



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Highway Safety  
490 L'Enfant Plaza East, SW, Washington, DC 20594-2000

November 18, 2021

# **MOTOR CARRIER FACTORS**

RRD22LR002

## **A. ACCIDENT**

Location: Houston, Texas

Date: October 29, 2021

Time: 0405 (CST)  
1005 (UTC)

Vehicle: 2021 Freightliner truck tractor, Oklahoma 3EQ703

## **B. MOTOR CARRIER FACTORS GROUP**

Group Chairman                      Shawn Currie  
National Transportation Safety Board, Office of Highway Safety  
490 L'Enfant Plaza, SW Washington, DC 20594-2000

## **C. SUMMARY**

This investigative report addresses the motor carrier history and operations of the commercial motor vehicle (CMV) involved in this crash, a 2021 Freightliner truck-tractor in combination with a 2015 Mack Trailer Mfg. Co Inc, semitrailer presented as a U. S. Department of Transportation (DOT) specification 406 cargo tank (truck), placarded for Class 3, Flammable (Gasoline) UN1203, owned and operated by Gemini Transport LP of Oklahoma City, Oklahoma and a train. This report also details the employment history of the commercial motor vehicle (CMV) driver, motor carrier management safety practices and Federal and state oversight and regulatory requirements.

## **D. Motor Carrier History and Operations**

The motor carrier involved in this collision was Gemini Transport LP (Gemini). Gemini is a wholly owned subsidiary of Love's Travel Stops and Country Stores (Love's) of Oklahoma City, Oklahoma. The Oklahoma Secretary of State's Office records show that Gemini was incorporated in August of 2000. According to the Federal Motor Carrier Safety Administration's (FMCSA) Motor Carrier Management Information System (MCMIS), the carrier was issued USDOT number 913300 on November 6, 2000. Gemini was registered as an interstate "for-hire" carrier of general freight, liquids, gases and chemicals. The carrier had operating authority and had been assigned Motor Carrier (MC) number 395777. Per the carrier's latest MCS-150, the carrier owned 984 truck tractors, 862 semitrailers and employed 1,450 drivers.<sup>1</sup>

### **1.0 Carrier History**

According to FMCSA's data, the carrier obtained its operating authority on November 6, 2000, the same it was issued the USDOT number. Gemini was not subject to an FMCSA New Entrant Audit as it had obtained authority prior to the implementation date of the New Entrant Audit program, which initiated on May 13, 2002. Gemini is a hauler of bulk fuel, primarily supplying the Love's stops at 500+ locations in 41 states.<sup>2</sup>

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<sup>1</sup> The MCS-150 is described further at the following website: [FMCSA Form MCS-150 \(dot.gov\)](https://www.fmcsa.dot.gov/mcs-150)

<sup>2</sup> Retrieved from [About Love's Travel Stops & Country Stores \(loves.com\)](https://www.loves.com)

## 1.1 Hiring Process

Gemini has employed a full-time recruiter to assist in filling vacant driver positions. Open driver positions were advertised on the carrier's website but were commonly filled through employee referrals. A bonus was available to current employees who recruited a new driver. Gemini preferred to hire drivers with previous CDL experience and rarely hired drivers who had recently graduated from Commercial Driving schools. Those applicants who were deemed qualified from their applications were then interviewed by one of the 23 regional managers. If the regional manager deemed the applicant acceptable, then a background check was started. If the applicant passed the background check, they were given a written offer of employment. If the applicant accepted the offer of employment, then a pre-employment-controlled substance test was administered, if that test had negative results, the driver began new employee training. The new employee was on a 90-day probationary period. Training would last a minimum of two weeks and maximum of 10 weeks. Training time varied due to the time it took new drivers to obtain certifications (cards) proving they were able to safely load products at different 3<sup>rd</sup> party terminals.<sup>3</sup> The training took place on-line and in-person with an assigned driver trainer. Driver trainers were described as experienced drivers proficient on policy and procedures and had the "right" personality. The driver trainer would be with the trainee until all the cards required were obtained and the trainee passed an evaluated road test.

## 1.2 Management Safety Practices

Gemini had numerous policies and procedures in place to include a Driver Code of Conduct, Drug and Alcohol policy, Hazardous Materials Training, and a Driver Bonus program. The driver code of conduct was a document outlining driver expectations, safety points and procedures in a bulleted format. Under the heading of safety, there was a bullet stating, "Drivers must always come to a complete stop at stop signs and railroad crossings and should not shift over tracks".<sup>4</sup> This crash occurred at a railroad grade crossing and will be discussed further in section 3.2 of this report.

