National Transportation Safety Board
Aviation Accident Data Summary

Location:	Pontiac, MI	**Accident Number:**	CHI04LA039
Date & Time:	12/03/2003, 1033 EST	**Registration:**	N65455
Aircraft:	Cessna 152	**Injuries:**	1 Serious, 1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

The airplane impacted trees and terrain during a forced landing following a loss of engine power while on final approach. The certified flight instructor (CFI) reported that the airplane did not have enough altitude at the time of the loss of engine power to land on the runway and he performed a forced landing to a small field. No pre-impact anomalies were found with the airplane's fuel system, including the fuel tanks, lines, and selector valve during a post-accident examination. The gascolator and carburetor were void of fuel when examined at the accident site. No fuel was recovered from the ruptured left fuel tank or the apparently undamaged right fuel tank. There was no noticeable fuel smell or evidence of a fuel spill at the accident site. The vegetation around the main wreckage was not blighted when examined a day after the accident. No anomalies were found with the engine that would have prevented its operation. The CFI reported that prior to the flight he and his student both visually ascertained the airplane's fuel quantity. He reported that both fuel tanks were half full (13 total gallons), which correlated with the indications displayed on the cockpit fuel quantity gauges. The CFI provided documentation that substantiated the fuel quantity aboard the airplane prior to its last departure. The CFI stated that after the accident his dual-student was partially trapped under the left side of the airplane and "a steady stream of fuel was pouring on his left side." Emergency room documentation confirmed that the dual-student had suffered chemical burns on his left shoulder, chest and back. In the event the airplane departed with 13 gallons of fuel, there should have been sufficient fuel for the approximately 1/2 hour accident flight. The airport temperature and dew point would produce the likelihood of light carburetor icing accumulation during cruise and/or descent engine power settings.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The loss of engine power for undetermined reasons. A factor to the accident was the tree line and the unsuitable terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
2. (F) OBJECT - TREE(S)

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
3. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED - PILOT IN COMMAND

Flight Instructor Information

Certificate:	Flight Instructor; Commercial	**Age:**	23
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Instrument Rating(s):**	Airplane
Other Aircraft Rating(s):	None	**Instructor Rating(s):**	Airplane Single-engine
Flight Time:	325 hours (Total, all aircraft), 22 hours (Total, this make and model), 246 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft), 18 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Student Pilot Information

Certificate:	Student	**Age:**	28
Airplane Rating(s):	None	**Instrument Rating(s):**	None
Other Aircraft Rating(s):	None	**Instructor Rating(s):**	None
Flight Time:	13 hours (Total, all aircraft), 13 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N65455
Model/Series:	152	**Engines:**	1 Reciprocating
Operator:	On file	**Engine Manufacturer:**	Lycoming
Operating Certificate(s) Held:	None	**Engine Model/Series:**	O-235-L2C
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	PTK, 980 ft msl	**Weather Information Source:**	Weather Observation Facility
Lowest Ceiling:	Broken / 25000 ft agl	**Wind Speed/Gusts, Direction:**	5 knots / , 200°
Temperature:	-1°C	**Visibility**	10 Miles
Precipitation and Obscuration:			
Departure Point:	New Haven, MI (57D)	**Destination:**	Pontiac, MI (PTK)

Airport Information

Airport:	Oakland County International (PTK)	**Runway Surface Type:**	Asphalt
Runway Used:	27L	**Runway Surface Condition:**	Dry
Runway Length/Width:	6200 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Latitude, Longitude:	42.665278, -83.418611		

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox	**Adopted Date:**	07/29/2004
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		