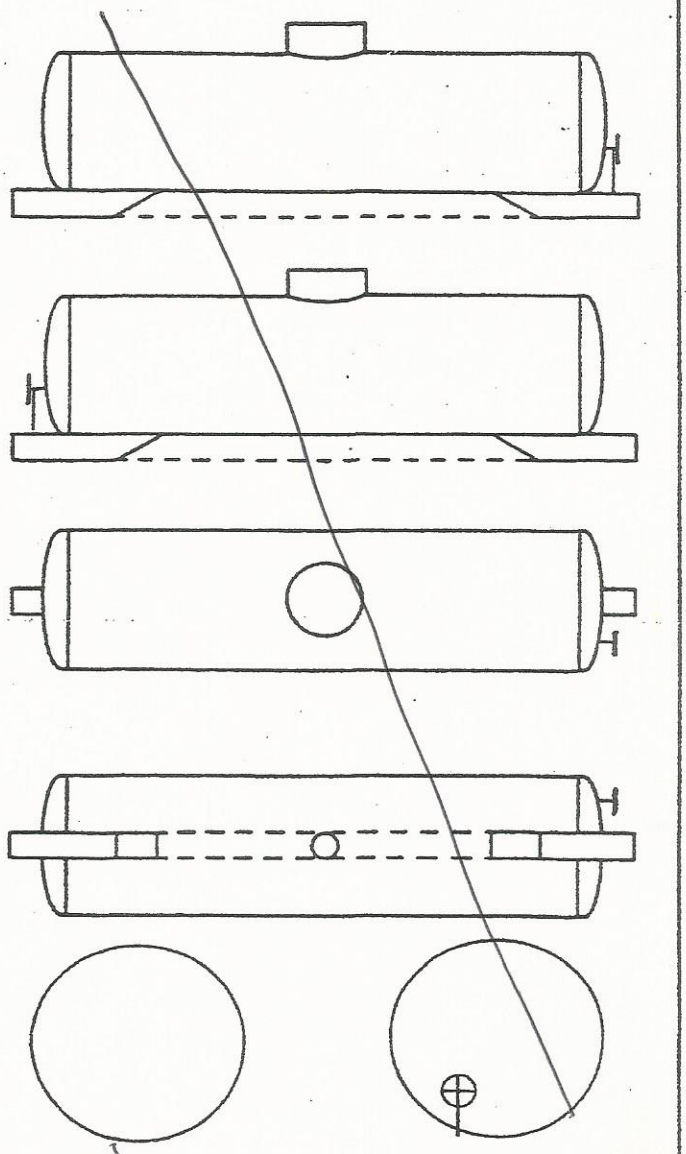
Construction Material: Type/Grade _____ Thickness _____ Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	intact
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

Jacket, Tank and Head Damage

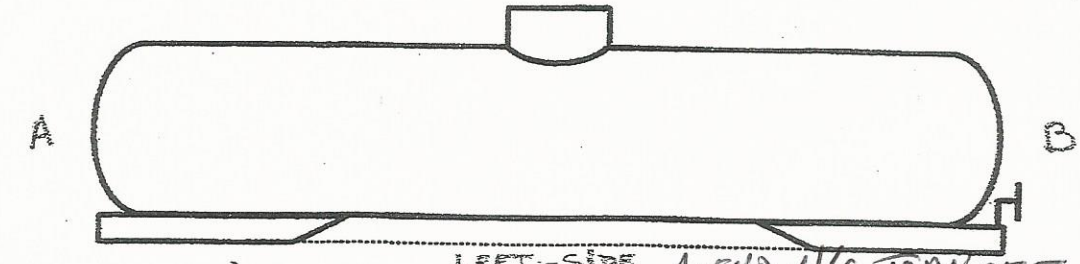
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).



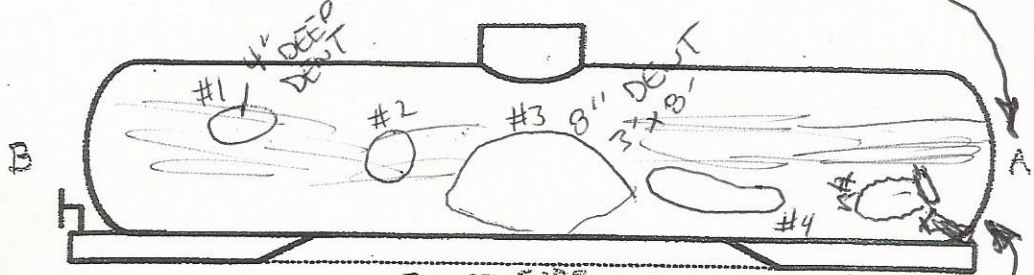
1210 HRS
BPSE
83.2°F

33714

CBTX 741720



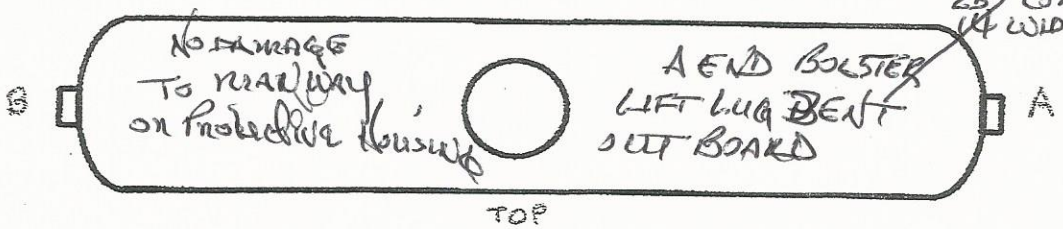
#1: 1" deep
30" ~~wide~~ long
17½" ~~long~~ wide



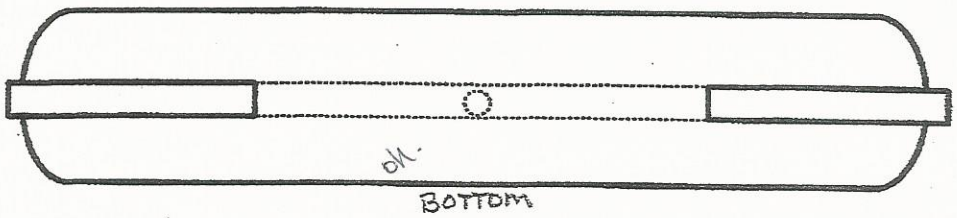
#2: 1¼" deep
18¼" wide
19" long

#3: 4½" deep
57" ~~wide~~ long
117" ~~long~~ wide

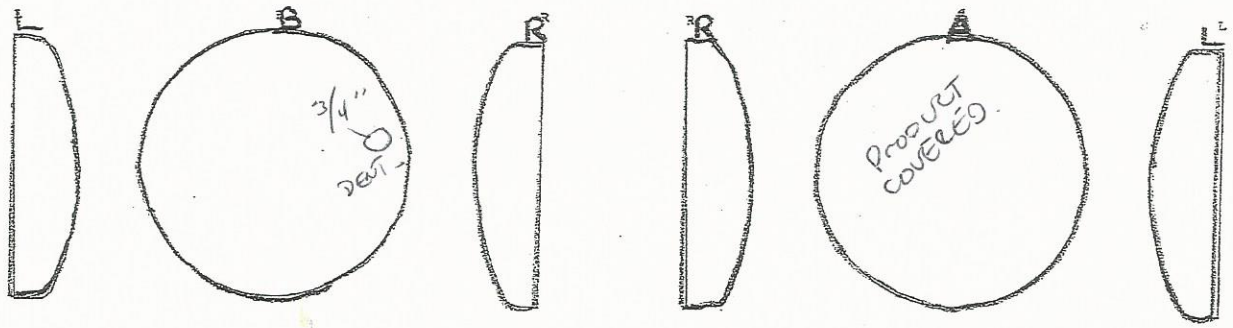
#5: 2½ Deep
23 LONG
14 WIDE



#4: 1" deep
12" wide
47¼" long

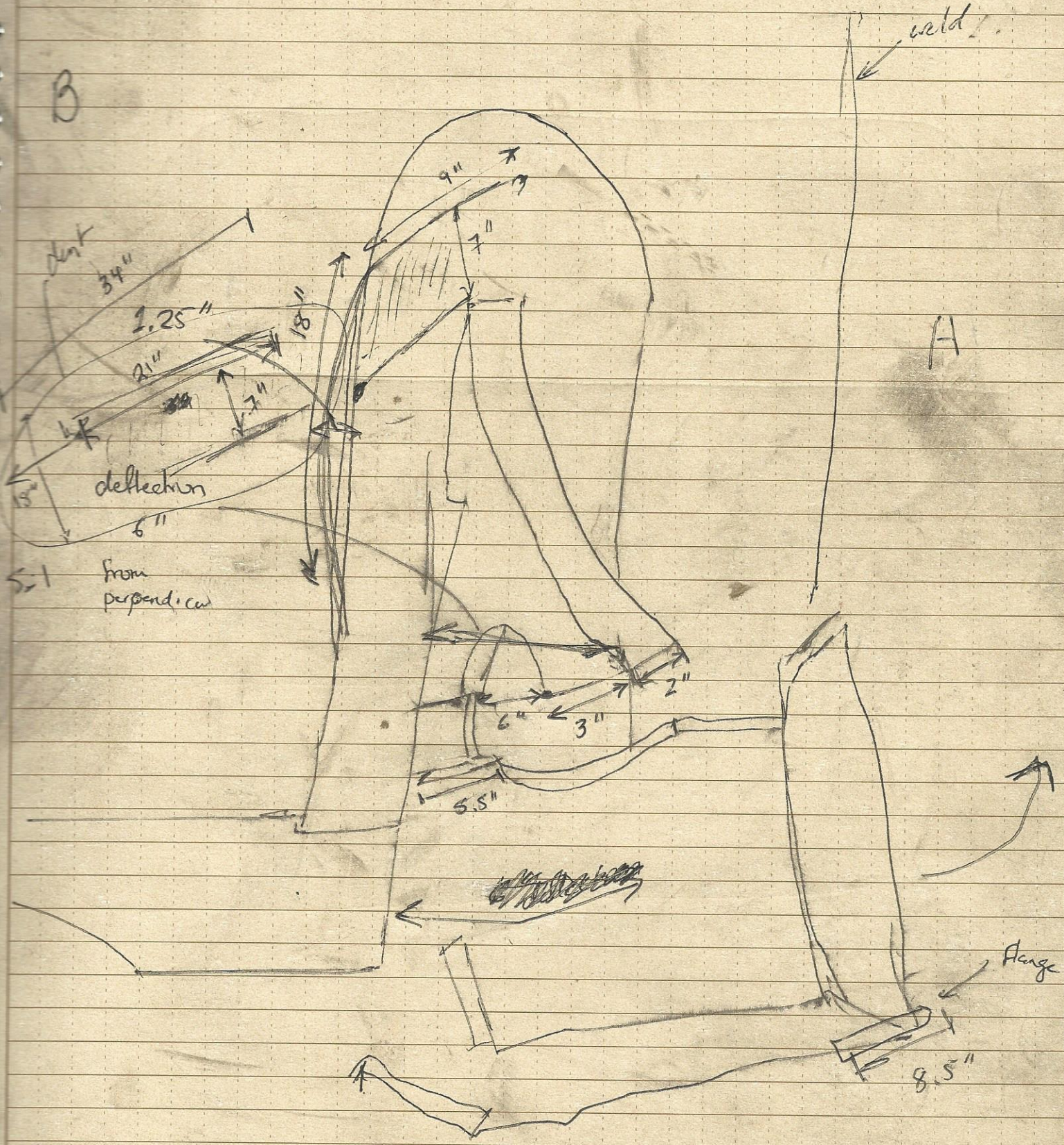


Right side bolster partially dislodged from tank, 1¼" off tank.
18½" long.



