STATE OF COLORADO

Cazier - DNR, Tim <tim.cazier@state.co.us>

M1997-054 Parkdale Quarry Reclamation Permit Amendment 2

1 message

David Bieber <David.Bieber@martinmarietta.com> Wed, Jun 9, 2021 at 12:10 PM
To: "Cazier - DNR, Tim" <tim.cazier@state.co.us>

Hi Tim.

We have received some questions regarding stormwater discharge points on our permit to Fremont County. Since those questions may come up in our DRMS permit amendment application, we have put together the appended document to provide additional information.

Regards.

Dave

David W. Bieber, PG
Manager of Geology/Survey | West Division

Martin Marietta

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2021 Amendment Supplemental Stormwater Information.pdf
5137K

M1997-054 FRONT RANGE PARKDALE PIT 2021 AMENDMENT

Supplemental Stormwater Management Information

The Front Range Parkdale Pit currently has a Stormwater Management Plan (the SWMP) and stormwater permit, Permit No. COG-500325. A copy of the SWMP is attached to this supplement. The SWMP format is based on the Colorado Discharge Permit System (CDPS) General Permit for Sand and Gravel Mining and Processing (Permit No. COG-500000) (General Permit). The SWMP has been written in accordance with the updated requirements put forth by the January 1, 2017 General Permit.

The SWMP identifies potential sources of pollution (including sediment) reasonably expected to affect the quality of stormwater discharges associated with the mining activity. In addition, the SWMP describes practices to be used to reduce pollutants in stormwater discharges associated with mining activity at the facility, and ensure those practices are selected and described in accordance with good engineering practices (including the requirements for installation, implementation, and maintenance). Also, the SWMP is prepared and updated in accordance with the "Stormwater Management Plan (SWMP)" section of the "Stormwater Discharges" section of the General Permit, to ensure compliance with the terms and conditions of the General Permit.

As a condition of the General Permit, facilities must implement the provisions of the SWMP as written and updated, from commencement of facility activity until completion of final reclamation.

This SWMP includes and identifies the following:

- A facility description and map;
- One or more individuals (with specification of position[s] or title[s] within the mining organization) responsible for developing, implementing, maintaining, and revising the SWMP;
- Potential pollutants at the facility, and materials and business practices at the facility that may lead to discharges of polluted stormwater;
- Best Management Practices (BMP) that will be used to prevent potential discharges;
- Other pollution prevention measures;
- A preventive maintenance program that incorporates the requirements for inspection frequency and monitoring;
- Good housekeeping practices; and
- All discharges other than stormwater.

Changes to Existing Stormwater Management

The changes to the mining operation with respect to potential impacts to stormwater management are an expansion of the area mined for the granite quarry north of the Tallahassee Creek and east of Currant Creek. Natural surface water resources include Tallahassee Creek and Currant Creek that lie to the south and east of the expansion area. FEMA floodplain maps indicate that the areas of anticipated disturbance in the expansion area lie outside of the 100-year flood plain. Currently proposed operations within the expansion area will not require dewatering. Before active mining activities commence in the expansion area the SWMP will be updated to include those activities.

Four natural stormwater discharge locations are present in the portion of the expansion area where disturbance activities will occur as shown on the appended Proposed Stormwater Discharge Map. Each discharge point is anticipated to accept approximately one-quarter of the discharge flow from the overall drainage area feeding the overall disturbance area. The expansion area will be using concurrent reclamation to minimize exposed surface area and mining is phased from west to east so that reclamation in one area is being completed as mining in the next is starting. Therefore, typically only one of the four discharge points will be draining unreclaimed land at any time. Each discharge point that is draining an active mining area will have a detention basin upstream of the discharge point to collect sediment, and the detention basins will be sized to retain the required design storm event. Detention ponds will be designed in conformance with Urban Drainage Flood Control District (UDFCD) Urban Storm Drainage Criteria Manual, Volumes I thru III (UDSDC) or other approved design standard. Stormwater detention basins will be constructed prior to the initiation of mining disturbance activities within the area draining to a given discharge point.

The following activities will occur within the expansion area:

Loading and unloading operations. The processes within the expansion area will involve solid earthen materials with inert properties. These materials are not likely to significantly impair surface water or groundwater. The facility will use water to suppress dust, but not in quantities likely to cause runoff. Other loading activities may include loading of aggregate into a crushing plant hopper (partially enclosed) by haul trucks to facilitate conveyance to the processing plant. Particulate matter is controlled while loading into the hopper and trucks by keeping the stockpiles moist and limiting the drop heights. In conclusion, loading activities are controlled by partial enclosures and water suppression.

Crushing facilities. Crushing equipment may be used to crush quarried materials to a size suitable for transport by conveyor to the material processing plant. The crushers and screens are partially enclosed to prevent fugitive dust emissions. Dust from crushing activities is also controlled by the application of water via spray bars/nozzles. These are strategically placed to efficiently minimize dust at applicable transfer points during the conveyance process.

On-site refuse disposal practices. No refuse is disposed of at the facility and no refuse will be disposed of in the expansion area. Refuse generated at the facility is managed in roll off containers or dumpsters that are kept closed when not in use. The roll off containers and dumpsters are serviced by a contracted third party. There are currently no waste ponds at this facility.

Stockpiles. The stockpiles in the expansion area will be of solid earthen materials with inert properties. These materials are not likely to significantly impair surface water or groundwater. Areas of stockpiled materials are graded and bermed to direct runoff carrying suspended solids ultimately to the facility's settling ponds and permitted outfalls. In addition, runoff from other areas of the facility is channeled away from stockpiles to prevent erosion. Windblown particulates from the stockpiles are controlled by water suppression.

Routine maintenance activities. The facility maintains and services heavy mining equipment at the aggregate maintenance shop outside of the expansion area. The facility Spill Prevention, Countermeasures, and Control plan covers accidental releases and routine cleanup procedures for the maintenance shop. There is also a mobile servicing truck for the pieces of equipment that are not mobile.