The driver safety bonus program was described as awarded both quarterly and annually. To be eligible for a quarterly safety bonus of \$600, the driver could not have:

- Chargeable safety incident<sup>5</sup> report upon review of the Incident Review Committee
- Failed a surveillance or action ride<sup>6</sup>
- Negative weekly CADEC report<sup>7</sup>
- Any disciplinary actions or failed DOT inspections (driver responsible items)

The annual safety bonus eligibility was listed as:

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<sup>3</sup> Third-party terminals are where Love's acquires bulk petroleum for their stores.

<sup>4</sup> Motor Carrier Attachment – Driver Code of Conduct.

<sup>5</sup> A chargeable safety incident would be deemed preventable and would result in a punitive action. Loss of bonus, written reprimand, terminations, etc.

<sup>6</sup> Reports would indicate speed, condition of equipment, adherence to the Code of Conduct and the observation of safety and traffic codes.

<sup>7</sup> CADEC refers to automated driver's logs.

- Qualify for all four quarterly and annual performance bonuses
- No failed DOT inspections
- Satisfactory CADEC reports at the year end
- Not failed a surveillance or action ride
- Not received any form of written disciplinary action

The final safety bonus program was titled “Gemini Loves Rewarding Safe Drivers”. This program was longevity based and utilized a five- and 10-year cycle. If a driver was eligible for the annual safety bonus for 5 years in a row, they received a bonus equal to four times the driver’s average monthly salary. And 10-year of continuous annual safety awards was equal to a bonus of six times the average monthly salary during the previous 12 months.<sup>8</sup>

The carrier had received numerous safety awards from the National Tank Truck Carriers to include the associations Grand Award for overall safety from 2014 to 2020 in the 40–90-million-mile category. This award is based on a carrier’s safety rating and accident frequency in their mileage class.<sup>9</sup>

### 1.3 Hours of Service (HOS)

As of December 18, 2017, Title 49 *Code of Federal Regulations (CFR)* Part 395 required motor carriers to install and maintain an Electronic Logging Device (ELD) to track the driver’s hours of service.<sup>10</sup> An ELD is a device or technology that automatically records a driver's driving time and facilitates the accurate recording of the driver's hours of service. There are certain parameters that would allow carriers to be exempt from the ELD requirements. These parameters include operating a commercial vehicle in a manner requiring completion of a record of duty status on not more than 8 days within any 30-day period; in a driveaway-towaway operation in which the vehicle being driven is part of the shipment being delivered; in a driveaway-towaway operation in which the vehicle being transported is a motor home or a recreation vehicle trailer; or in a commercial vehicle manufactured before model year 2000. Since the operations of the truck owned by Gemini met these conditions, an ELD was required.

Gemini utilized an ELD to account for the crash-involved driver’s hours of service. The device used was manufactured by Geotab.<sup>11</sup> The device was self-certified that it met the regulatory requirements set forth by FMCSA, by Geotab and was on the list of ELDs and ELD providers that are approved and maintained by FMCSA.

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<sup>8</sup> Motor Carrier Attachment – Driver Bonus Program.

<sup>9</sup> Retrieved from [Gemini wins safety award from National Tank Truck Carriers \(loves.com\)](https://www.loves.com)

<sup>10</sup> Retrieved from <https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=1&ty=HTML&h=L&mc=true&=PART&n=pt49.5.395>

<sup>11</sup> Retrieved from [ELD Compliance Solution | ELD Mandate | Geotab](#)

## 2.0 Federal Oversight – Federal Motor Carrier Safety Administration

The primary mission of the FMCSA is to reduce crashes, injuries and fatalities involving large trucks and buses.

The FMCSA was established as a separate administration within the U.S. Department of Transportation (USDOT) on January 1, 2000, pursuant to the Motor Carrier Safety Improvement Act of 1999. FMCSA is headquartered in Washington, DC and employs more than 1,000 people in all 50 States and the District of Columbia, all dedicated to improving the safety of commercial motor vehicles.<sup>12</sup>

### 2.1 CSA and SMS

In 2010, the FMCSA introduced the Compliance, Safety, Accountability (CSA) system as an initiative to improve large truck and bus safety and ultimately reduce crashes, injuries, and fatalities that are related to CMVs. It introduced an enforcement and compliance model that allows the FMCSA and its state partners to contact a larger number of carriers earlier to attempt to address safety problems before crashes occur. Along with CSA, the FMCSA also rolled out an operational model called the Safety Measurement System (SMS). SMS uses a motor carrier's data from roadside inspections, (including all safety-based violations), state-reported crashes, and the Federal Motor Carrier Census to quantify performance in the following Behavior Analysis and Safety Improvement Categories (BASICS).