Gladstone - field.

CB TX 741720



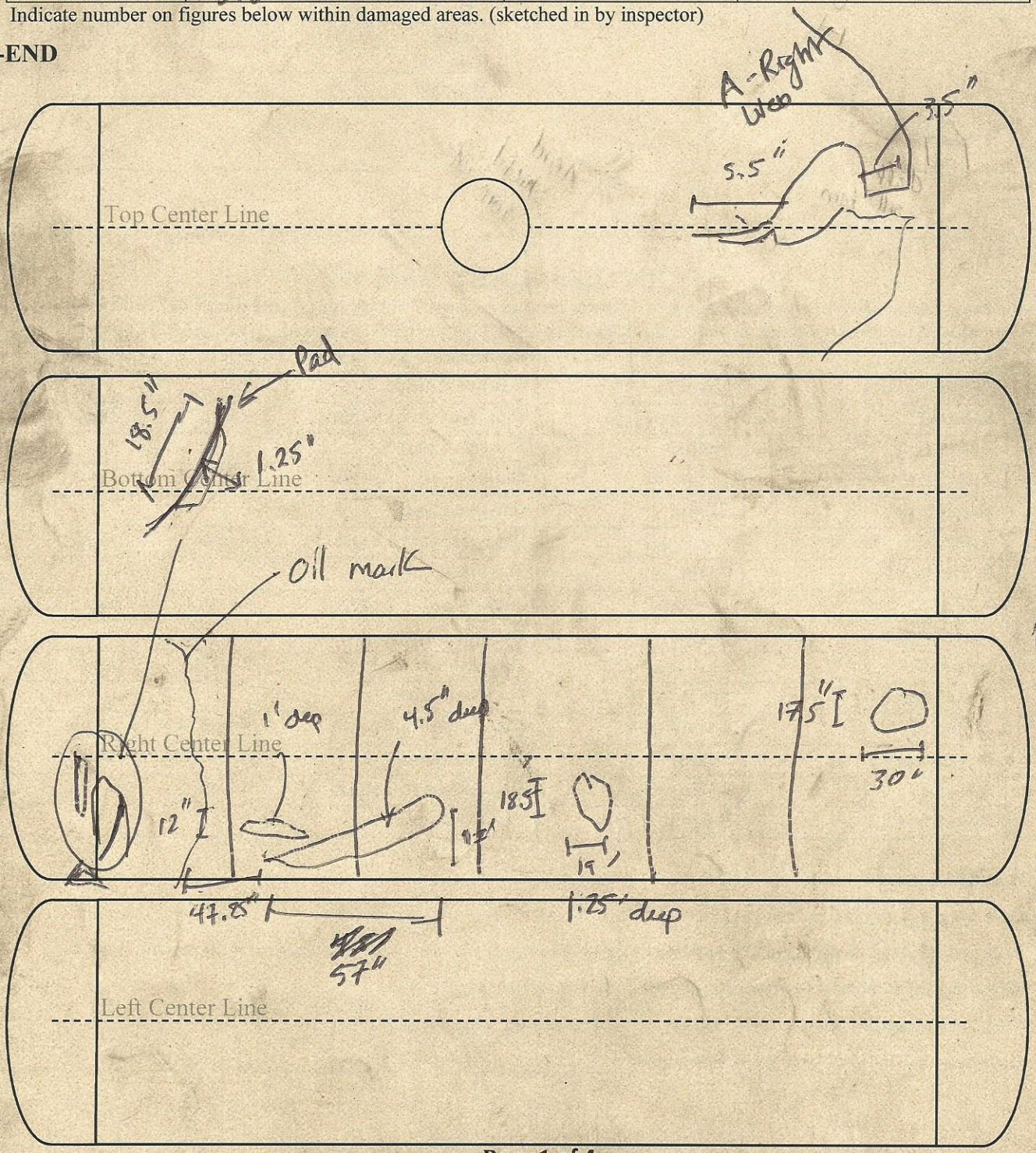
National Transportation Safety Board
Tank Car Damage Assessment Form

45

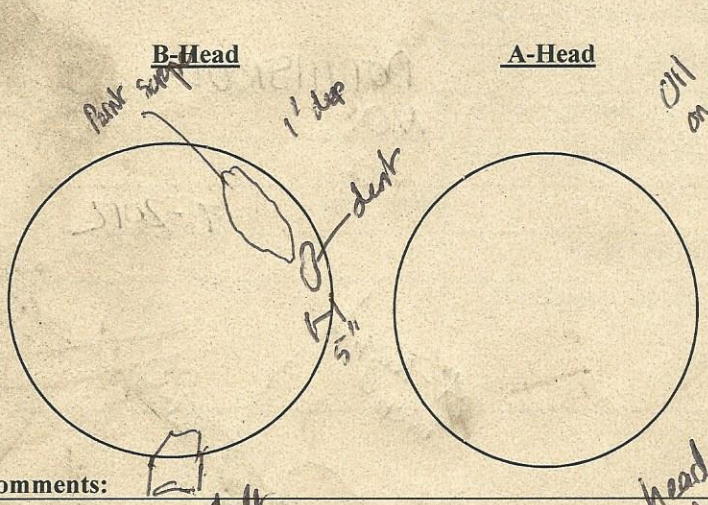
Reporting Marks	CBTX 741720		Car Location City/State		
Date inspected		Railroad	DOT Specification	DOT 111S100W1	
Last Contained			Was product released?	NO	
(Indicate One)	~~Jacket~~		Does car contain product	Yes	
Car builder	ARI	Stub Sill Design		Built Date	7-2012
Capacity (GAL)	31820		LD Limit (LB)		

Indicate number on figures below within damaged areas. (sketched in by inspector)

A-END



National Transportation Safety Board
Tank Car Damage Assessment Form



	Station Stencil	Qual.	Due
Tank Qual.			
Thickness			
Serv. Equip.			
PRD			
Lining			
Rule 88			
Stub Sill			

Comments:

TANK OR JACKET DAMAGE

1. **Document estimated location of damage on Figures located on page 1 of this report and document dimensions coinciding with number below. (photos should be numbered and attached to coincide with numbers below)**

1.	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
2	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
3	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
4	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
5	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
6	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
7	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						
8	Affected?		Location?		Dimensions:	Length		Width		Depth	
-	Defect type?		Shape?		Possible Cause?						

2. **Was this tank car exposed to fire?**
3. **How long was the car exposed to fire?**
4. **What percentage/locations of the tank were exposed to fire? Indicate location in figures on page 1.**
5. **What material burned to create the fire that the car was exposed to?**
6. **To what degree did the car roll? Initially ☐° degrees and stopped at ☐°**
7. **Distance traveled from track center? B-end? _____ A-end? _____ Center? _____**

8. **Brief description of details of surfaces tank was exposed after derailment? E.g. mud, track, rocks, etc...**

VALVE DAMAGE

Utilize Form TCAD-1.2 and supplement description as indicative of damage below:

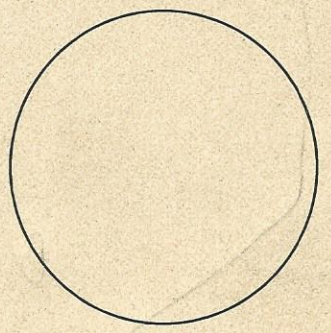
TOP

1. **Number of damaged valves?**_____ **Document station stencil if other than qual. Decal** _____

a	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
b	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
c	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
d	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
e	Type of damaged valve?		Manufacturer?		Cause?		
	Gasket Type?		O-ring type?		Serial Number		

Sketch in dome or dual housing arrangement information in relation to valve location in provided figure. Valve Lettering should coincide with lettering above, along with any attached pictures.

A-End



BOTTOM

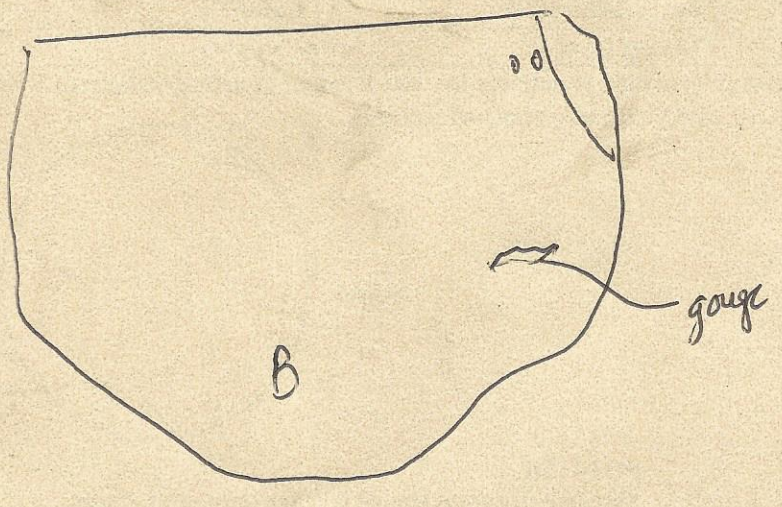
2. **Description of damage? Valve, Coils etc...**_____**Document station stencil if other than qual. Decal**_____

