

St. Croix Operating, Inc.
Dune #1
SENE Section 28, T1N R50W
Washington County, Colorado

WASTE MANAGEMENT PLAN

St. Croix Operating, Inc. (St. Croix) has drafted this plan in compliance with COGCC Rules 304.c.(11) and 905.a.(4). St. Croix's intention is to follow all local, state, and federal regulations regarding any E&P waste generated at this location.

E&P wastes are not regulated (i.e., exempt) as hazardous wastes by the Environmental Protection Agency (EPA) (40 CFR 261) or by the COGCC. The COGCC regulates E&P wastes in the State of Colorado. Both agencies publish a list of E&P exempt wastes on their websites. To qualify as an E&P waste, the waste must be generated during the drilling, completions, or production operations. These wastes must be managed (treated, stored, transported, and disposed of) in accordance with COGCC, County and municipal regulations, and land use codes and ordinances.

Non-E&P Wastes (i.e., wastes not generated as part of Oil and Gas downhole operations) must be managed in accordance with Colorado Department of Public Health and Environmental ("CDPHE") regulations, and county and local landfill or waste disposal facility requirements.

SITE DESCRIPTION

This location will contain one vertical oil well. No production equipment will be on location. The well will be connected via off-location flowline to the production equipment at the proposed Dune Production Facility.

The location is on private surface. Any remediation or closure activities above and beyond the operations currently included in the executed Surface Use Agreement necessary at the location will be agreed upon with the surface owner at the time of remediation and/or closure activity.

DRILLING

Description of the Process Generating the Waste:

Water-based drilling fluids are used to lubricate and remove drill cuttings during the drilling process. Drilling fluids are processed to remove solids and recirculated. The drill cuttings are small pieces of rock and soil that break away from the well walls during

drilling and are screened out of the liquid mud system. When drilling is complete, or drilling fluid is spent, the fluids are transported to a commercial disposal facility.

Drill Cuttings:

A closed loop drilling system will be used. The cuttings will be stored in an above ground container and hauled offsite for commercial disposal by a licensed third-party transportation company.

Freshwater drilling mud will be utilized for drilling this well.

Drill Fluids:

A closed loop drilling system will be used. The fluids will be stored in an above ground container and hauled offsite to an approved disposal facility by a licensed third-party transportation company. Excess water will be taken to be disposed of at the existing St. Croix operated Young SWD 31-1150 Class II disposal well.

COMPLETIONS

Description of the Process Generating the Waste:

This well will not undergo hydraulic fracturing so fluids generated during the completions process should be minimal.

Post-drilling wellbore clean-out may occur. The wellbore will be perforated, and some acid run in the wellbore to assist in the clean-out.

Completion Fluids:

Completion fluids will be sent to tanks, separators, or other containment/filtering equipment before the fluids will be placed into any pipeline, storage vessel located on the well pad, or into tanker trucks for offsite disposal. Excess completion water from completion operations will be taken to the St. Croix operated Young SWD 31-11350 Class II disposal well. MSDS sheets will be maintained for any additives used in stimulation.

Flowback Fluids:

There will be no flowback fluids from the completion operations of this well.

PRODUCTION

Description of the Process Generating the Waste:

Produced fluids will be brought up from the hydrocarbon formations during the extraction of hydrocarbons. It will primarily consist of formation water.

Produced Fluids:

Produced water will be piped to the proposed Dune Production Facility location for disposal in the St. Croix proposed Dune SWD #2 Class II disposal well. Prior to disposal, produced water will be stored in containers that meet COGCC regulations. Tanks will be labeled in accordance with COGCC regulations. All load lines shall be bull plugged or capped. Secondary containment areas for tanks shall be constructed of steel panels, designed and installed to prevent leakage and resist degradation from erosion or routine operation and shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and flowlines and is mechanically connected to the steel ring to prevent leakage. Steel berms will be able to contain spills with capacity > 150% volume of the largest tank. Any spills will be immediately cleaned up and reported if volume exceeds reporting limit.

Whenever feasible, produced water will be recycled to support St. Croix drilling operations.

SPILL RESPONSE AND REMEDIATION**Description of the Process Generating the Waste:**

Soil that has been impacted with produced hydrocarbons.