#### 2.1.1 CSA BASICS<sup>13</sup>

- **Unsafe Driving** — Operation of CMVs by drivers in a dangerous or careless manner. *Example violations:* Speeding, reckless driving, improper lane change, and inattention. (FMCSR Parts 392 and 397)
- **Hours-of-Service (HOS) Compliance** — Operation of CMVs by drivers who are ill, fatigued, or in non-compliance with the HOS regulations. This BASIC includes violations of regulations pertaining to records of duty status (RODS) as they relate to HOS requirements and the management of CMV driver fatigue *Example violations:* false HOS RODS and operating a CMV while ill or fatigued. (FMCSR Parts 392 and 395)
- **Driver Fitness** — Operation of CMVs by drivers who are unfit to operate a CMV due to lack of training, experience, or medical qualifications. *Example violations:* Failure to have a valid and appropriate commercial driver's license (CDL) and being medically unqualified to operate a CMV. (FMCSR Parts 383 and 391)

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<sup>12</sup> Retrieved from <https://www.fmcsa.dot.gov/mission>

<sup>13</sup> CSA Methodology retrieved from [www.fmcsa.dot.gov](http://www.fmcsa.dot.gov)

- **Controlled Substances and Alcohol** — Operation of CMVs by drivers who are impaired due to alcohol, illegal drugs, and misuse of prescription or over-the-counter medications. *Example violations:* Use or possession of controlled substances/alcohol. (FMCSR Parts 382 and 392)
- **Vehicle Maintenance** — Failure to properly maintain a CMV and/or properly prevent shifting loads. *Example violations:* Brakes, lights, and other mechanical defects, failure to make required repairs, and improper load securement. (FMCSR Parts 392, 393, and 396)
- **Hazardous Materials (HM) Compliance** — Unsafe handling of HM on a CMV. *Example violations:* Release of HM from package, no shipping papers (carrier), and no placards/markings when required. (FMCSR Part 397 and Hazardous Materials Regulations Parts 171, 172, 173, 177, 178, 179, and 180)
- **Crash Indicator** — Histories or patterns of high crash involvement, including frequency and severity based on information from state-reported crashes

A carrier’s measurement for each BASIC depends on the following:

- The number of adverse safety events (violations related to that BASIC or crashes).
- The severity of violations or crashes.
- When the adverse safety events occurred (more recent events are weighted more heavily).

After a measurement is determined, the carrier is then placed in a peer group (i.e., other carriers with similar size and number of inspections). Percentiles from 0 to 100 are then determined by comparing the BASIC measurements of the carrier to the measurements of other carriers in the peer group. A percentile of “100” indicates the worst performance.


The FMCSA established threshold levels that would require agency action. Unsafe Driving, HOS, and Crash BASICs were set at lower thresholds because of their inherent risk. Additionally, passenger and hazmat carriers have lower thresholds than all other carriers because of their inherent risk. **Table 1** represents the thresholds set by the FMCSA that help prioritize agency intervention and resource management.<sup>14</sup> Gemini was classified as a hazardous materials carrier under this criterion.

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<sup>14</sup> Retrieved from [www.fmcsa.dot.gov](http://www.fmcsa.dot.gov).

**Table 1. BASIC Thresholds.**<sup>15</sup>

<b>BASIC</b>	<b>Passenger Carrier</b>	<b>HM Carrier</b>	<b>All Other Motor Carriers</b>
Unsafe Driving, HOS, Crash	50%	60%	65%
Driver Fitness, Drug & Alcohol, Maintenance	65%	75%	80%
Hazardous Materials	80%	80%	80%

On a carrier’s SMS profile, which is publicly available on the SAFER website for only passenger and hazardous materials carriers, an alert symbol  is displayed in any designated BASIC where the carrier has exceeded the corresponding threshold.<sup>16</sup> This is also referred to as having an “alert” in a BASIC. At the time of the crash Gemini displayed no alerts in any of the BASICS.

The carrier had not been subject to the FMCSA New Entrant Program with a New Entrant safety audit as it was in service prior to the implementation. Since obtaining its USDOT number, the carrier has had 7 compliance reviews (CRs) prior to the crash and a postcrash review.