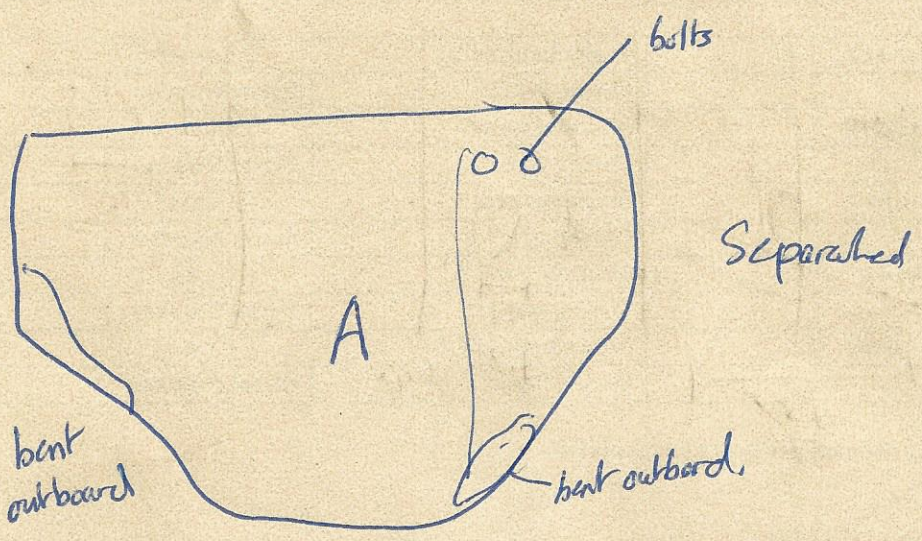
a	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
b	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
c	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
d	Type of damaged valve?		Manufacturer?		Cause?		
-	Gasket Type?		O-ring type?		Serial Number		
e	Type of damaged valve?		Manufacturer?		Cause?		
	Gasket Type?		O-ring type?		Serial Number		

Other information or description deemed pertinent by inspector:

National Transportation Safety Board
Tank Car Damage Assessment Form

Inspector's Name _____





Tank Car Damage Assessment

Car Initials & Number: CBTX 741672

Material:

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification Nº: 111S100W1 | Tank Test pressure: | Tank Capacity: 31820

Build Date: 07-2012 | Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

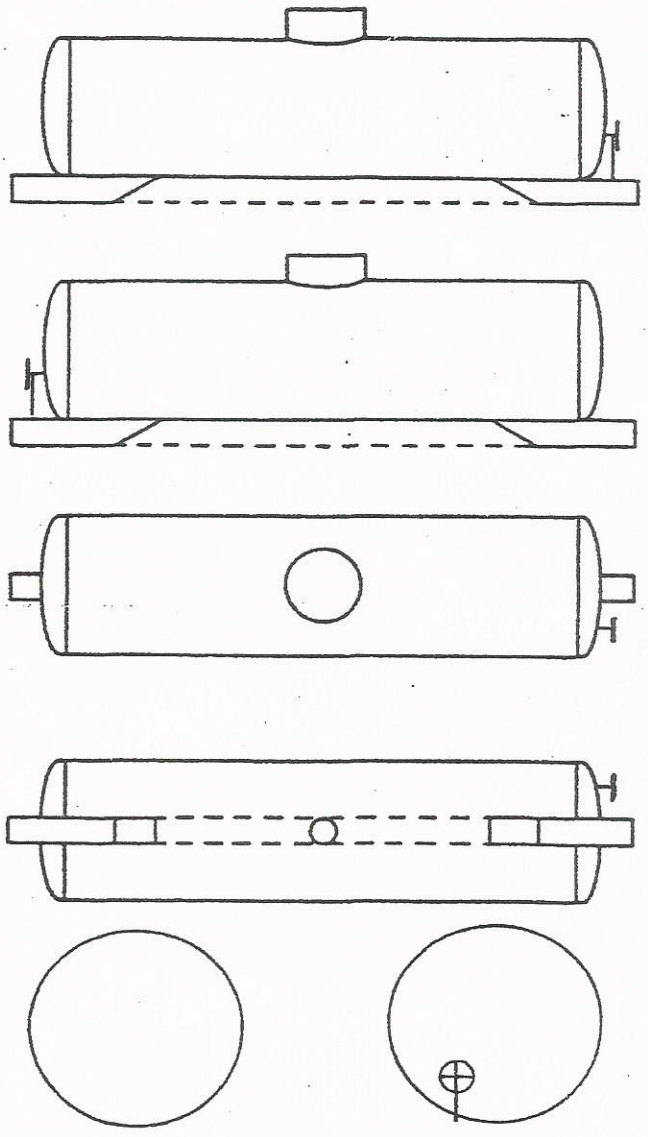
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	Valve and handle are intact
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

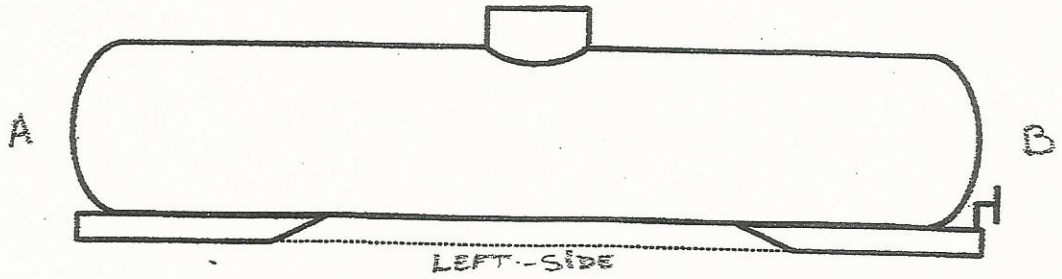
Jacket, Tank and Head Damage

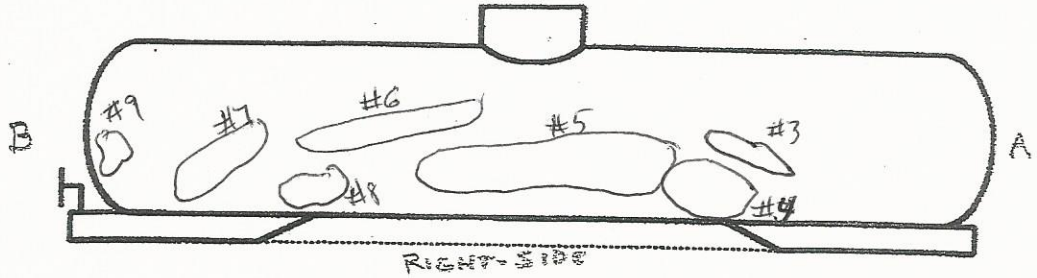
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

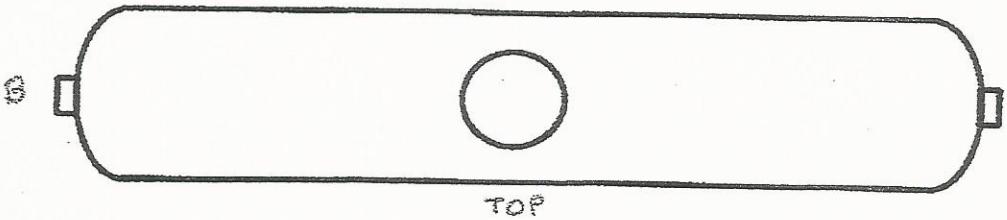


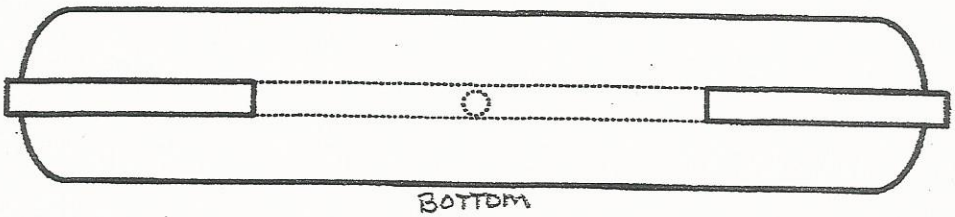
1433
11 psi
77.2°F

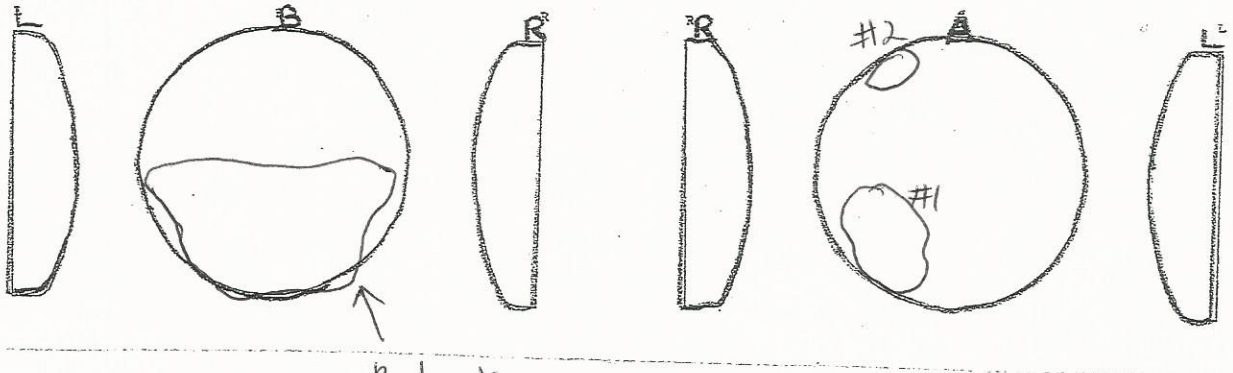
33714











#1: 27" long
39" wide
4" deep

#2: 14½" wide
19½" long
2" deep

#3: 9" long
57" wide
3/8" deep

#4: 65" long
44" wide
3" deep

#5: 190" long
4" wide
3½" deep

#6: 132" long
14½" wide
7/8" deep

#7: 115" long
38" wide
4" deep

#8: 46" long
16" wide
1¼" deep

#9: 13" long
14" wide
1¾" deep

CBTX 741672

Tank Car Damage Assessment

CTCX.