Haul roads. Dust on haul roads is controlled by application of water from water trucks, but not in quantities sufficient to generate runoff. Roads are graded to keep runoff carrying suspended solids on the facility property and to direct it to the facility's settling ponds and permitted outfalls.

Disturbed areas. Areas of active mining are disturbed. Areas of the active quarry are graded and bermed to keep runoff carrying suspended solids on the facility property and to direct it to the facility's settling ponds and permitted outfalls. Areas of disturbance that are not active are re-vegetated to prevent erosion.

Proposed Stormwater Discharge Map

Parkdale Quarry BLM Expansion
Fremont County, Colorado

Legend

- Approximate Stormwater Discharge Point
- Mineral Materials Competitive Sale COC-078119
- Proposed Mining Disturbance Area
- Stormwater Detention Basin

Approximate Stormwater Discharge Point
Stormwater Detention Basin
Approximate Stormwater Discharge Point
Stormwater Detention Basin
Stormwater Detention Basin
Approximate Stormwater Discharge Point
Stormwater Detention Basin
Approximate Stormwater Discharge Point
157
Google Earth
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2000 ft

Stormwater Management Plan (SWMP)

Parkdale Quarry
Cañon City, Fremont County, Colorado

Permit No. COG-500325

Martin Marietta Materials, Inc. – Rocky Mountain Division
1627 Cole Blvd, Suite 200
Lakewood, CO 80401

The Stormwater Management Plan (SWMP) format is based on the Colorado Discharge Permit System (CDPS) General Permit for Sand and Gravel Mining and Processing (Permit No. COG-500000) (General Permit). This plan has been write in accordance with the updated requirements put forth by the January 1, 2017 General Permit.

The SWMP identifies potential sources of pollution (including sediment) reasonably expected to affect the quality of stormwater discharges associated with the mining activity. In addition, the SWMP describes practices to be used to reduce pollutants in stormwater discharges associated with mining activity at the facility, and ensure those practices are selected and described in accordance with good engineering practices (including the requirements for installation, implementation, and maintenance). Also, the SWMP is prepared and updated in accordance with the "Stormwater Management Plan (SWMP)" section of the "Stormwater Discharges" section of the General Permit, to ensure compliance with the terms and conditions of the General Permit.

As a condition of the General Permit, facilities must implement the provisions of the SWMP as written and updated, from commencement of facility activity until completion of final reclamation.

This SWMP includes and identifies the following:

- A facility description and map
- One or more individuals (with specification of position[s] or title[s] within the mining organization) responsible for developing, implementing, maintaining, and revising the SWMP
- Potential pollutants at the facility, and materials and business practices at the facility that may lead to discharges of polluted stormwater
- Best Management Practices (BMP) that will be used to prevent potential discharges
- Other pollution prevention measures
- A preventive maintenance program that incorporates the requirements for inspection frequency and monitoring
- Good housekeeping practices
- All discharges other than stormwater.

Martin Marietta Materials, Inc.
Stormwater Management Plan
Parkdale Quarry

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Appendices

Figures (in Appendix A)

1 PLAN CERTIFICATION

Facility Name:	Parkdale Quarry (Facility #COG-500325)
Facility Type:	Sand & Gravel (SIC: 1442 NAICS: 212321)
NPDES General Permit Number:	COG-500000
Date that initial operation began:	1984
Facility Address:	112 County Road 157, Cañon City, CO 81212
Environmental Emergency Contact:	Beth Haake – 720-249-7447
Facility Emergency Contact:	Josh Esquibel – 719-648-3490
Operation Schedule:	5 days a week, 12 hours per day, Saturday intermittently
SWMP Administrator	Beth Haake – Environmental Engineer

This stormwater management plan (SWMP) was prepared in accordance with good engineering, hydrologic, and pollution control practices. This SWMP has been prepared and implemented for the Martin Marietta Materials, Inc. (Martin Marietta) Parkdale Quarry facility located at 112 County Road 157, Cañon City, Fremont County, Colorado 81212.

In compliance with the provisions of the Colorado Water Quality Control Act (25-8-101 et seq., CRS, 1973 as amended), facilities engaged in mining and the processing of and other nonmetallic minerals (except fuel) are authorized to discharge surface runoff and process water from authorized locations throughout the State of Colorado to specified surface waters of the State. Such discharges shall accord with conditions of the Colorado Discharge Permit System General Permit COG-500000. Martin Marietta is aware that implementation of the provisions in this SWMP is required under the condition of the permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations without disclosure of these.

John Anderson (Vice President/*General Manager*)

Signature  Date 11/30/2020

2 FACILITY DESCRIPTION

The Parkdale (facility) is located at 112 County Road 157, Cañon City, Colorado 81212 (see Appendix A, Figure 1). A facility map showing facility-specific characteristics and best management practices (BMP) implemented at the facility appears as Figure 2 in Appendix A, and is updated to incorporate changes at the facility.

The facility consists of approximately 1,058 acres of land used for the mining of granite. Site operations include excavation of granite; material loading, unloading, and conveyance; aggregate crushing and screening; vehicle and equipment maintenance and fueling; pit dewatering; and material storage and stockpiling. During the preparation of aggregate, the facility also generates wash water.

Mining activities occur north of Tallahassee Creek. These mining activities will remain in the northern portion of the facility until the reserves are depleted. Concurrent reclamation is employed at the facility and as each bench or pit is mined, it is graded to the Colorado DRMS specified slopes, then it is mulched and seeded or other final reclamation method is employed. Previous sand and gravel mining activities that occurred at the south western and south eastern portions of the property are being reclaimed to Colorado DRMS standards.