## **2.2 Intervention Selection Rules<sup>17</sup>**

The following sections outlines FMCSA’s requirements for what constitutes a reason for an intervention. An intervention may include a Warning Letter, an Off -site or On-site Compliance Review.

### **2.2.1 Vehicle Maintenance BASIC Requiring Investigation**

All carriers whose vehicle maintenance BASIC requires investigation must be investigated onsite.

### **2.2.2 Carriers with fewer than 2 BASICS Requiring Investigation**

Offsite Investigations are the recommended intervention type for carriers with two or fewer BASICS requiring investigation unless the carrier otherwise requires an Onsite Investigation.

### **2.2.3 Carriers with more than 2 BASICS Requiring Investigation**

An Offsite or Onsite Focused Investigation maybe conducted on non-HM carriers with up to five BASICS or HM carriers with up to six BASICS (excluding the Vehicle Maintenance BASIC), requiring investigations unless an Onsite Comprehensive Investigation is otherwise required.

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<sup>15</sup> Retrieved from <http://csa.fmcsa.dot.gov/FAQs.aspx>.

<sup>16</sup> FMCSA BASIC information publicly available for passenger and Hazardous Material carriers only. See additional information at the FMCSA Safer website: <http://safer.fmcsa.dot.gov/CompanySnapshot.aspx>.

<sup>17</sup> Excerpts from FMCSA Memorandum (MC-ECS-2019-001) regarding Compliance Safety Accountability Program National Rollout dated January 31, 2019.

Onsite Comprehensive Investigations are required when all the applicable BASICS are to be investigated. An Onsite Comprehensive Investigation is required if all six BASICS are investigated for a non-HM carrier or if all seven BASICS are investigated for an HM carrier.

When deciding whether to conduct an offsite investigation on eligible carriers, Division Offices should consider factors including, (1) prior interventions, (2) safety performance using trending tools, (3) number of BASICS at or above the threshold level, and (4) nature and severity of roadside violations.

A focused CR normally does not result in a safety rating and usually is classified as “non-rated” when completed, however it may result in an adverse safety rating (conditional or unsatisfactory).<sup>18</sup> A comprehensive CR may also be used if the carrier was involved in a crash or there has been a complaint made. A comprehensive CR addresses all aspects of the carrier’s operation and normally results in a safety rating. The safety rating is determined by the FMCSA using safety rating methodology outlined in 49 CFR 385.5 which evaluates patterns of critical and acute violations.<sup>19</sup> **Table 2** summarizes Gemini’s Compliance Review history, agency conducting the CR, date of the review, and findings.

**Table 2.** Gemini Compliance History.

Date	Agency	Type of Review	Final Rating
July 25, 2003	FMCSA	Compliance Review	Satisfactory
February 5, 2015	FMCSA	Compliance Review	Non-Rated
August 20, 2019	California Highway Patrol	Compliance* Review	Non-Rated

<sup>18</sup> Safety rating or rating means a rating of “satisfactory”, “conditional”, or “unsatisfactory” using the factors prescribed in 49 CFR 385.7 as computed under the Safety Fitness Methodology. **Safety Ratings:** (1) **Satisfactory** means a motor carrier has in place, functioning safety management controls to meet the safety fitness standards prescribed in 49 CFR 385.5. (2) **Conditional** means a motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standards that could result in occurrences listed in §385.5 (a) through (k). (3) **Unsatisfactory** means a motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standard which has resulted in occurrences listed in §385.5 (a) through (k). (4) **Unrated** means that a safety rating has not been assigned to the motor carrier by FMCSA.

<sup>19</sup> Acute violations are those identified where non-compliance is so severe as to require immediate corrective action by the motor carrier regardless of the overall safety posture of the carrier. Critical violations relate to management and/or operational controls that show a pattern of non-compliance. A list of acute and critical violations is listed in Appendix B of 49 CFR 385.



July 17, 2020	California Highway Patrol	Compliance* Review	Non-Rated
January 8, 2021	California Highway Patrol	Compliance* Review	Non-Rated
June 1, 2021	California Highway Patrol	Compliance* Review	Non- Rated
September 22, 2021	California Highway Patrol	Compliance* Review	Non-Rated

\*All compliance reviews conducted by California Highway Patrol were a result of the California Basic Inspection of Terminals (BIT) program.<sup>20</sup> These reviews are focused on the terminal's compliance with certain California laws and are not as inclusive a comprehensive FMCSA compliance review

The February 5, 2015, CR completed by FMCSA was based upon a complaint alleging the operator of one of Gemini's tank trucks failed to stop at a railroad crossing while talking on a handheld cellular phone. The investigation by FMCSA determined by using GPS records that the driver and vehicle in the complaint had not crossed any railroad grade crossing that day and the complaint was unfounded.