Impacted Soils:

Occasionally, spills of produced fluids may occur during oil and gas operations that result in localized impacts to soils on or near the oil and gas location. All spills are immediately cleaned up by St. Croix personnel. Impacted soils are assessed to determine if they exceed regulatory clean-up standards and require removal, treatment, or disposal. Characterizing potentially contaminated soils is accomplished either by field-screening the impacted soils to determine relative hydrocarbon concentrations, and/or by collecting samples of the impacted soils and sending the samples to an approved commercial lab for analysis per Table 915-1 constituents.

All contaminated soils exceeding regulatory clean-up standards are excavated and managed/disposed of properly. If a spill incident is subject to agency reporting requirements, the appropriate agencies are notified within the regulatory timelines. Impacted soils that exceed applicable clean-up standards are typically excavated and taken to an off-site commercial disposal facility that is authorized to accept that type of waste.

FACILITY DECOMMISSIONING

Description of the Process Generating the Waste:

Once the well has fulfilled its useful life, it may be a candidate for plugging and abandonment. This location will undergo site assessment as per Rule 911. During the life of the well, soils surrounding the wellhead may be found to have been impacted by operations.

Impacted Soils:

At the time of plugging and abandonment, the soils around the location will undergo characterization to verify compliance with Table 915-1. Characterizing potentially contaminated soils is accomplished either by field-screening the impacted soils to determine relative hydrocarbon concentrations, and/or by collecting samples of the impacted soils and sending the samples to an approved commercial lab for analysis per Table 915-1 constituents.

All contaminated soils exceeding regulatory clean-up standards are excavated and managed/disposed of properly. If a spill incident is subject to agency reporting requirements, the appropriate agencies are notified within the regulatory timelines. Impacted soils that exceed applicable clean-up standards are typically excavated and taken to an off-site commercial disposal facility that is authorized to accept that type of waste.

PLUGGING AND ABANDONMENT

Description of the Process Generating the Waste:

Drilling mud circulated out of annulus and cement brought back to surface during plugging activities.

Plugging Fluids:

Excess fluids utilized during the plugging and abandonment will be stored in tanks on location until the well is abandoned. Once they are no longer required, they will be hauled to a commercial disposal facility.

OTHER WASTES

Garbage:

Garbage, trash, and other waste materials will be collected in a portable, self-contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill.

Sewage:

Self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of at the nearest, approved sewage disposal facility.

RECORDS MANAGEMENT

St. Croix will comply with COGCC Rule 905.b. All E&P waste will be transported within Colorado. As per 905.b.(3), St. Croix will maintain records for a minimum of 5 years of invoices, bills, tickets, and any other records as necessary to document the following information:

- Date of transport.
- Identity of waste generator.
- Identity of waste transporter.
- Location of waste pickup site.
- Type and volume of waste; and
- Name and location of treatment or disposal site.

Records will be maintained in compliance with COGCC Rule 206, Recordkeeping and Access to Records. Records will be maintained at St. Croix's Denver office.

OFFSITE DISPOSAL FACILITIES

Commercial Facility:

Washington County Landfill
150 Ash Ave.
Akron, CO 80720

Fluids Disposal:

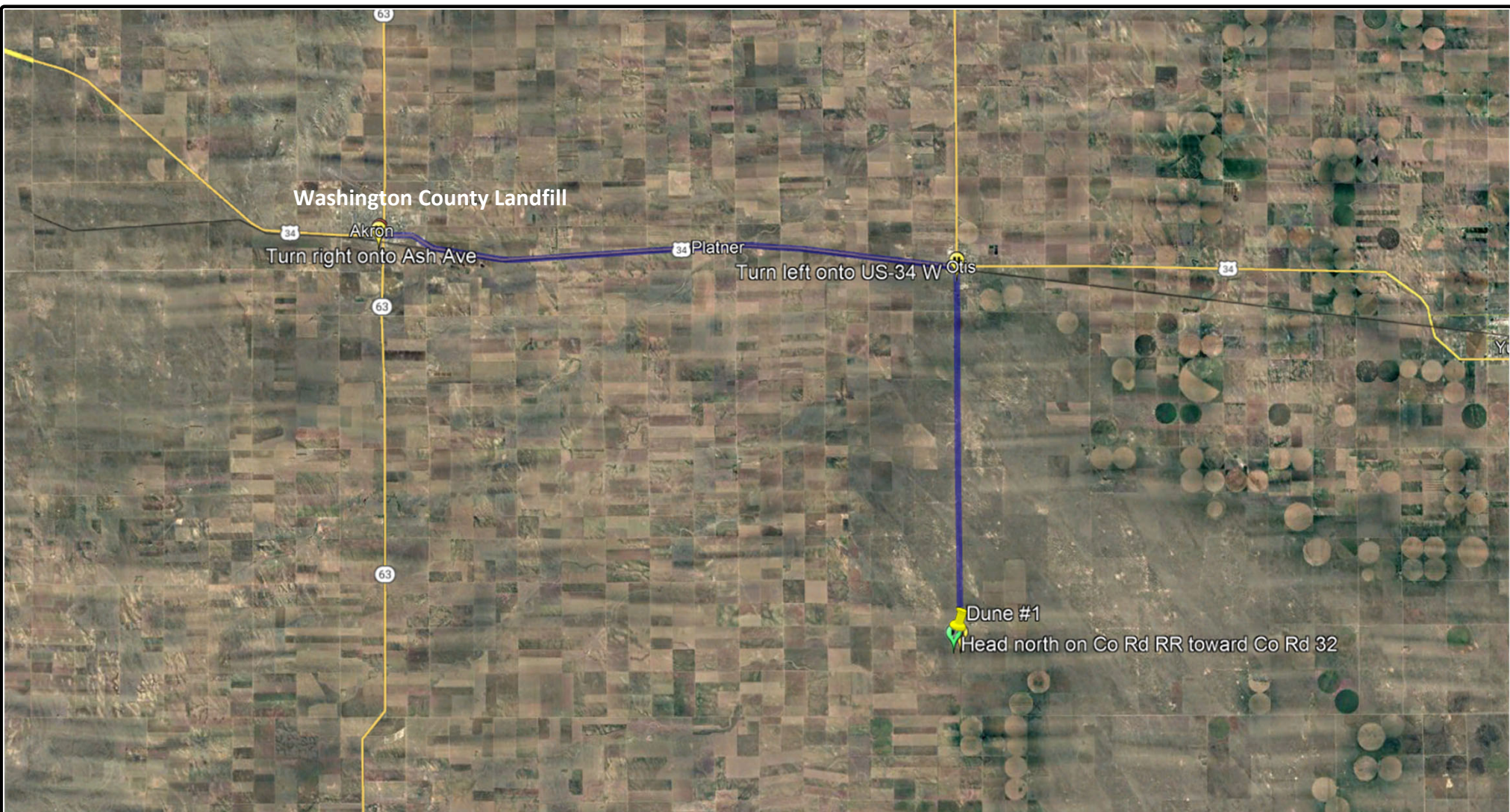
Young 11350 SWD
API # 05-121-10850, UIC Disposal # 159242
NWNE Section 11, T3S R50W
Latitude/Longitude: 39.813579 -102.941694

BEST MANAGEMENT PRACTICES

- Operator will use appropriate haul routes for all waste transportation.
- Onsite E&P Waste Storage will be stored in compatible containers or engineered containment devices. The containers will be regularly inspected to ensure they are in good condition and free of excessive wear, structural issues, or other defects that may impact their effectiveness.
- Operator will not bury or burn trash or other waste materials at this location.
- Trash receptacles will be designed, maintained, and operated to protect public safety and the environment from exposure to overflowing, leak prone, or insecure trash receptacles.

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Waste Management Plan

| Waste Type | Waste Classification | Waste Content Description | Waste Per Well | Disposal Frequency | Containment Description | Disposal Type | Disposal Location |
|-----------------------------|---------------------------|---|--------------------|--------------------|--|---|--|
| Drilling Cuttings | E&P Waste | Water-based Drill Cuttings | 84 cubic yards | One Time Only | Above-ground steel containment receptacles | Haul to Commercial Facility | Commercial |
| Water-Based Drilling Fluids | E&P Waste | Water-based Drill Cuttings | 100 bbls | One Time Only | Tanks | Haul to Commercial Facility | Commercial |
| Cement | E&P Waste | Excess Cement from casing | 1 cubic yard | One Time Only | Tanks | Haul to Commercial Facility | Commercial |
| Sewage | Non-Hazardous Solid Waste | Sewage | 130 gals | Weekly | Chemical Toilets | Haul to Commercial Facility | Commercial |
| Garbage | Non-Hazardous Solid Waste | Garbage/Trash | 10 cubic yards | Weekly | Enclosed trash containers | Haul to Commercial Facility | Commercial |
| Contaminated Soils | E&P Waste | Contaminated soils from spill or release of produced fluids | N/A | As needed | Earthen berm containment on location | Onsite treatment or Haul to Approved Commercial Disposal Facility | Onsite or Commercial |
| Produced Water | E&P Waste | Formation Water | 7,000 bbls / month | As needed | Tanks | Recycled or injected | St. Croix-operated UIC Class II facility |
| Plugging Fluids | E&P Waste | Excess mud and used water | 200 bbls | One Time Only | Tanks | Haul to Commercial Facility | Commercial |



