# Aviation Investigation Final Report

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| **Location:** | Rosenberg, Texas | **Accident Number:** | CEN23LA345 |
| **Date & Time:** | August 2, 2023, 15:59 Local | **Registration:** | N38483 |
| **Aircraft:** | Piper PA-28-181 | **Aircraft Damage:** | Substantial |
| **Defining Event:** | Fuel exhaustion | **Injuries:** | 1 None |
| **Flight Conducted Under:** | Part 91: General aviation - Instructional | | |

## Analysis

The student pilot stated that in preparation for his solo cross-country flight, he reviewed his flight planning with his flight instructor. He said he flew to the destination airport, where he performed one approach and landing, followed by flight maneuvers north of the airport, and then landed. The pilot shut the airplane down to use the restroom. Prior to departure from the destination airport, he did not visually check the airplane fuel level through the fuel filler ports. During the return flight, he visually observed the fuel quantity, and it was “dropping rapidly,” and he decided to land at an alternate airport. During the approach to the alternate airport, the engine “sputtered” and quit. He landed the airplane with a tailwind and “slammed on the brakes” to try to slow the airplane down as soon as possible. The airplane overran the runway and impacted a fence and construction equipment that resulted in substantial damage to both wings. Postaccident examination of the airplane revealed no useable fuel in the airplane fuel tanks.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The student pilot’s improper fuel management that resulted in fuel exhaustion, a total loss of engine power, and a subsequent forced landing and landing overrun at an alternate airport.

## Findings

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| **Aircraft** | Fuel - Fluid management |
| **Aircraft** | Fuel - Fluid level |
| **Personnel issues** | Decision making/judgment - Pilot |

# Factual Information

## History of Flight

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| **Enroute** | Fuel exhaustion (Defining event) |
| **Enroute** | Loss of engine power (total) |
| **Landing-landing roll** | Runway excursion |
| **Landing-landing roll** | Collision with terr/obj (non-CFIT) |

## Pilot Information

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| **Certificate:** | Commercial; Student | **Age:** | 34,Male |
| **Airplane Rating(s):** | None | **Seat Occupied:** | Left |
| **Other Aircraft Rating(s):** | Helicopter | **Restraint Used:** | Unknown |
| **Instrument Rating(s):** | Helicopter | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | |
| **Medical Certification:** | Unknown | **Last FAA Medical Exam:** | |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 55.7 hours (Total, all aircraft), 10.8 hours (Total, this make and model) | | |

## Aircraft and Owner/Operator Information

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|---|---|---|---|
| **Aircraft Make:** | Piper | **Registration:** | N38483 |
| **Model/Series:** | PA-28-181 | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | 1977 | **Amateur Built:** | |
| **Airworthiness Certificate:** | Utility | **Serial Number:** | 28-7790556 |
| **Landing Gear Type:** | Tricycle | **Seats:** | 4 |
| **Date/Type of Last Inspection:** | July 14, 2023 100 hour | **Certified Max Gross Wt.:** | 2550 lbs |
| **Time Since Last Inspection:** | 12546.5 Hrs | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | as of last inspection | **Engine Manufacturer:** | Lycoming |
| **ELT:** | Installed, not activated | **Engine Model/Series:** | O-360-A4M |
| **Registered Owner:** | KDRD HOLDINGS LLC | **Rated Power:** | |
| **Operator:** | On file | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | SGR,81 ft msl | **Distance from Accident Site:** | 9 Nautical Miles |
| **Observation Time:** | 19:53 Local | **Direction from Accident Site:** | 45° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 9 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 150° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29.98 inches Hg | **Temperature/Dew Point:** | 38°C / 21°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | San Antonio, TX (5C1) | **Type of Flight Plan Filed:** | VFR |
| **Destination:** | Houston, TX (LVJ) | **Type of Clearance:** | None |
| **Departure Time:** | 14:34 Local | **Type of Airspace:** | Class E |

## Airport Information

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| **Airport:** | Lane Airpark T54 | **Runway Surface Type:** | Asphalt |
| **Airport Elevation:** | 96 ft msl | **Runway Surface Condition:** | Dry |
| **Runway Used:** | 13 | **IFR Approach:** | None |
| **Runway Length/Width:** | 3020 ft / 35 ft | **VFR Approach/Landing:** | Forced landing |

## Wreckage and Impact Information

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| **Crew Injuries:** | N/A | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | N/A | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | N/A | **Latitude, Longitude:** | 29.523331,-95.779758(est) |

## Administrative Information

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| **Investigator In Charge (IIC):** | Gallo, Mitchell |
| **Additional Participating Persons:** | Rick Bolton; Federal Aviation Administration; Houston, TX |
| **Original Publish Date:** | November 30, 2023 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class 4 |
| **Note:** | The NTSB did not travel to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=192784 |