

**Barge Grounds Off Virginia Beach
October 13, 2009**

Step 1. Outline the Problem

What When	Problem(s)	Barge broke free of tug, grounded
	Date	November 12, 2009
	Time	~11:00 p.m. broke free of tug; 6:00 a.m. (11/13/09) grounded
Where	Differences	Wind-driven rain storm, heavy seas; 84 HAZMAT loads onboard
	Physical Location	Sandbridge Beach (Virginia Beach), VA
	Unit/Process/Equipment	La Prinsesa - unmanned, non-self-propelled, ~570-foot, triple deck cargo barge
	Work Being Done	Towed for transport from Puerto Rico to New Jersey

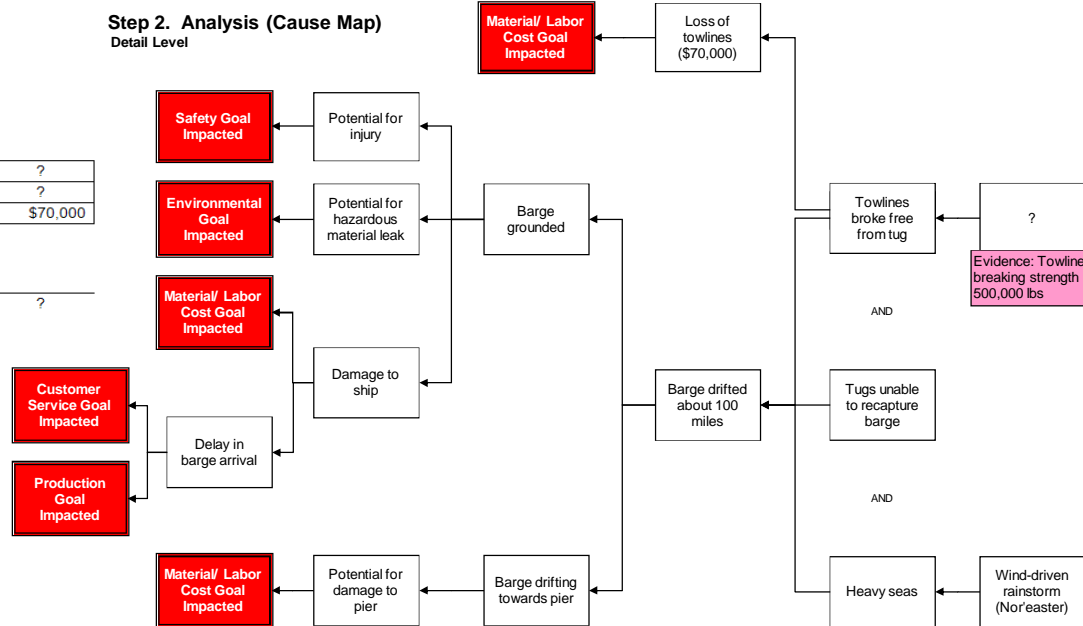
At approximately 11:00 p.m. on October 12th, 2009, the two 500,000 lb strength towlines connecting *La Prinsesa* barge to its tug broke free. The tug was unable to recapture the ship, and it drifted for about seven hours in heavy seas caused by a wind-driven rain storm before grounding at Sandbridge Beach in Virginia, just shy of the Sandbridge pier.

TIMELINE			
Year	Date	Time	Description
2009	6-Nov		Barge departs San Juan, Puerto Rico
	12-Nov	11:00 p.m.	Barge breaks free of tug
	13-Nov	6:00 a.m.	Barge grounds at Sandbridge Beach
		12:00 p.m.	Coast Guard stabilizes barge with ballast

Impact to the Goals

Safety	Potential for injury	
Environmental	Potential for hazardous material leak	
Cust. Service	Delay in barge arrival	?
Production-Schedule	Damage to ship	?
Material, Labor Cost	Loss of towlines	\$70,000
	Potential for damage to pier	
Frequency	This incident	?
	Annual Total	?

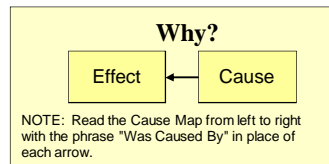
**Step 2. Analysis (Cause Map)
Detail Level**



So far the 84 hazardous material (HAZMAT) loads the barge was carrying appear to be intact. There were no injuries, as the barge was unmanned. Damage to the ship is not known at this time. However, the incident had the potential to cause injuries, a HAZMAT spill that could have led to an evacuation, and far more damage to the ship and the beach. The incident did lead to the loss of the towlines, which are valued at approximately \$70,000 and a delay in the barge's arrival.



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It's unclear what caused the towlines to break free. Initial solutions are to clear the area and ballast the tug to attempt to keep it from drifting. Hopefully the barge will soon be towed to safety where the cargo can be off-loaded. However, long-term solutions that would prevent another incident of this type will only be determined after the causes of the issue are determined.