Car Initials & Number 743023

Material

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other ____________

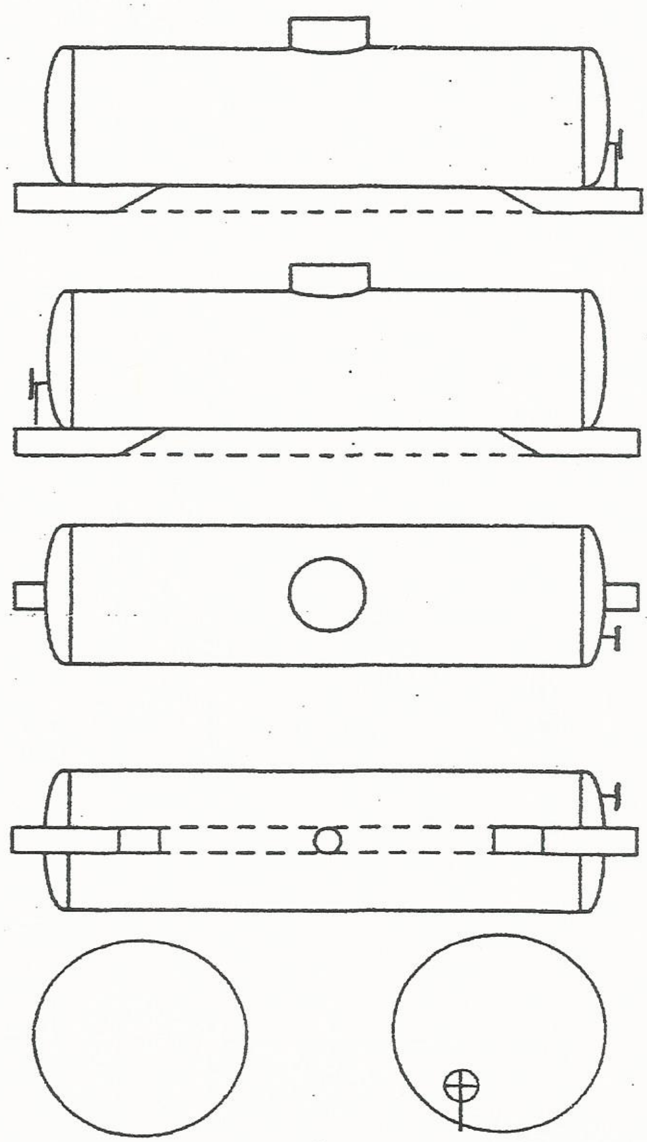
Specification N°: DOT 111S100W1	**Tank Test pressure:**	**Tank Capacity:** 31830
Build Date: 05-2012	**Underframe:** ☐ Continuous ☒ Stub Sill	
Jacketed: [Y] [N] (N marked)	**Thermal Protection:** [J] Jacketed [T] Sprayed-on	**Insulated:** [Y] [N]
Construction Material: *Type/Grade* ________ *Thickness* ________		**Stress:** [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] (N marked) ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] (N marked) ☐ Leaking	2"
☒ Bottom Outlet Type: ______	[Y] [N] (N marked) ☐ Leaking	SHEARED OFF
☐ Pressure Relief Device Type: ______	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: ______	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: ______	[Y] [N] ☐ Leaking	

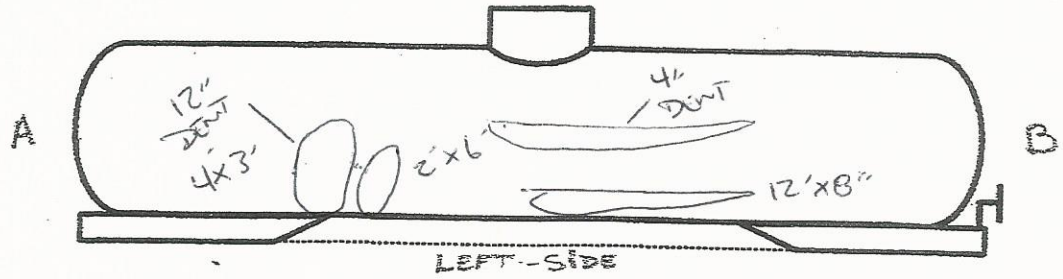
Jacket, Tank and Head Damage

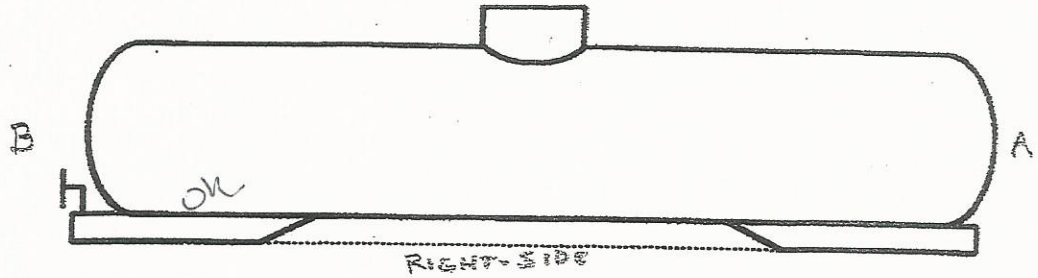
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

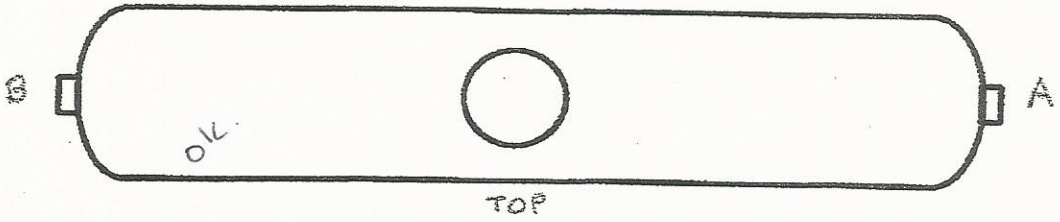


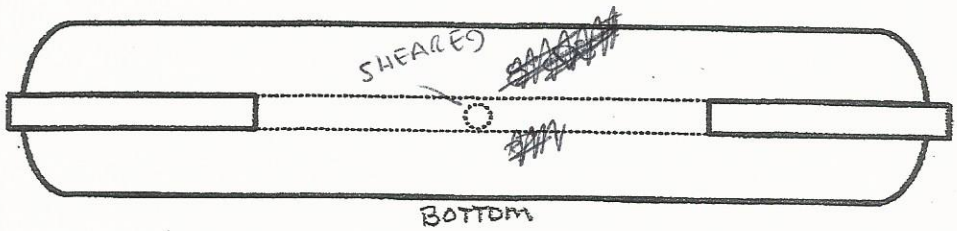
824 HRS.
4PSI
62.5 F.

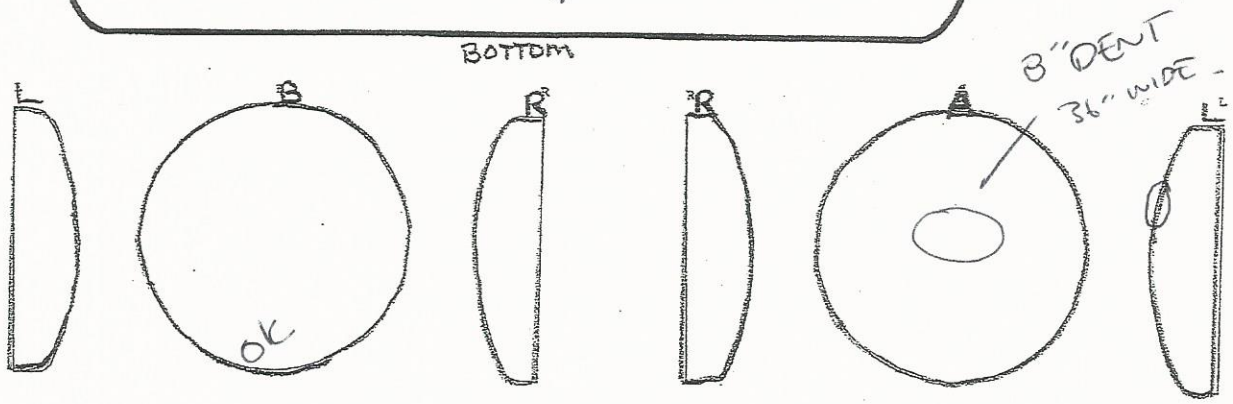
33714











CTCX 743023

5/3/14

Tank Car Damage Assessment

Car Initials & Number: CBTX 743190

Material:

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

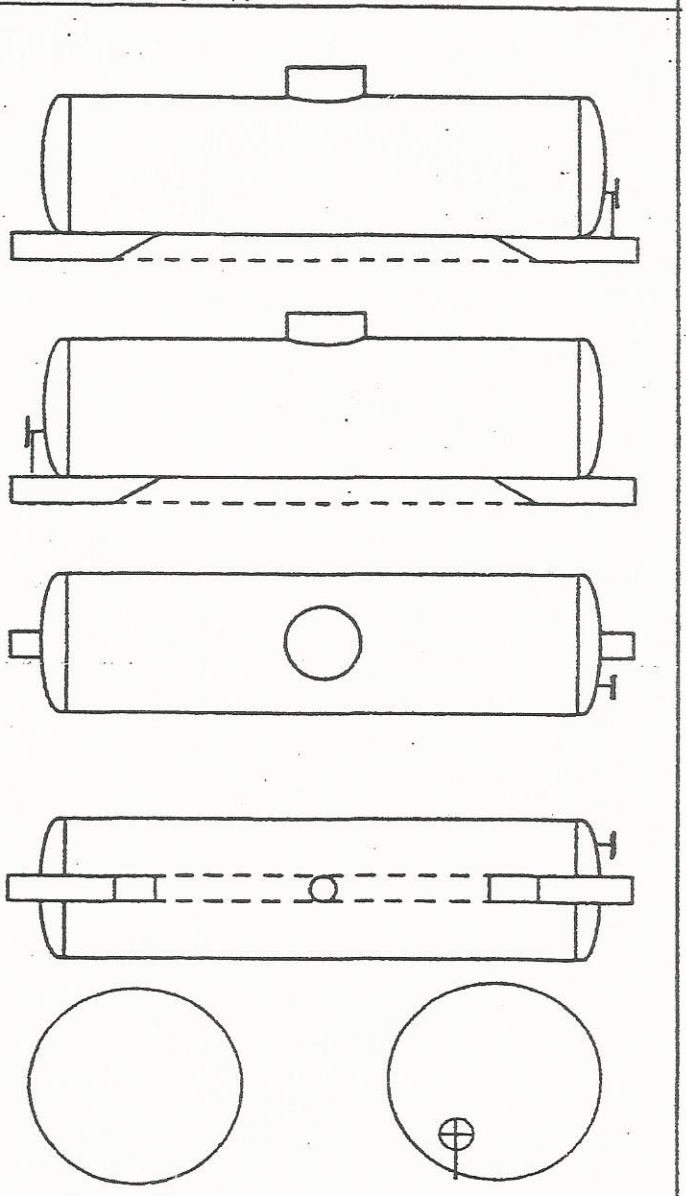
Specification N°: 111S100W1	Tank Test pressure:	Tank Capacity: 31836
Build Date: 04-2013	Underframe: ☐ Continuous ☒ Stub Sill	
Jacketed: [Y] [N]	Thermal Protection: [J] Jacketed [T] Sprayed-on	Insulated: [Y] [N]
Construction Material: Type/Grade _____	Thickness _____	Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	valve and handle intact
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

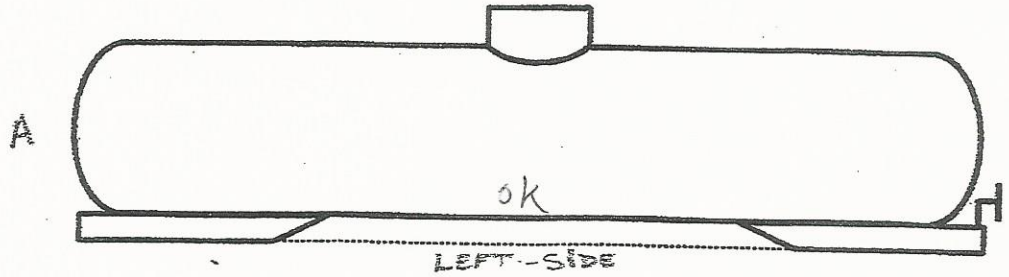
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