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 Landfill Haul Route Map

Legend

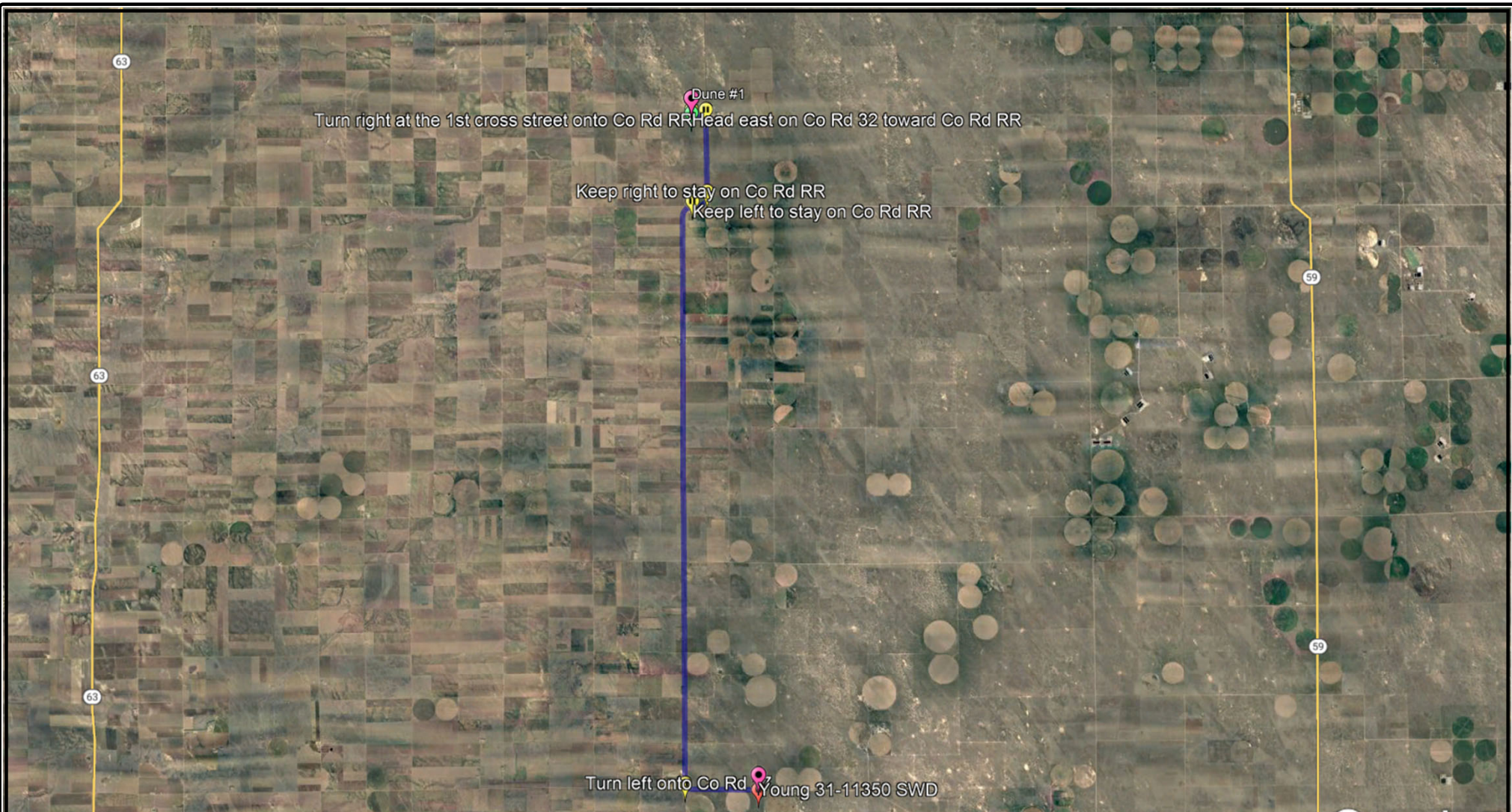


Haul Route



Prepared By:
 Ardor Environmental LLC

November 2, 2022



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SWD Haul Route Map

Legend



Haul Route



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