As a result of this crash, FMCSA did not initiate a CR and did not conduct any enforcement actions.

#### 2.2.4 Federal Regulations for Railroad Grade Crossings

49 *CFR* 392.10 covers the requirements for placarded commercial vehicles transporting hazardous materials stopping at railroad grade crossings. This section also provides five exceptions to the regulations requiring these vehicles to stop. 49 *CFR* 392.10(b)(1) reads: A stop need not be made at: (1) A streetcar crossing, or railroad tracks used exclusively for industrial switching purposes, within a business district as defined in § 390.5 of this chapter which states a business district means the territory contiguous to and including the highway when within 600 feet along such highway there are buildings in use for business or industrial purposes, including but not limited to banks, or office buildings which occupy at least 300 feet of frontage on one side or 300 feet collectively on both sides of the highway.

<sup>20</sup> Retrieved from [Welcome to BIT, The Basic Inspection of Terminals \(BIT\) Program, CHP 800H \(ca.gov\)](https://www.chp.ca.gov/About-CHP/Programs/Basic-Inspection-of-Terminals-BIT-Program)

## **2.3 Texas Department of Public Safety Commercial Vehicle Enforcement Oversight**

The Texas Department of Public Safety (TXDPS) Commercial Vehicle Enforcement has the authority under the Texas Administrative Code Title 37, Part 1, Chapter 4 to enforce the FMCSRs as adopted.

TXDPS rules require all intra-state carriers to comply with all state and local laws and rules governing licensing, vehicle safety and driver safety. Regulated carriers must also comply with the parts of Title 49 Code of Federal Regulations adopted by Texas.

TXDPS is authorized to administer and enforce laws and rules relating to intra-state carriers. TXDPS may delegate authority to staff to inspect equipment, drivers, records, files accounts, book and documents. TXDPS may also delegate to its staff the authority to place vehicles and drivers out of service. TXDPS did not investigate this crash or conduct an examination of Gemini's vehicle or its driver.

## **2.4 Roadside Inspections**

In the 24 months prior to the crash, Gemini underwent 2,477 roadside inspections resulting in 557 violations being discovered. As a result of these inspections, the vehicle out of service rate was calculated at 2.3% as opposed to the national average of 20.7%. The driver out of service rate was calculated to be 0.3% as opposed to the national average of 5.1%. The hazardous materials out of service rate was calculated to be 0.5% as opposed to the national average of 4.4%. The crash involved driver was subject to a roadside inspection on December 30, 2020, in Houston, Texas. There were no violations discovered during that inspection. The driver had two previous inspections with his former employer. July 10, 2018, and September 29, 2018. Violations discovered were form and manner of emergency response information (49 CFR 172.602(b)), operating a CMV without proof of periodic inspection (49 CFR 396.17(c)) and inoperable required lamp (49 CFR 393.9(a)).

## **2.5 Crash Reports**

In the 24 months prior to the crash, Gemini was involved in 59 reportable crashes.<sup>21</sup> The driver was involved in one incident on May 11, 2021, that will be described further under driver's history.

## **3.0 Driver**

The driver in this crash was a 47-year-old male from Pasadena, Texas. The driver had been employed by Gemini since March 5, 2019.

### **3.1 Driver Qualification**

The driver's qualification file (DQ) file followed the regulatory outline of 49 *CFR* 391.51 and contained a completed application, copy of the driver's motor vehicle record, and other required documentation. According to the DQ file the driver had a medical certificate on file

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<sup>21</sup> To be a reportable crash, it must be a towaway, personal injury or fatal crash

which showed an issue date of December 19, 2019, and an expiration date of December 19, 2021. The DOT physical was performed by a medical professional that was listed on FMCSA’s national registry.

### 3.2 Driver’s License and History

At the time of the crash, the driver held a valid Texas Class A Commercial Driver’s License (CDL), with an endorsement (X) for a combination of tank and hazardous materials. The Texas CDL was issued in January 2020 with an expiration date of February 2025. The CDL was issued with a (P) restriction.<sup>22</sup> It was determined that the (P) restriction was due to the expiration date of the medical certificate. A review of the driver’s application to Gemini revealed the driver had a CDL since September of 1995. The driver had received a traffic ticket on December 8, 2020, in the City of Beeville, Texas for violation of a city ordinance. The alleged violation was for operating a commercial vehicle off the designated commercial vehicle route. There was no conviction listed for this violation. According to Gemini’s records, the driver had been involved in one prior crash involving a Gemini vehicle. On May 11, 2021, the driver went off the edge of the roadway and into a ditch causing damage to a utility pole and fence. Gemini found the driver at fault, provided him with written counseling and suspended his quarterly safety bonus for that quarter.