Buildings on the property consist of an office, office trailer, radio shed and an empty house all located directly north of the entrance to the property. A maintained shop is located north east of the entrance to the property. An old homestead is located along the eastern edge of the property. The homestead consist of a home and a few miscellaneous sheds. Raw material stockpiles are located at the center of the property. Once the material is mined, it is hauled from the mining face on the haul roads and deposited at the processing plant which is located south of the mining area. Once the material is processed, it is than stockpiled accordingly. From the stockpile location, the material is than loaded on to train cars that leave the property through the south eastern corner. (See Figure 1)

The mining operation is characterized by two areas of mining activity: extraction from the quarry, the processing facility. The granite quarry is located north of the Tallahassee Creek. Natural surface water resources include Tallahassee Creek and the Arkansas River lies to the southeast of the site. FEMA floodplain maps indicate portions of the operation lie within the 100-year flood plain; however, base flood elevations have not been determined. The Parkdale Quarry operation requires dewatering. Dewatering trenches and dewatering pump location changes with mining. Groundwater is collected in sedimentation ponds and used in processing. The water table fluctuates according to snow pack and seasonal precipitation. Groundwater discharge occurs only during extreme precipitation events.

The following permitted outfalls are present at the facility and are shown on Figure 2:

- **Outfall 001-A.** The discharge from a settling basin located in the south central area of the site, prior to entering the Arkansas River.

- **Outfall 002-A.** The discharge from a settling basin located in the south central area of the site, prior to entering Tallahassee Creek, tributary to the Arkansas River.

- **Outfall 003-A.** The discharge from a settling basin located in the south central area of the site, prior to entering Tallahassee Creek, tributary to the Arkansas River.

- **Outfall 004-A.** Stormwater only. Tallahassee Creek to Arkansas River
- **Outfall 005-A.** Stormwater only. Tallahassee Creek to Arkansas River

The facility map includes the following features (see Figure 2):

- Mining site and processing operation boundaries
- Surface water location and name
- Location of impervious surfaces
- Stormwater conveyances including ditches, pipes and swales
- Access and haul roads
- Stormwater outfalls and an outline of the drainage area of each stormwater outfall
- Estimated direction of stormwater flow
- Each existing structural control measure to reduce pollutants in stormwater runoff
- Non-structural BMPs, as applicable
- Springs, streams, wetlands, and other surface waters
- Mine drainage or any other process water
- Dedicated asphalt or concrete batch plants
- Areas used for recycling asphalt or concrete
- All areas current and previous mining and processing activates
- All areas of soil disturbance, reclamation and revegetation
- Locations and descriptions of all potential stormwater pollution sources, including, but not limited to, the following:
    - Materials handling areas
    - Vehicle fueling areas
    - Fertilizer or chemical storage areas
    - Areas used for storage or disposal of overburden, materials, soils, or wastes
    - Areas used for mineral milling and processing.
    - All access and haul roads
    - All asphalt or concrete batch plants or areas used for recycling of asphalt or concrete
- Boundary of tributary area subject to effluent limitations
- Location of significant spills or leaks
- Stormwater monitoring points
- Non-stormwater discharge authorized by separate permit coverage
- Run onto the facility from adjacent property that contains significant quantities of pollutants
- Date the map was prepared.

3 DESCRIPTION OF POTENTIAL POLLUTANT SOURCES/MATERIAL INVENTORY

This SWMP identifies possible sources of pollutants (activities and materials) at the facility, and assesses the potential of these sources to contribute pollutants to stormwater discharges associated with mining activities. The SWMP also describes appropriate BMPs to reduce the potential of these identified sources contributing pollutants to stormwater discharges. These BMPs are implemented by qualified personnel employed by Martin Marietta that have completed Martin Marietta's training program.

Loading and unloading operations. The majority of manufacturing processes at the facility involve solid earthen materials with inert properties. These materials are not likely to significantly impair surface water or groundwater. The facility uses water to suppress dust, but not in quantities likely to cause runoff. Other loading and unloading activities include loading of aggregate into the main crushing plant hopper (partially enclosed) by haul trucks and loading crushed aggregate into costumer trucks and trains by loaders (moist material & limiting drop heights). Particulate matter is controlled while loading into the hopper and trucks by keeping the stockpiles moist and limiting the drop heights. In conclusion, loading activities are controlled by partial enclosures and water suppression.

Outdoor storage of chemicals or equipment. The only chemicals stored outside at the facility are petroleum products, including gasoline, diesel fuel, fuel additives, and lubricants. Heavy equipment, used and unused, is stored outside at the facility. Fuel, lubricants, coolants, battery fluids, or hydraulic fluids may be released from this equipment. These materials—in storage and in use in equipment—are covered by the facility's Spill Prevention Control and Countermeasures (SPCC) plan. Materials in storage are held in secondary containment units with a capacity of at least 110% of the container or tank capacity or are stored in double-walled steel containers on impervious surfaces. Heavy equipment (with large fuel and hydraulic oil tanks) and a refueling truck are parked in a surface depression that is expected to contain all flow on the property.

Crushing facilities. The facility uses crushing equipment to crush quarried materials into finer products. The crushers and screens are partially enclosed to prevent fugitive dust emissions. Dust from crushing activities is also controlled by the application of water via spray bars/nozzles. These are strategically placed throughout the primary and secondary plants to efficiently minimize dust at all applicable transfer points. The moist material is then stockpiled via conveyor.

On-site waste disposal practices. No waste is disposed of at the facility. Refuse generated at the facility is managed in roll off containers or dumpsters that are kept closed when not in use. The roll off containers and dumpsters are serviced by a contracted third party. There are currently no waste ponds at this facility.

Stockpiles. The majority of stockpiles at the facility are of solid earthen materials with inert properties. These materials are not likely to significantly impair surface water or groundwater. Areas of stockpiled materials (intermediate and finished products) are graded and bermed to direct runoff carrying suspended solids ultimately to the facility's settling ponds and permitted outfalls. In addition, runoff from other areas of the facility is channeled away from stockpiles to prevent erosion. Windblown particulates from the stockpiles are controlled by water suppression.

Routine maintenance activities. The facility maintains and services heavy mining equipment at the aggregate maintenance shop. Maintenance activities may generate petroleum waste, used coolants, used lubricants, and other materials that might have an impact if released. The facility SPCC plan covers accidental releases and routine cleanup procedures for this area. There is also a mobile servicing truck for the pieces of equipment that are not mobile.