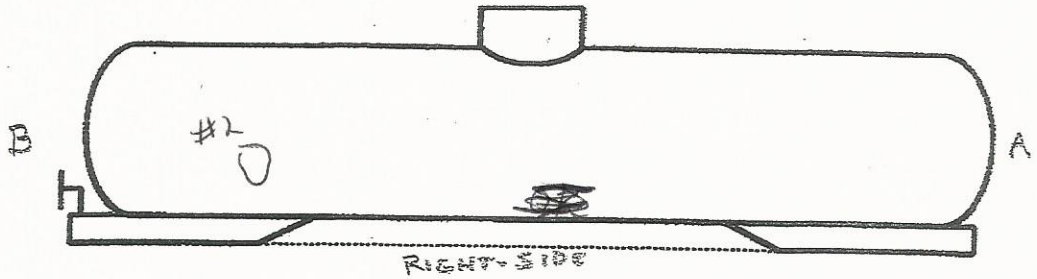


1400 hrs
14 psi
85.4 °F

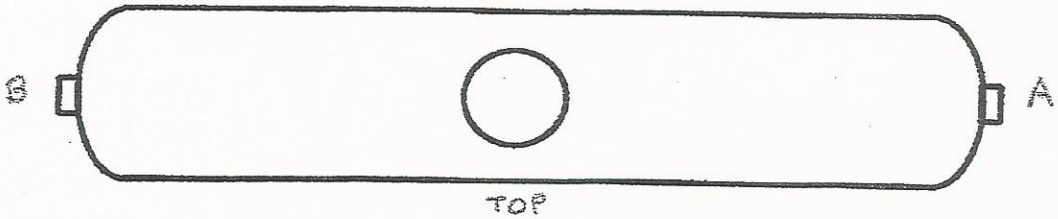
33714

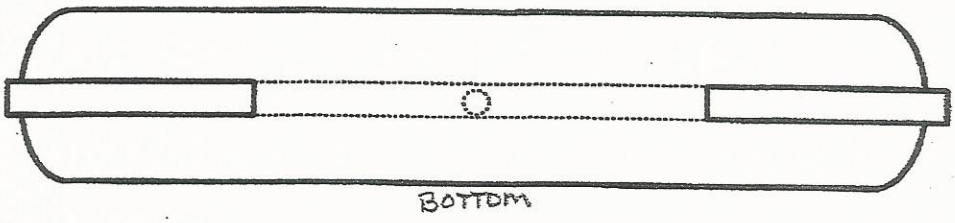


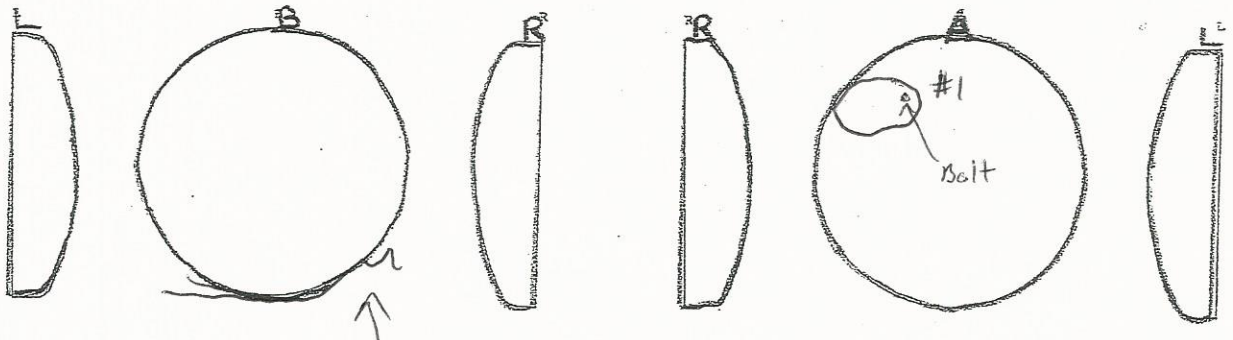
#1: 24½" wide
32½" long
2 3/8" deep



#2: 7" long
13" wide
5/8" deep







Cat walk damage

CBTX 743190

5/3/M

Tank Car Damage Assessment

Car Initials & Number: CBTX 743197

Material:

Tank Car Characteristics/Features

Type of Car: [X] Non-pressure [ ] Pressure [ ] Cryogenic [ ] Other _____

Specification N°: 111S100W1 | Tank Test pressure: | Tank Capacity: 31870

Build Date: 04-2013 | Underframe: [ ] Continuous [X] Stub Sill

Jacketed: [Y] [N] | Thermal Protection: [J] Jacketed [T] Sprayed-on | Insulated: [Y] [N]

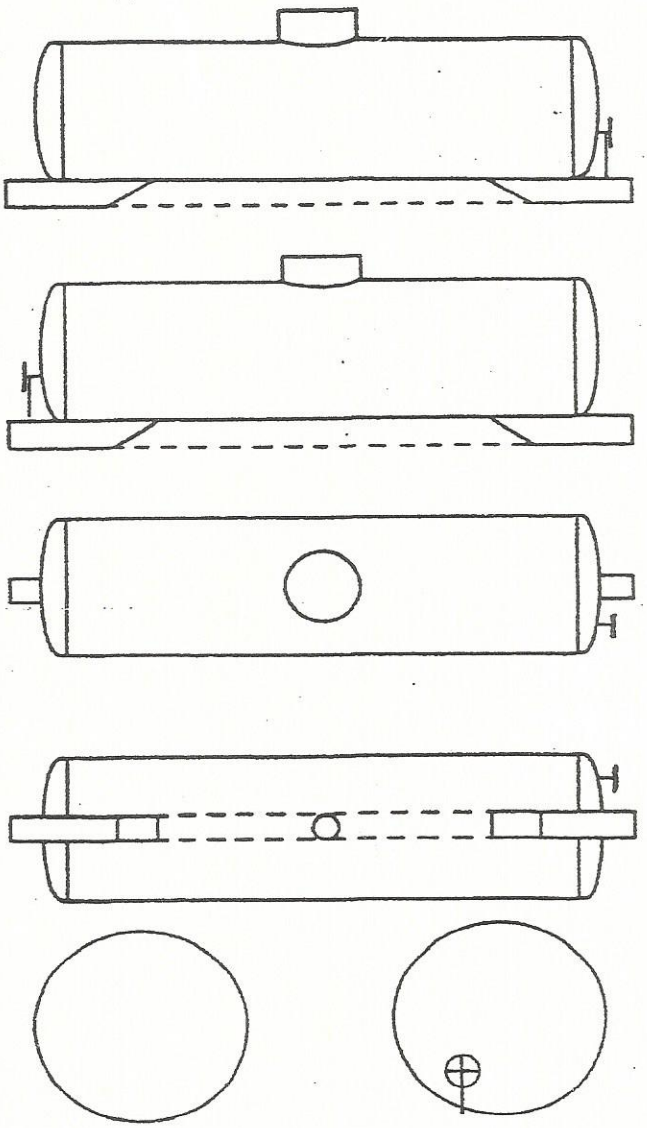
Construction Material: Type/Grade _____ Thickness _____ | Stress: [T] [M] [C] [O] [N]

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
[X] Liquid Valve	[Y] [N] [ ] Leaking	3"
[X] Vapor/ Air Valve	[Y] [N] [ ] Leaking	2"
[X] Bottom Outlet Type: _____	[Y] [N] [ ] Leaking	intact
[ ] Pressure Relief Device Type: _____	[Y] [N] [ ] Leaking	
[ ] Vacuum Relief Valve	[Y] [N] [ ] Leaking	
[ ] Gauging Device Type: _____	[Y] [N] [ ] Leaking	
[ ] Manway Cover Plate	[Y] [N] [ ] Leaking	
[ ] Fill Hole	[Y] [N] [ ] Leaking	
[ ] Sample Line	[Y] [N] [ ] Leaking	
[ ] Thermo-meter Well	[Y] [N] [ ] Leaking	
[ ] Washout	[Y] [N] [ ] Leaking	
[ ] Sump	[Y] [N] [ ] Leaking	
[ ] Other Type: _____	[Y] [N] [ ] Leaking	

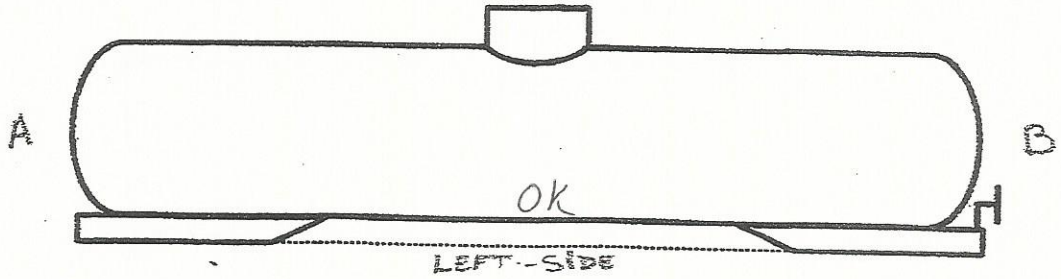
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).