### 3.3 Driver’s Employment History

According to the driver’s application for employment with Gemini and the background check maintained in the DQ file, the driver held three prior DOT regulated safety sensitive (driver) positions before working for Gemini.<sup>23</sup> The driver’s employment history is outlined in **Table 3**.

**Table 3.** Employment History

Employer	Start Date	End Date	DOT Regulated
Coastal Transport	April 2018	February 2019	Yes
Pepsi	August 2014	April 2018	Yes
Cooseman’s Houston	November 2005	April 2014	Yes

<sup>22</sup> Retrieved from [Driver License Endorsements and Restrictions | Department of Public Safety \(texas.gov\)](https://www.txdps.gov/Driver-License-Endorsements-and-Restrictions)

<sup>23</sup> Safety Sensitive Position – refers to driving positions which fall under the jurisdiction of the Federal Motor Carrier Safety Regulations (FMCSRs).

### 3.4 Driver's Controlled Substance and Alcohol Testing

According to carrier documents, the driver had one FMCSA regulated controlled substance test on file. The controlled substance test was classified as a pre-employment test and was conducted on February 22, 2019, with a verification date of February 25, 2019. According to the carrier files, the driver was subject to a post-crash DOT alcohol test and controlled substance test on October 29, 2021. Both the pre-employment and post-crash tests had negative results. The driver was registered with FMCSA's drug and alcohol clearinghouse.<sup>24</sup>

### 3.5 Driver's Hours of Service

As previously stated, Gemini utilized an ELD to track the driver's HOS. NTSB investigators used the data provided through the ELD and completed an 8-day history of the driver's driving and on-duty time.<sup>25</sup> That history is outlined in **Table 4**. The driver's shift was 4:00 p.m. to 4:00 a.m., five days a week.

**Table 4.** Driving and On-Duty Time

Date	Disposition of hours	Source of Information
October 29, 2021	4 hours 5 minutes on-duty & driving	ELD
October 28, 2021	12 hours 35 minutes on-duty & driving	ELD
October 27, 2021	10 hours 35 minutes on-duty & driving	ELD
October 26, 2021	8 hours 19 minutes on-duty & driving	ELD
October 25, 2021	Off for 24 hours	ELD
October 24, 2021	3 hours 7 minutes on-duty & driving	ELD

<sup>24</sup>Retrieved from [Drug & Alcohol Clearinghouse - Home \(dot.gov\)](#).

<sup>25</sup> Motor Carrier Attachment – Driver Logs (ELD).

October 23, 2021	11 hours 53 minutes on-duty & driving	ELD
October 22, 2021	10 hours 34 minutes on-duty & driving	ELD

### 3.6 Truck Tractor and Semitrailer Maintenance

The truck-tractor involved in the crash was a 2021 Freightliner, Model Cascadia 126 (Unit#21209) owned and operated by Gemini. The truck-tractor's latest annual inspection had been completed on March 22, 2021, with no defects located.

The semitrailer involved in the crash was manufactured by Mack Trailer Mfg. Co. Inc. with a DOT Spec 406 Aluminum cargo tank permanently mounted to it (Unit#3198).<sup>26</sup> The semitrailer's latest annual inspection had been completed on January 12, 2021, with no defects noted. Both inspections for the truck-tractor and semitrailer were conducted in accordance with 49 *CFR* 396.17. Maintenance records produced by the carrier showed a well-documented and systematic program of preventive maintenance that exceeded the requirements of 49 *CFR* 396.3(b).

#### E. Attachments

Motor Carrier Attachment – Driver Code of Conduct  
 Motor Carrier Attachment – Driver Bonus Program  
 Motor Carrier Attachment – Driver Logs (ELD)

END OF REPORT

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Shawn Currie  
 Senior Highway Accident Investigator

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<sup>26</sup>Retrieved from [CFR-2010-title49-vol2-sec178-346.pdf \(govinfo.gov\)](https://www.govinfo.gov/records/cfr-2010-title49-vol2-sec178-346.pdf)