Haul roads. Dust on haul roads is controlled by application of water from water trucks, but not in quantities sufficient to generate runoff. Roads are graded to direct runoff carrying suspended solids onto the facility property and ultimately to the facility's settling ponds and permitted outfalls.

Disturbed areas. Areas of active mining are disturbed. Areas of the active quarry are graded and bermed to direct runoff carrying suspended solids onto the facility property and ultimately to the facility's settling ponds and permitted outfalls. Areas of disturbance that are not active are re-vegetated to prevent erosion.

In addition, the facility discharges groundwater generated during dewatering of quarry pits. This groundwater also is directed to the settling ponds before it is discharged from one of the permitted outfalls.

Areas exposed to air emissions. Air emissions from processing activities are kept to a minimum by the application of water from spray bars, but not in quantities sufficient to generate runoff. Areas including but not limited to roofs that are around the processing area will be exposed to air emissions. In addition, areas downwind from the processing area will be exposed to air emissions. Stormwater runoff from these areas will be controlled so that the water carrying suspended solids into the facility is ultimately directed to settling ponds and permitted outfalls.

Mobilization of galvanized material. Galvanized material that may be mobilized by stormwater will be properly identified and secured within reason. The majority of galvanized material that is located at the facility is close to buildings or structure. During a stormwater event these materials should be monitored to ensure they are not mobilized.

4 MATERIAL INVENTORY

None of the buildings at the facility that are used to store materials have floor drains. The only materials stored outside are petroleum products and stockpiles of intermediate and finished products. The petroleum products are covered by the facility's SPCC plan and stored in secondary containment. The stockpiled materials are solid earthen materials with inert properties. Areas of stockpiled materials (intermediate and finished products) are graded and bermed to direct runoff carrying suspended solids into the facility property and ultimately to the facility's settling ponds and permitted outfalls. In addition, runoff from other areas of the facility is channeled away from stockpiles to prevent erosion. Concurrent reclamation of past mining areas will prevent potential sources of pollutants from being discharged in the pit.

5 STORMWATER QUALITY CONTROLS

Following is a description of stormwater quality controls and their implementation at this facility, as required by the General Permit.

5.1 SWMP Administrator

The SWMP Administrator is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP. The SWMP Administrator leads the SWMP Administrative Team, identified in Section 5.2.

5.2 SWMP Administrative Team

Team Members	Responsibilities
Name: Josh Esquibel Title: Plant Manager Phone: 719-648-3490	• Implementing, maintaining and revising the SWMP • Advise Martin Marietta Environmental Engineer of facility changes • Conduct or oversee facility BMP inspections • Ensure employee training
Name: John Anderson Title: VP/GM Phone: 720-245-6400	• Review and certify plan
Name: Beth Haake Title: Environmental Engineer - SWMP Administrator Phone: 720-249-7447	• Develop plan and maps • Update plans as informed of changes • Assist in implementation, maintenance. and revisions of the SWMP at the facility • Conduct employee training • Develop BMPs for regional stormwater management • Manage any significant release of pollutants

5.3 Materials Handling and Spill Prevention

For each area or activity that poses the possibility of spills, spill prevention and response procedures have been developed. This SWMP describes and maps all practices at the facility that minimize impacts from procedures or significant materials that could contribute pollutants to runoff. The entire property is effected by these control measures that have been implemented throughout the facilities history. The specific date in which a control measure is implemented will be documented and recorded in the SWMP. In response to a spill, the employee should also refer to the SPCC Plan which is held on site along with the SWMP.

Possible areas/materials/activities that could be pollutant spill sources are:

- Loading and unloading operations
- Outdoor storage of chemicals or equipment
- Crushing facilities
- Stockpiles
- Haul roads
- Disturbed areas

The location of these features is shown on Figure 2, and a more in-depth description of the activities and materials was provided in Section 3.

5.4 Erosion and Sediment Controls

This SWMP describes the BMPs to be applied for reducing erosion and preventing the delivery of sediment to state waters. These include structural BMPs (such as silt fences, sediment ponds, drop structures, check dams) and nonstructural BMPs (such as mulching and re-vegetation). The entire property is effected by these control measure that have been implemented throughout the facilities history. The specific date in which a control measure is implemented will be documented and recorded in the SWMP.

- Loading and unloading operations – Controlled by water sprayers, partial enclosures, limiting aggregate drop heights, water truck
- Outdoor storage of chemicals or equipment – Controlled by secondary containment of at least 110% capacity, concrete pads, container fill alarms, training
- Crushing facilities – Controlled by water sprayers, partial enclosures, limiting aggregate drop heights
- Stockpiles – Controlled by site grading, settling ponds, berming, seeding, mulching, water sprayers, water truck
- Haul roads – Controlled by water truck, site grading, berming, chemical dust suppressants
- Disturbed areas – Controlled by grading, berming, settling ponds, vegetative strips, rip rapping, check dams, seeding, mulching, erosion control blankets, rock socks

5.5 Other Pollution Prevention Measures

The specific date in which a control measure is implemented will be documented and recorded in the SWMP on a separate tracking form. The list below includes improvements that have been made as a long-term solution for dust suppression as well as track out and discharge concerns.

5.6 Preventive Maintenance

The facility has implemented a preventive maintenance program to ensure that stormwater management devices and structures (e.g., settling basins or berms) are inspected and tested accordingly, to prevent conditions that could lead to breakdowns or failures and, in turn, unwanted discharges of pollutants to surface waters. The specific date in which a control measure is implemented will be documented and recorded in the SWMP on a separate tracking form

Daily inspections of all storage and activity areas are conducted as part of operations daily routine. Comprehensive inspections are completed as required based on activity at the facility (see Section 8 for additional details). At a minimum, Inspections include the following:

- Integrity of diesel and gasoline storage tanks and secondary containment
- Integrity of perimeter berms and truck wash out areas
- Fuel spills in diesel fueling area, and material spills in the silo area and mixer area
- Open aggregate storage bins
- Air and oil leaks on machinery and equipment
- Belts, pulleys, rollers, and gates on plant equipment

Cleaning and maintenance is performed as needed and in response to inspection results. Records of these inspections are available through the plant manager or another member of the facility SWMP Administration Team.