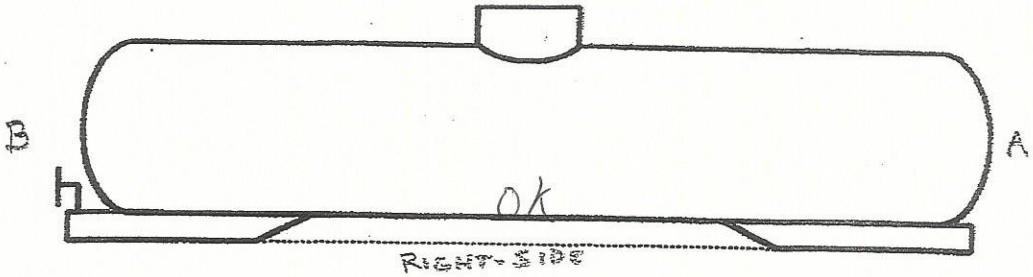


1325 hrs
74.2°F
12 psi

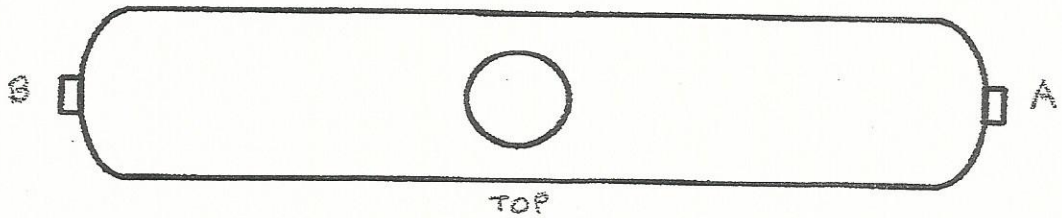
33714



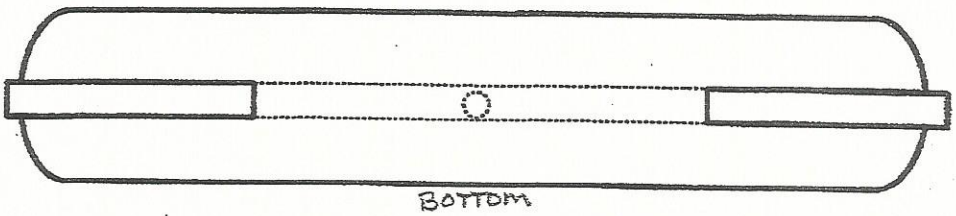
LEFT-SIDE



RIGHT-SIDE



TOP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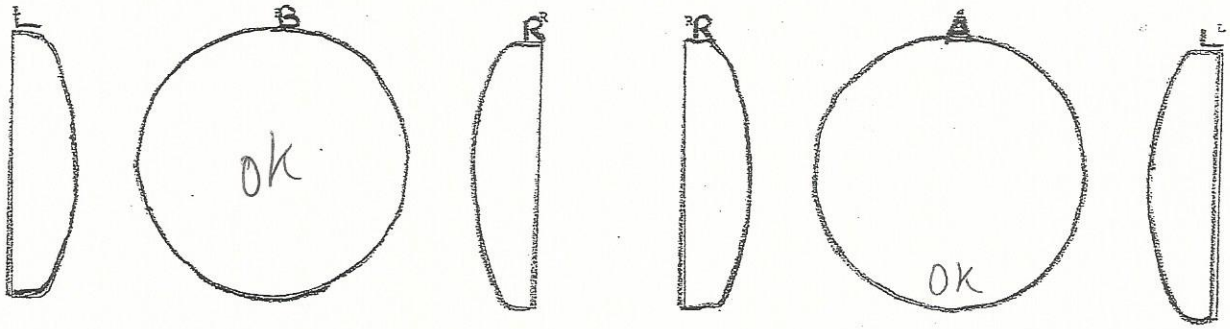


CBTX 743197

Tank Car Damage Assessment

Car Initials & Number: CBTX 743147

Material:

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

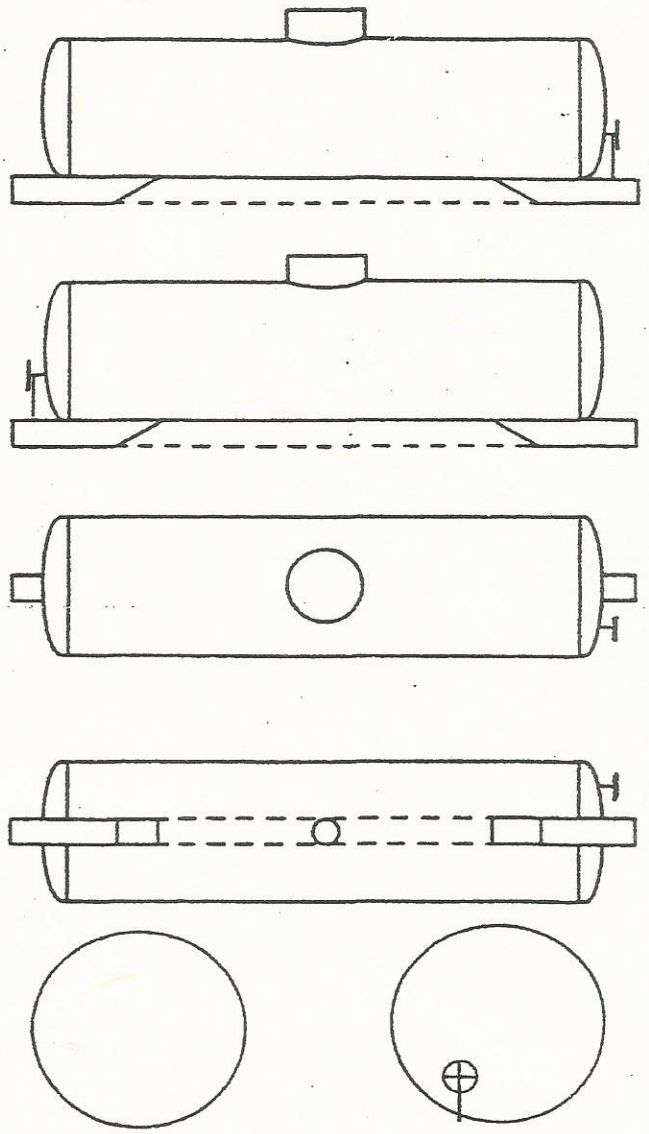
Specification N°: 111S100W1	Tank Test pressure:	Tank Capacity: 31820
Build Date: 03-2013	Underframe: ☐ Continuous ☒ Stub Sill	
Jacketed: [Y] [N]	Thermal Protection: [J] Jacketed [T] Sprayed-on	Insulated: [Y] [N]
Construction Material: Type/Grade _____	Thickness _____	Stress: [T] [M] [C] [O] [N]

Fittings Damage

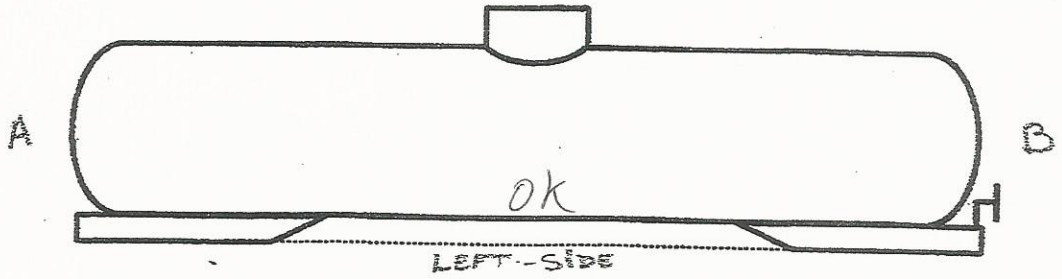
Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	[Y] [N] ☐ Leaking	3"
☒ Vapor/ Air Valve	[Y] [N] ☐ Leaking	2"
☒ Bottom Outlet Type: _____	[Y] [N] ☐ Leaking	intact
☐ Pressure Relief Device Type: _____	[Y] [N] ☐ Leaking	
☐ Vacuum Relief Valve	[Y] [N] ☐ Leaking	
☐ Gauging Device Type: _____	[Y] [N] ☐ Leaking	
☐ Manway Cover Plate	[Y] [N] ☐ Leaking	
☐ Fill Hole	[Y] [N] ☐ Leaking	
☐ Sample Line	[Y] [N] ☐ Leaking	
☐ Thermo-meter Well	[Y] [N] ☐ Leaking	
☐ Washout	[Y] [N] ☐ Leaking	
☐ Sump	[Y] [N] ☐ Leaking	
☐ Other Type: _____	[Y] [N] ☐ Leaking	

Jacket, Tank and Head Damage

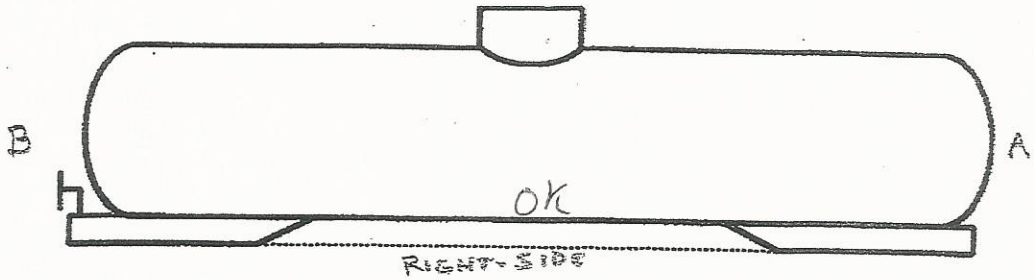
Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).



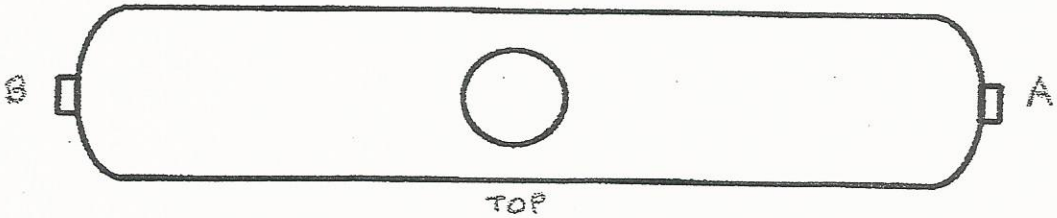
1453 hrs
85.5°F
15 psi



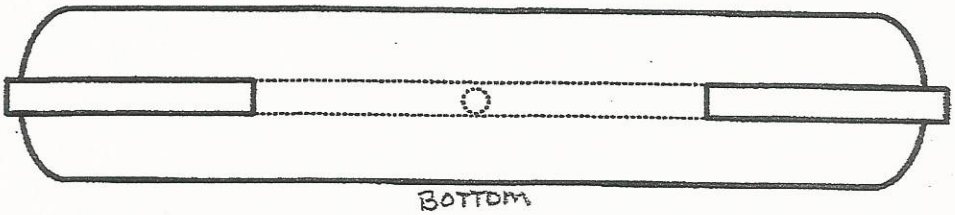
LEFT-SIDE



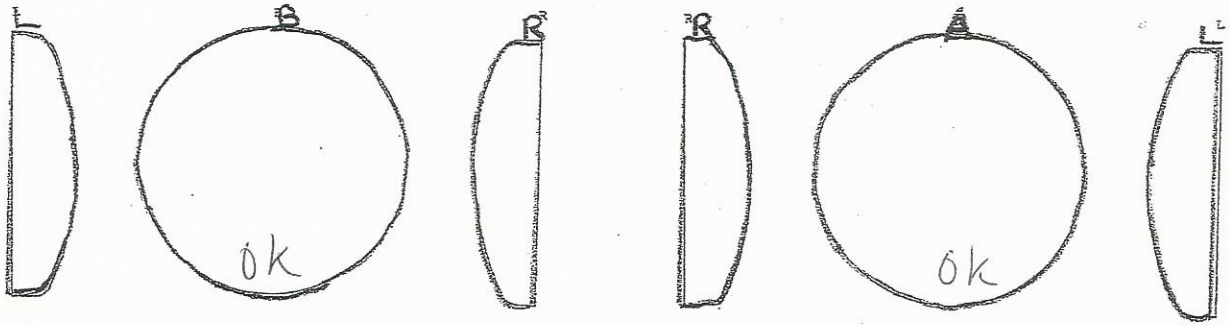
RIGHT-SIDE



TOP



BOTTOM



5/3/14

Tank Car Damage Assessment

Car Initials & Number GATX 286291

Material

Tank Car Characteristics/Features

Type of Car: ☒ Non-pressure ☐ Pressure ☐ Cryogenic ☐ Other _____

Specification N°: ~~not a~~ burnt off car (illegible)

