



## SOLID WASTE INSPECTION REPORT

Agency: Colorado Department of Public Health and Environment,  
Hazardous Materials and Waste Management Division (HMWMD)

Date and Time: July 13, 2023 Time: 8:00 AM - 9:30 AM

Site: Shirley Septic Pumping facility located at Reffel Ranch  
14803 Wandcrest Drive  
Pine, CO 80470  
Park County

Owner: Reffel James D  
122 S Gowan St  
Coolidge, AZ 85128

Inspection: Complaint, announced

Site Representatives: Adam Shirley, owner, Shirley Septic Pumping

Inspectors: Derek Boer and Ed Smith, HMWMD

Weather Conditions: Sunny, dry

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### Introduction

On July 13, 2023, inspectors Derek Boer and Ed Smith from the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the “Division”) conducted an announced inspection of the Shirley Septic Pumping facility at Reffel Ranch (the “Facility”) located at 14803 Wandcrest Drive in Park County, Colorado. The purpose of the inspection was to evaluate compliance of the Facility with the requirements set forth in the Solid Wastes Disposal Sites and Facilities Act (the “Act”), CRS 30-20-100.5 et seq. and the Regulations Pertaining to Solid Waste Sites and Facilities, 6 CCR 1007-2 (the “Regulations”).

The inspectors had previously attempted to conduct an unannounced inspection of the Facility on June 29<sup>th</sup> but Mr. Shirley was not available. The Division received multiple complaints alleging illegal dumping of septage waste on the ground and/or waste transfer at the Facility. Complaints were also filed with the Park County Manager and Director of Operations and numerous other state and local officials.

### Site Background

Park County Environmental & Code Compliance issued a cease and desist letter to Mr. Shirley on March 27, 2023. The letter required him to cease operations and to remove all associated equipment from the site



within 10-days. The cease and desist letter stated that Mr. Shirley was in violation of operating a waste transfer station on residential zoned property.

In an email to the WQCD dated May 31, 2023, Mike Smith, Director of Park County Operations, stated that he and Tom Eisenman, Park County manager, had visited the site and were working with Mr. Shirley to meet Park County Land Use Regulations. According to Mr. Eisenman and Mr. Shirley, Mr. Shirley is seeking to move operations located at the site to another location and is awaiting County zoning approval.

Mr. Shirley and/or James Reffel appear to jointly own several properties in the immediate area. Treatment of domestic septage as described below was taking place on 40-acres at 14803 Wandcrest Drive on the day of the inspection.

Shirley Septic Pumping is a septic waste cleaner and/or hauler and is licensed by Park County for that activity, according to the Park County web site.

### Site Inspection

The inspectors met Mr. Shirley at 1403 Wandcrest Drive at approximately 8:00 am. The inspectors provided Mr. Shirley their business cards and reiterated that the inspection was being conducted to investigate complaints regarding the illegal land disposal of septage waste.

According to Mr. Shirley, domestic septage is treated at this location in closed containers, frac tanks, and a dewatering unit. Mr. Shirley stated that he is operating under 40 CFR Part 503, Standards for the Use or Disposal of Sewage Sludge. He explained that he treats only domestic septage from residential systems as described below and does not treat any waste from portable restrooms. The operation is seasonal due to winter weather, and therefore, most of the operations onsite cease during the winter months, according to Mr. Shirley.

Domestic septage is hauled to the facility in approximately 2,500-gallon tanker trucks. Upon arrival, the septage is treated with lime inside the trucks to raise the pH of the septage to above 12 for at least 30 minutes, as required by Part 503. The septage is then screened through a shaker screen to remove any debris from the septage before being pumped into a frac tank. Waste collected from the screen is hauled to either Tower or Foothills landfills, according to Mr. Shirley. *See Photos 1-3*

From the frac tank, the septage is pumped into a dewatering unit manufactured by “In The Round Dewatering.” A flocculent, Praestol K 133 L, is added to separate the solids from the water. The dewatering unit rotates to facilitate the separation of the solids from the water. Water that is removed from the dewatering unit is pumped to another frac tank for storage before land application. The solids are removed from the dewatering unit and stored on the ground adjacent to that unit. *See Photos 4-6*

Water that is generated from dewatering is pumped from the second frac tank to water trucks and is currently applied to two nearby properties owned by Mr. Shirley. Mr. Shirley stated the water is primarily applied to a 185-acre parcel of land northwest of 14803 Wandcrest Drive. Mr. Shirley stated that the public infrequently visits this property and no trespassing signs have been posted to keep the public off the land.

Mr. Shirley stated that he grazes cattle on this property, bringing cows to the property from April through June. Mr. Shirley stated that the wastewater application rate is less than 11,000 gallons per acre per year as calculated using the Part 503 regulations. Mr. Shirley explained that he typically land applies water from approximately April through mid-August, and he tracks where the water is applied so as not to reapply on the same area within the year. He further stated that he doesn’t allow grazing or any agriculture on that land until 30 days after application.



Mr. Shirley stated that he keeps records for all operations including incoming waste manifests, volumes of waste applied, dates of application, and yearly application rates.

The solids removed from the dewatering unit are being held on-site for TENORM analysis. Mr. Shirley plans to land apply the sludge in Weld County. Mr. Shirley estimated that there were three 40-yard rollofs of this material on site. The material was being stored adjacent to the dewatering unit and was contained by concrete jersey barriers.

Mr. Shirley stated that four to five septage trucks of approximately 2,500 gallons each are received each day and the contents are treated on-site.

After inspecting the operations area, the group walked to a livestock pen located uphill from a small pond located on the property. There the inspectors observed a watering tank for livestock. Complaints received by the Division alleged that water from the treatment operation was being land applied onsite. However, Mr. Shirley asserted that a hose from a recirculating water system that supplies water for the livestock has been knocked lose by the livestock and water has trickled down the pen into the pond. The water used in the recirculating system is pumped from the pond itself, according to Mr. Shirley.

Mr. Shirley stated that he does not have a permit from the EPA for operation under Part 503, and he further stated that it appears the EPA does not issue permits for this activity. Mr. Shirley stated that Park County doesn't have a land application program for Part 503 applications. He further stated that Mr. Eisenman and Mr. Smith from the County have inspected the site and have given him verbal approval to conduct the operations and land application.

Mr. Shirley stated that he is working with Park County to relocate this operation to a location that is appropriately zoned for this activity. Mr. Shirley indicated that he hopes to relocate these operations by the end of August pending County Zoning approval.

### Findings

Based on observations made at the time of the inspection and conversations with Mr. Shirley, the Division has not identified any apparent violations of the Solid Waste Act or Regulations.

Prepared by: Derek Boer

Date: 7/14/2023

Derek Boer  
Environmental Protection Specialist  
Compliance Assurance Unit  
Solid Waste and Materials Management Program  
Colorado Department of Public Health and Environment

### Attachments

Attachment A  
Attachment B

Inspection Photos taken on July 7, 2023  
Notice of Inspection