Back-up practices are in place should a runoff event occur while a control measure is off-line.

A list of devices inspected, inspection and cleaning frequencies, and items for special consideration are listed below:

Management Device	Inspection Frequency	Cleaning Frequency	Potential Failures to Observe Closely
Hydrocarbon tanks	Monthly	As needed	Adequate containment
Hydrocarbon secondary containment	Monthly	As needed	Adequate containment
Catch basins	As needed	As needed	Insufficient capacity
Settling ponds	As needed	As needed	Insufficient capacity
Additive storage	Daily	As needed	Adequate containment
Containment devices (berms, ditches, etc.)	As needed	As needed	Adequate containment
General plant conditions	Daily	As needed	n/a
Perimeter erosion	As needed	As needed	Breach
Structural BMPs	Monthly	As needed	Adequate containment/breach
Vehicles	Weekly	As needed	Leaks
Material Handling Equipment	As Needed	As needed	Leaks

5.7 Good Housekeeping

This SWMP identifies good housekeeping procedures that are utilized facility wide. Good housekeeping involves a clean, orderly facility, including: cleaning and maintenance schedules, trash collection and disposal, and grounds keeping. The specific date in which a control measure is implemented will be documented and recorded in the SWMP on a separate tracking form

Careful material storage practices have been implemented. Housekeeping includes prevention and/or reduction of spilled aggregate, and other particulate material and watering of internal roads and the application of chemical dust suppressants as needed to control fugitive dust.

Principal good housekeeping procedures are as follows:

- The material inventory is kept up to date, and all containers are labeled with the name and associated hazards.
- Safety data sheets (SDS) are available on site or through an online database to ensure that staff is aware of hazards and pollution potential.
- Routine cleanup operations are ongoing and scheduled to ensure that the storage areas and maintenance areas are clean and orderly.
- Good housekeeping, including cleanup procedures and disposal requirements, are incorporated into employee training.
- Solid waste receptacles are available on site and are emptied regularly.

5.8 Identification of Discharges Other than Stormwater

The stormwater conveyance system at the facility has been evaluated for the presence of discharges other than stormwater, such as sanitary waste, or process water of any kind. A number of discharges other than stormwater may not require a Colorado Discharge Permit System (CDPS) Industrial Wastewater Discharge permit, and are considered Allowable Non-Stormwater Discharges. The specific date in which a control measure is implemented will be documented and recorded in the SWMP on a separate tracking form

The entire property was both driven and walked by Martin Marietta staff on December 2018. The presence of stormwater and process water was evaluated and observed. Specifically, mine drainage including groundwater, natural springs and runoff water was evaluated. Both stormwater and process water have the potential to leave the property. Process Water Outfalls 001, 002, and 003 were observed along with stormwater Outfalls 004, and 005.

Water stored and applied at the facility for dust abatement is periodically utilized in the stockpile yard and on the access roads to suppress fugitive dust. Water for dust suppression is not applied in excess amounts that would result in an off-site discharge of liquids. Dust abatement is not necessary during precipitation events; therefore, no non-stormwater at the facility is intermingled with stormwater runoff. Water and other liquids utilized in other peripheral uses and in the production of aggregate are contained within the plant area. Any mechanical failure with the potential for surface release would be addressed through the facilities' spill response and emergency response protocols. This would include free liquids being contained and adsorbed, and properly disposing of absorbents

Type of Discharge	No Discharge	Permitted Process Water	Unpermitted	Exempt	Control Measures
Transport discharge	X				
Equipment wash water	X				
Dust control (roads)	X				
Irrigation return flows				X	
Other agricultural discharge				X	
Firefighting discharges				X	
Foundation draining (SUMP)				X	
Springs				X	
Dewatering		X			
Other					

6 BMP IMPLEMENTATION AND DESIGN STANDARDS

According to the General Permit, facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic, and pollution control practices. BMPs implemented at the facility are designed to provide control of all potential pollutant sources associated with facility activity to prevent pollution or degradation of state waters.

All BMPs will meet the implementation and design standards outlined in the *Urban Storm Drainage Criteria Manual, Volume 3, Best Management Practices*, originally published by the Urban Drainage and Flood Control District of Denver, Colorado, in September 1992 and updated in November 2010.

Pollution Prevention BMPs

- Regular clean-up, collection and containment of debris in storage areas – minimize exposure of manufacturing, processing and material storage areas to rain, snow, snowmelt and runoff by either locating industrial materials and activities inside or protecting them with storm resistant covers.
- Spill control – including regular inspection and repair of equipment and systems that may leak, spill or release pollutants; as well as monitoring, replacement and repair of control measures.
- Secondary Containment – Prevent spills and leaks from contacting soil and possibly discharging
- Employee training

Treatment BMPs

- Use water truck to wet haul roads
- Water sprayers – to reduce dust and particulates during plant operations
- Settling ponds – divert, infiltrate, reuse, and contain stormwater runoff to minimize pollutants in the facility discharge
- Partial Enclosures – Prevents windblown particulates from entering water sources.
- Limiting Aggregate Drop Heights - Prevents windblown particulates from entering water sources.
- Chemical Suppressants - Prevents windblown particulates from entering water sources.
- Overfill Alarms – Prevents tanks from being overfilled during product delivery (diesel, Gasoline)

Source Reduction BMPs

- Diversion dikes and berms (site grading) –vegetated swales and natural depressions can reduce in-stream impacts of erosive flows. Dikes, curbs and berms can be used for discharge diversions.
- Erosion and sediment controls – stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize the onsite erosion and sedimentation.
- Vegetative covers – minimize impervious areas and infiltrate runoff on-site into the retention pond can reduce runoff and improve groundwater recharge and streams base flows in local streams
- Conserving and/or repairing riparian buffers will help protect streams from stormwater runoff and improve water quality
- Prevent or minimize discharge of spilled, aggregate and settled dust into stormwater.
- Seeding – Increase vegetative cover of inactive or reclaimed areas.
- Mulching – Aids in preventing seeds from blowing away and provides additional moisture allow seeds to root.
- Rip Rap – Dissipates water flow velocity allowing sediment to fall from water prior to discharge
- Check Dams - Dissipates water flow velocity allowing sediment to fall from water prior to discharge

- Rock Socks - Dissipates water flow velocity allowing sediment to fall from water prior discharge. Also prevents erosion.
- Erosion Control Blankets – Protects un-vegetated slopes from direct precipitation and runoff thus protecting from erosion.