Tank Test pressure:

Tank Capacity: 31760

Build Date: burnt off car

Underframe: ☐ Continuous ☒ Stub Sill

Jacketed: ☐ Y ☐ N

Thermal Protection: ☐ J Jacketed ☐ T Sprayed-on

Insulated: ☐ Y ☐ N

Construction Material: Type/Grade _____ Thickness _____

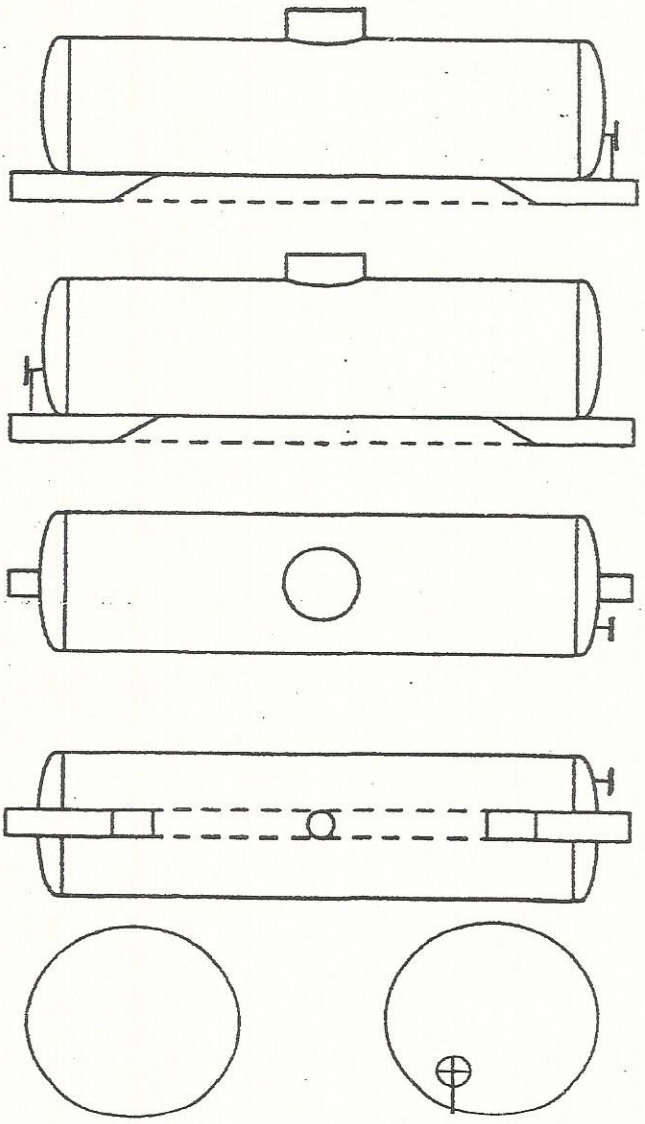
Stress: ☐ T ☐ M ☐ C ☐ O ☐ N

Fittings Damage

Type fitting	Damaged?	Description Damage/Leak
☒ Liquid Valve	☐ Y ☒ N ☐ Leaking	3"
☒ Vapor/ Air Valve	☐ Y ☒ N ☐ Leaking	2"
☐ Bottom Outlet Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Pressure Relief Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Vacuum Relief Valve	☐ Y ☐ N ☐ Leaking	
☐ Gauging Device Type: _____	☐ Y ☐ N ☐ Leaking	
☐ Manway Cover Plate	☐ Y ☐ N ☐ Leaking	
☐ Fill Hole	☐ Y ☐ N ☐ Leaking	
☐ Sample Line	☐ Y ☐ N ☐ Leaking	
☐ Thermo-meter Well	☐ Y ☐ N ☐ Leaking	
☐ Washout	☐ Y ☐ N ☐ Leaking	
☐ Sump	☐ Y ☐ N ☐ Leaking	
☐ Other Type: _____	☐ Y ☐ N ☐ Leaking	

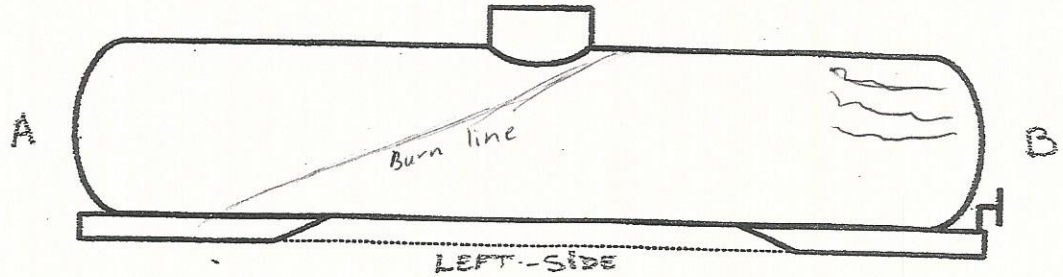
Jacket, Tank and Head Damage

Indicate location and severity of damage (punctures, cracks, scores, gouges, wheel burns, dents, rail burns, underframe, and leaks) on the appropriate diagram(s).



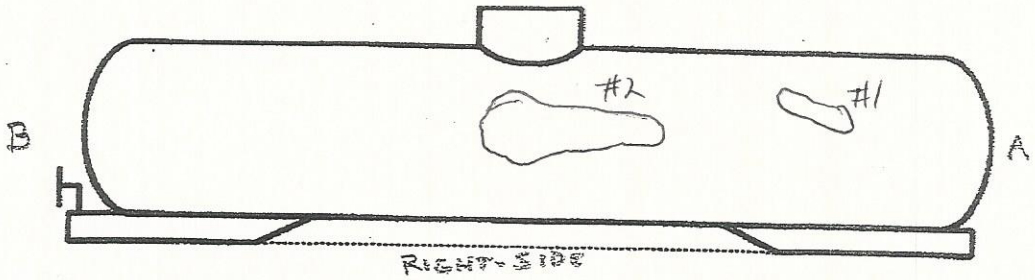
1350 hrs.
8.4.4°F
12 psi

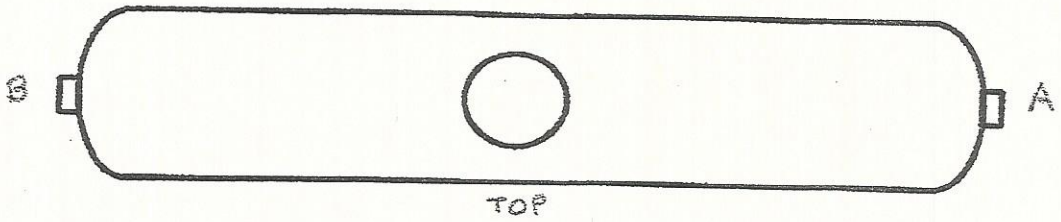
33714

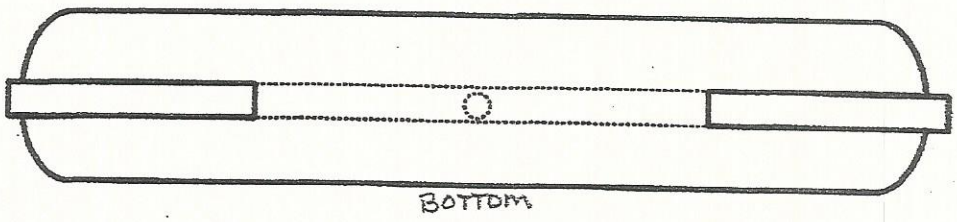


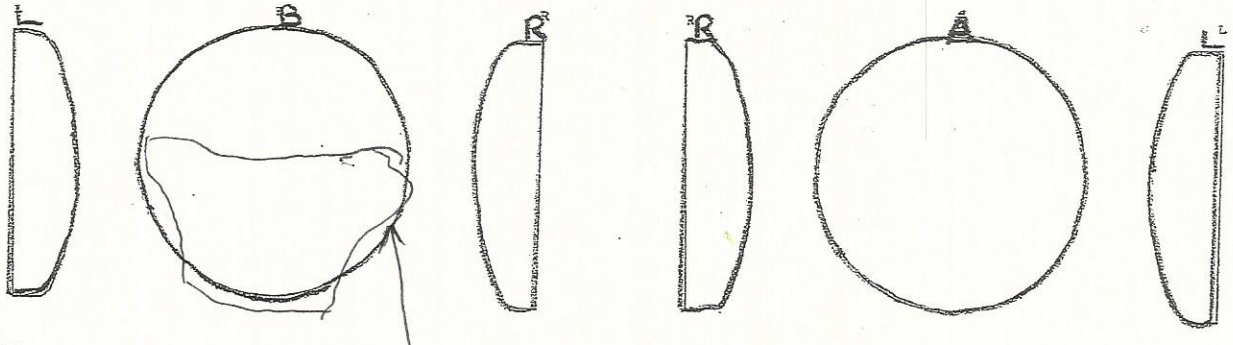
#1: 44" long
6½" wide
⅛" deep

#2: 120" long
43" wide
1½" deep





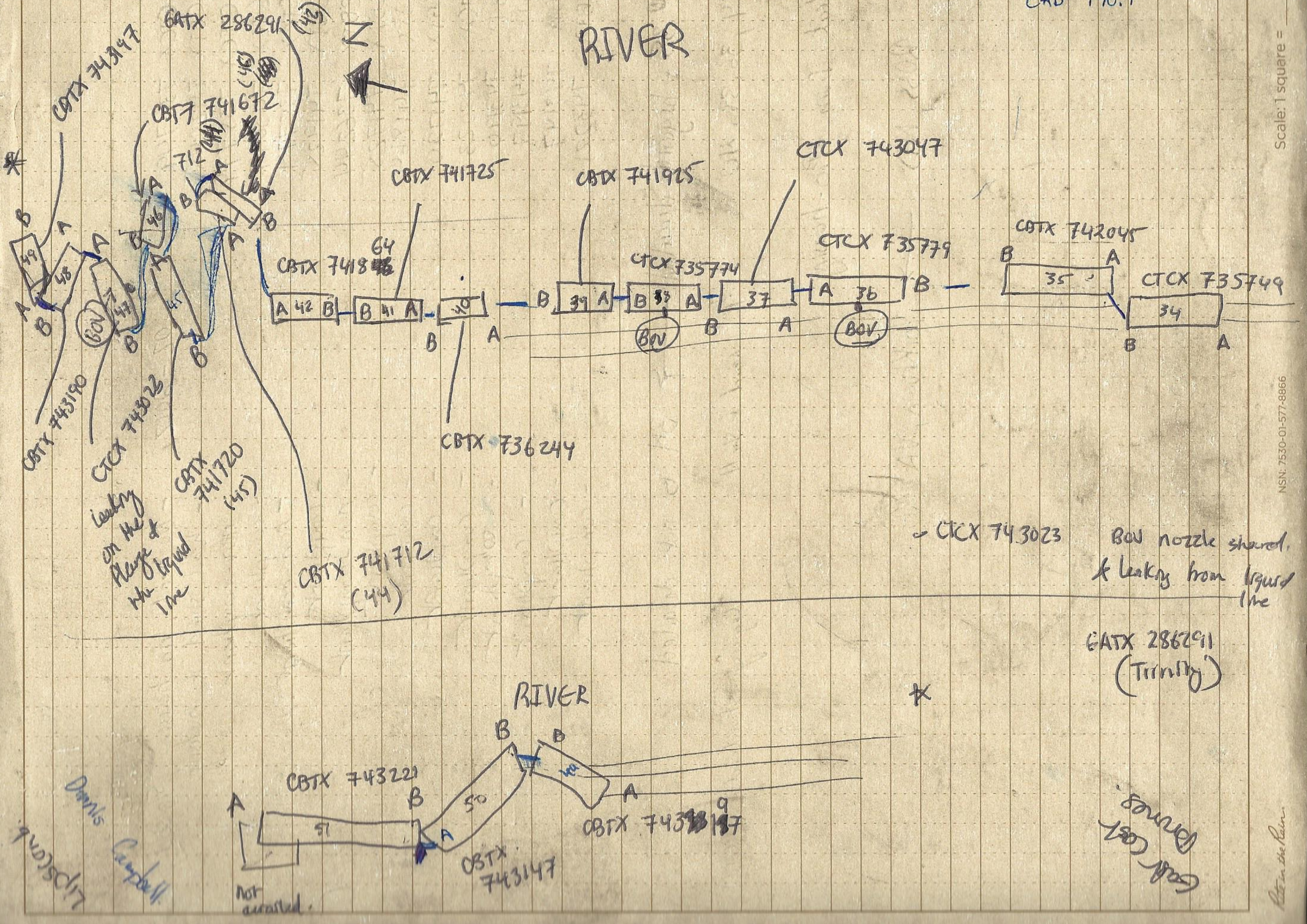




head shield
bent out

GATX 286291

CAB 146.1

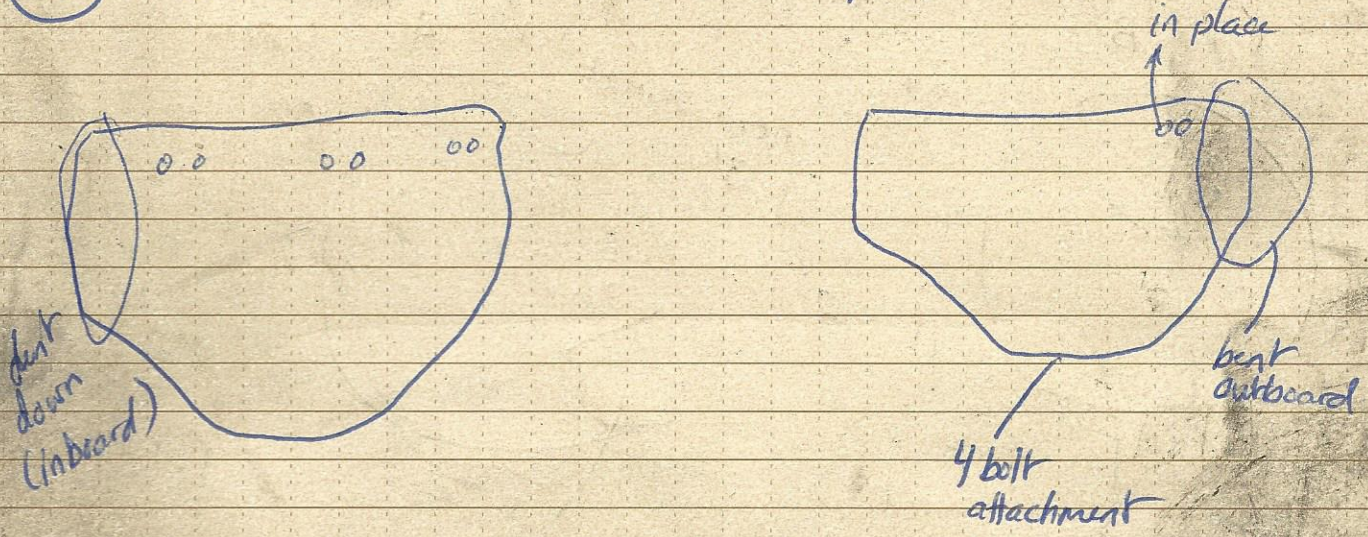

RIVER
N
CBTX 743147
GATX 286291 (42)
CBTX 741672
712
CBTX 741725
CBTX 741925
CTCX 743047
CTCX 735774
CTCX 735779
CBTX 742045
CTCX 735749
CBTX 7418 64
42
41
40
39
37
36
35
34
BOV
CBTX 736244
CBTX 743190
CTCX 743026
CBTX 741720 (45)
leaking on the flange & the liquid line
CBTX 741712 (44)
49
48
47
46
45
A
B
CTCX 743023
BOV nozzle sheared, & leaking from liquid line
GATX 286291 (Trinity)
RIVER
CBTX 743221
51
50
CBTX 743147
CBTX 743197
not derailed.
Dennis Campbell
Lipscomb
Gulf Coast Dennis

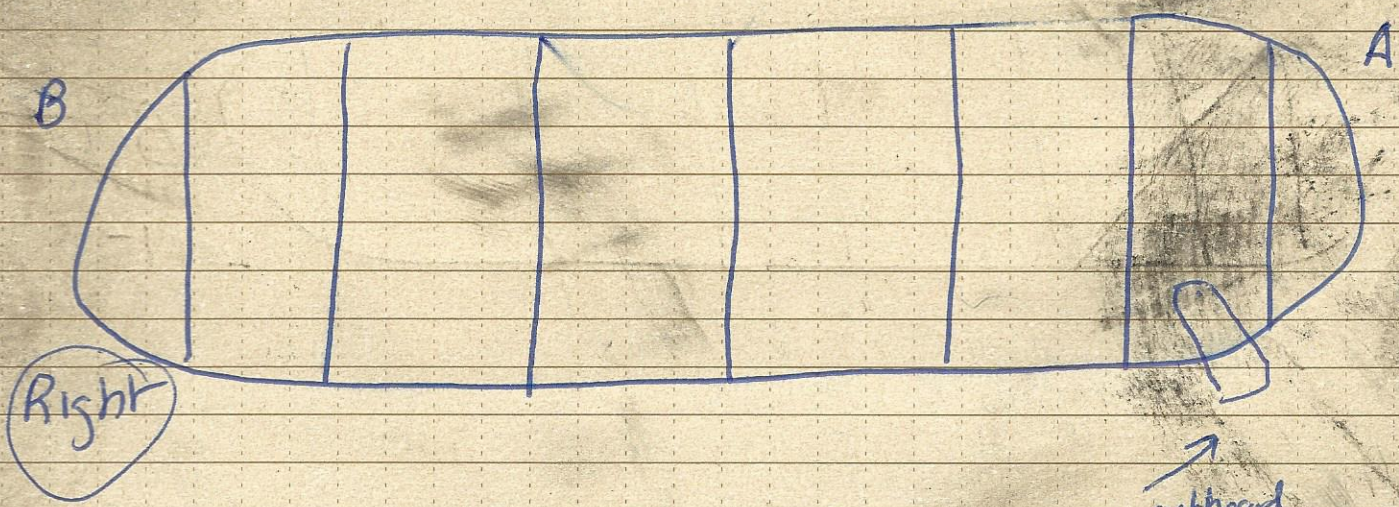
Scale: 1 square =

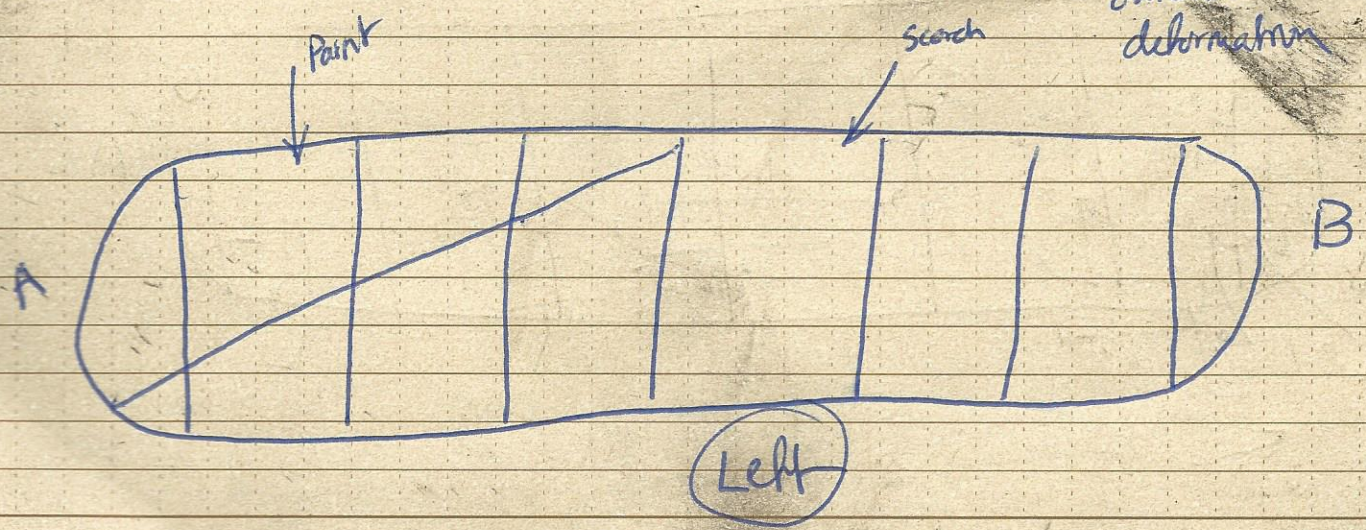
NSN: 7530-01-577-8866

Rite in the Rain

(43) GATX 286291 Capacity 31760







Scale: 1 square = _____