7 CONSISTENCY WITH OTHER PLANS

The provisions of this SWMP are consistent with the requirements of the facility's SPCC plan and with all provisions of the facility-specific certifications under the revised General Permit (COG-500325).

8 FACILITY INSPECTIONS

In addition to the inspections necessary to comply with the preventive maintenance program requirements described in Section 5.6, qualified personnel conduct comprehensive inspections of the stormwater management system.

Comprehensive inspections performed by qualified individuals, record keeping and internal reporting are essential activities under the SWMP and are outlined below. All records and reports are maintained with the plan at the facility's management office.

Qualified personnel shall make a comprehensive inspection of the stormwater management system at least twice per year in the spring and fall. These comprehensive inspections must be documented and summarized in the Annual Report.

Material handling areas, disturbed areas, areas used for material storage that are exposed to precipitation, and other potential sources of pollution identified in the SWMP in accordance with the permit shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Structural stormwater management measures, sediment and control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.

Any repairs or maintenance needs identified by the inspection shall be completed immediately. Based on the results of the inspection, the description of potential pollutant sources and pollution prevention measures identified in the SWMP shall be revised as appropriate. The SWMP shall be revised as appropriate as soon as practicable after the inspection. Such revisions to the SWMP shall provide for implementation of any changes to the SWMP in a timely manner.

A report summarizing the scope of the inspection, personnel completing the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWMP, and actions taken as described above shall be made and retained as part of the SWMP for at least 3 years. The report shall be signed by a SWMP Administrator.

Sampling Schedule for Inspection:

Sampling is completed quarterly for all stormwater outlets and bimonthly for both process water outfalls.

9 SWMP AVAILABILITY

Upon request, and within time frames specified in the request, the facility will submit a copy of the SWMP to the Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment (CDPHE); the Colorado Division of Reclamation, Mining, and Safety (CDRMS) (formerly the Division of Minerals and Geology [DMG]); and/or the U.S. Environmental Protection Agency (EPA); and to any local agency approving sediment and erosion plans or stormwater management plans. If submittal of the SWMP is required to any of these entities, the facility will include a signed certification in accordance with "signatory and Certification Requirements" listed in the General Permit, certifying that the SWMP is complete and meets all permit requirements.

The SWMP is also considered public report that shall be available to the public under Section 308(b) of the CWA. The facility will make this SWMP available to members of the public upon request. The facility reserves the right to claim any portion of a SWMP as confidential in accordance with 40 *Code of Federal Regulations* (CFR) Part 2.

10 SWMP ADMINISTRATIVE REQUIREMENTS

10.1 SWMP PREPARATION AND IMPLEMENTATION

A certified version of this SWMP was submitted when the facility applied for coverage under the General Permit. It will be updated as appropriate (see Section 10.3).

10.2 SWMP RETENTION

The SWMP is maintained by the facility and located at the Parkdale Quarry management office. A copy of the SWMP will also be maintained at the regional Denver West office.

10.3 SWMP REVIEW/CHANGES

10.3.1 Division Review

The facility will provide the SWMP to the Division upon request. If notified by the Division that the SWMP does not meet one or more of the minimum requirements of the General Permit, the facility will make changes to the SWMP to include the requested changes and submit the revised SWMP to the Division within 30 days.

10.3.2 Permittee Review/Change

The facility will amend the SWMP whenever a change occurs in design, construction, operation, or maintenance that significantly affects potential for discharge of pollutants to the waters of the State, or if the SWMP proves ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with mining or quarrying activity. If existing BMPs need to be modified or if additional BMPs are necessary, the SWMP changes and implementation will be completed before the next anticipated storm in a timely manner.

- The change in design, construction, operation, or maintenance
- When the SWMP has been determined ineffective.

Amendments to the plan will be summarized in the Annual Report.

The facility will also notify the Colorado Division of Minerals and Geology (formerly the Mined Land Reclamation Division) of any significant changes at the facility resulting from implementation of the SWMP.

11 TRAINING AND EMPLOYEE EDUCATION

Training of personnel is conducted annually to educate employees, at all levels, about the components and objectives of the facility stormwater management plan. Contractors and temporary personnel are informed of site specific design features and operations annually when renewing site specific training at the facility. Training for the SWMP will typically be concurrently held with spill response training and SPCC Plan training.

The training scope will include the following topics:

Employee Training Task	Frequency of Training
Spill Prevention	Once per year
Spill Response	Once per year
Good Housekeeping Techniques	Once per year
Materials Management	Once per year
Sediment & Erosion Prevention	Once per year
Definition of Process Water	Once per year
Best Management Practices in Place and Proper Maintenance	Once per year formal, ongoing

While operations are active on site, it will be the responsibility of the on-site manager or operator to train appropriate on-site personnel to achieve required SWMP goals.

Various other types of environmental trainings are conducted for the on-site management team. Environmental Training topics are used for "tailgate" meetings to discuss site-specific environmental management. On-site managers participate in a number of internal and industry meetings where environmental pollution control, regulations, and responsibilities are discussed.

Records of personnel training conducted, including attendance, date of training, and scope of training are available at the facility management office.

12 TOTAL MAXIMUM DAILY LOAD

Segment 03 of the Upper Arkansas River Sub-basin, Arkansas River Basin is on the 303(d) list as impaired for Zinc and Cadmium with a designation of a High priority. A TMDL has not yet been developed or finalized, and therefore waste load allocations have not been made for this parameter. At such time as a TMDL is complete, this certification may be reopened, and limitations may be added. Until such time, additional monitoring and reporting at Outfall 001A for Zinc and Cadmium will be required.

13 STORMWATER MONITORING

The facility will collect samples from permitted outfalls as described in Section 13.1, monitor flow rates as described in Section 13.2, and submit an annual report as described in Section 13.3.

13.1 ROUTINE REPORTING OF DATA

Reporting of data obtained in compliance with the "Effluent Limitations and Monitoring Requirements" of the General Permit shall be on a quarterly basis. Reporting of all data obtained shall comply with the "General Monitoring, Sampling, and Reporting Requirements" of the General Permit.

Monitoring results shall be summarized for each calendar quarter and reported on the Division-approved discharge monitoring report (DMR) forms (EPA form 3320-1). The form will be submitted to the Division's Net-DMR online service no later than the 28th day of the month following the end of the quarter. If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The DMR forms will be filled out accurately and completely in accordance with requirements of this permit and the online netDMR guidance documents and applicable trainings. . They will be electronically signed and submitted by an authorized member of the SWMP Administrative Team (see Section 5.2). Schedules and procedures for sampling are as follows:

Sampling Location	Pollutant Parameters to be Sampled	Monitoring Schedule	Numeric Limitations
Outfalls 001A, 002A, 003A	Flow, in million gallons per day, 50050	Continuous[1]	2.88 (30-day avg) Report (daily max)
	pH, (Minimum-Maximum), 00400	2 days per month	6.5 to 9.0 (daily maximum)
	Oil and grease, in milligrams per liter[2], 03582	2 days per month	10 (daily maximum)
	Total suspended solids (TSS), in milligrams per liter, 00530	2 days per month	30 (30-day average) 45 (7-day average)
	Total Flow, in million gallons, 51500	Continuous[1]	Report (Qrtr Total)
	Copper Dissolved, in ug/L, 01323	2 days per month, grab	Report (30-day average, daily max)

1 "The chronic flow limit is equal to the flow rate provided in the permit application, and will be stated on the certification. If power is not available, flow may be measured on an instantaneous basis.

2 If a visual sheen is noticed, the facility will collect a grab sample for oil and grease.

A schedule of events has been placed on Stormwater Reporting Requirements.

ICIS Code	Description	Due Data	Frequency
00308	The permittee shall submit an annual report to the division for the reporting period January 1 through December 31.	February 28	Annual (9)

The procedures used to perform the above monitoring:
Visual Monitoring
Benchmark Monitoring
Water Quality Standards Monitoring
Additional Monitoring as Required by the Division

13.2 FLOW MONITORING

A flow monitoring device has been installed on all of the facility's applicable permitted outfalls.

13.3 ANNUAL REPORT

The facility will submit an Annual Report, covering January 1 through December 31 of each year, on the overall compliance of the facility. The Annual Report will contain, at a minimum:

- The name of facility, address, phone number, and permit certification number.
- A report on the facility's overall compliance with the SWMP.
- A summary of each comprehensive stormwater facility inspection made, including date, findings, and action taken.
- Results and interpretation of any stormwater monitoring performed.

The report will be signed and certified for accuracy by the SWMP Administrator (see Section 5.2), including the certification language contained in the "Signatory and Certification Requirements" of the General Permit.

The Annual Report will be due to the Division on or before February 28 of each year, after the first full year of coverage under the permit. It will be sent to:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, CO 80222-1530

14 NOTIFICATION REQUIREMENTS

The SWMP Administrator will oversee all notifications; if the SWMP Administrator is not available, he or she will designate a member of the SWMP Administrative team as an alternate to make any necessary notifications (see Section 5.2).

All notification requirements under this section will be directed as follows:

1) **Oral Notifications, other than for spills**, during normal business hours will be to:

   Water Quality Protection Section – Industrial Compliance Program
   Water Quality Control Division
   Telephone: (303) 692-3500

2) **Spills notifications** at any time and **other notifications** after hours will be to:
   Emergency Management Program
   Laboratory and Radiation Services Division
   Telephone: (877) 518-5608

   Written notification will be to:
   Water Quality Protection Section – Industrial Compliance Program
   Water Quality Control Division
   Colorado Department of Public Health and Environment
   WQCD-WQP-B2
   4300 Cherry Creek Drive South
   Denver, CO 80246-1530

14.1 CHANGE IN DISCHARGE

The facility will notify the Division regarding changes in discharge under the following circumstances:

- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged, OR

- The alteration or addition could significantly change the facility's sludge use or disposal practices, and such alteration, addition, or change may justify application of permit conditions that differ from or are absent in the existing General Permit, including notification of additional use or disposal facilities not reported pursuant to an approved land application plan.

The facility will give advance notice to the Division of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

Whenever notification of any planned physical alterations or additions to the permitted facility is required pursuant to this section, the facility will furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge, the stream, or groundwater. If the Division notifies the facility that such new or altered discharge might be inconsistent with the conditions of the permit, facility will prepare a new or revised permit application and shall follow the procedures specified in Sections 61.5 through 61.6, and 61.15 of the Colorado Discharge Permit System Regulations.

14.2 SPECIAL NOTIFICATIONS – DEFINITIONS

Bypass: Intentional diversion of waste streams from any portion of a treatment facility.

Severe Property Damage: Substantial physical damage to property at the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. It does not mean economic loss caused by delays in production. PART II Page No. 19 Permit No. COG-500000

Spill: An incident during which flows or solid materials are accidentally or unintentionally allowed to flow or escape so as to be lost from the treatment, processing, or manufacturing system, and which may cause or threaten pollution of state waters.

Upset: An exceptional incident during which unintentional and temporary noncompliance with permit effluent limitations occurs because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

14.3 NONCOMPLIANCE NOTIFICATION

The facility will report the following circumstances **orally within 24 hours** and in **written form within 5 days** from the time it becomes aware of the following circumstances:

- Circumstances leading to any noncompliance which may endanger human health or the environment regardless of the cause of the incident.
- Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit.

- Circumstances leading to any upset or spill which causes an exceedance of any effluent limitation in the permit.
- Daily maximum violations for any of the pollutants limited by Part I.A of this permit and specified as requiring 24-hour notification. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

The facility will report instances of non-compliance which are not required to be reported within 24 hours when DMRs are submitted (see Section 13.1).

In all cases, written notifications will include the following information:

- A description of the discharge and cause of noncompliance.
- The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance.
- Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

14.4 OTHER NOTIFICATION REQUIREMENTS

The facility will notify the Division, in writing, 30 days in advance of a proposed transfer of permit as provided in the "Transfer of Ownership or Control" requirements in the General Permit.

The facility will notify the Division as soon as it knows or has reason to believe any of the following General Permit items are applicable to the facility:

- That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the General Permit, if that discharge will exceed the highest of the following "notification levels":
    - A concentration of 100 micrograms per liter (µg/L) for constituents not otherwise specified
    - 200 µg/L for acrolein and acrylonitrile
    - 500 µg/L for 2.4-dinitrophenol and 2-methyl-4.6-dinitrophenol
    - 1 milligram per liter (mg/L) for antimony
    - Five times the maximum concentration value reported for any pollutant in the permit application in accordance with Section 61.4(2)(g). PART II Page No. 20 Permit No. COG-500000
    - The level established by the Division in accordance with 40 CFR 122.44(f).
- That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant not limited in the General Permit, if that discharge will exceed the highest of the following "notification levels":
    - A concentration of 500 µg/L for constituents not otherwise specified
    - 1 mg/L for antimony

- Ten times the maximum concentration value reported for that pollutant in the permit application
- The level established by the Division in accordance with 40 CFR 122.44(f).

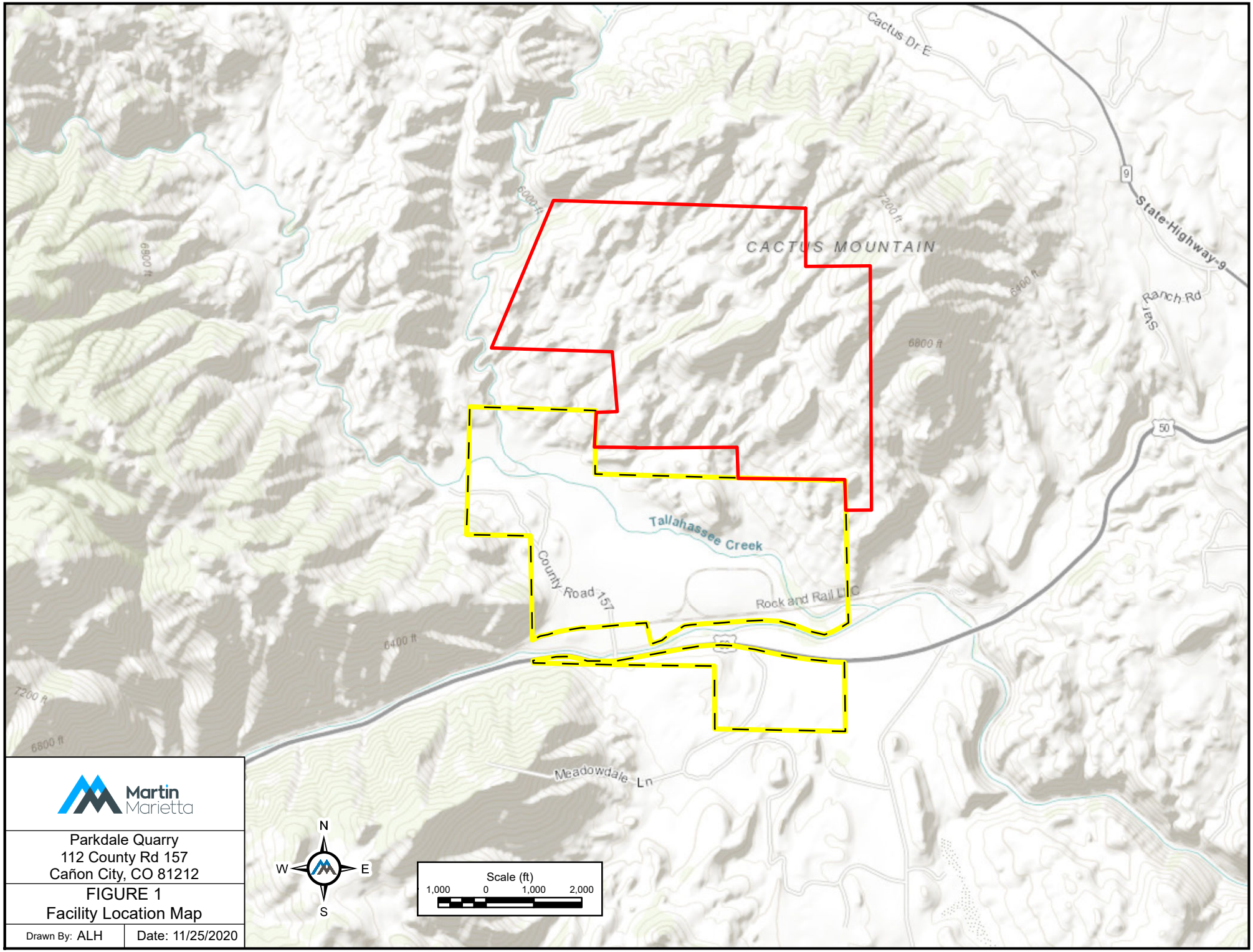
Reporting forms are included in Appendix B.

APPENDIX A

FIGURES

FIGURE 1 FACILITY LOCATION

FIGURE 2 FACILITY LAYOUT

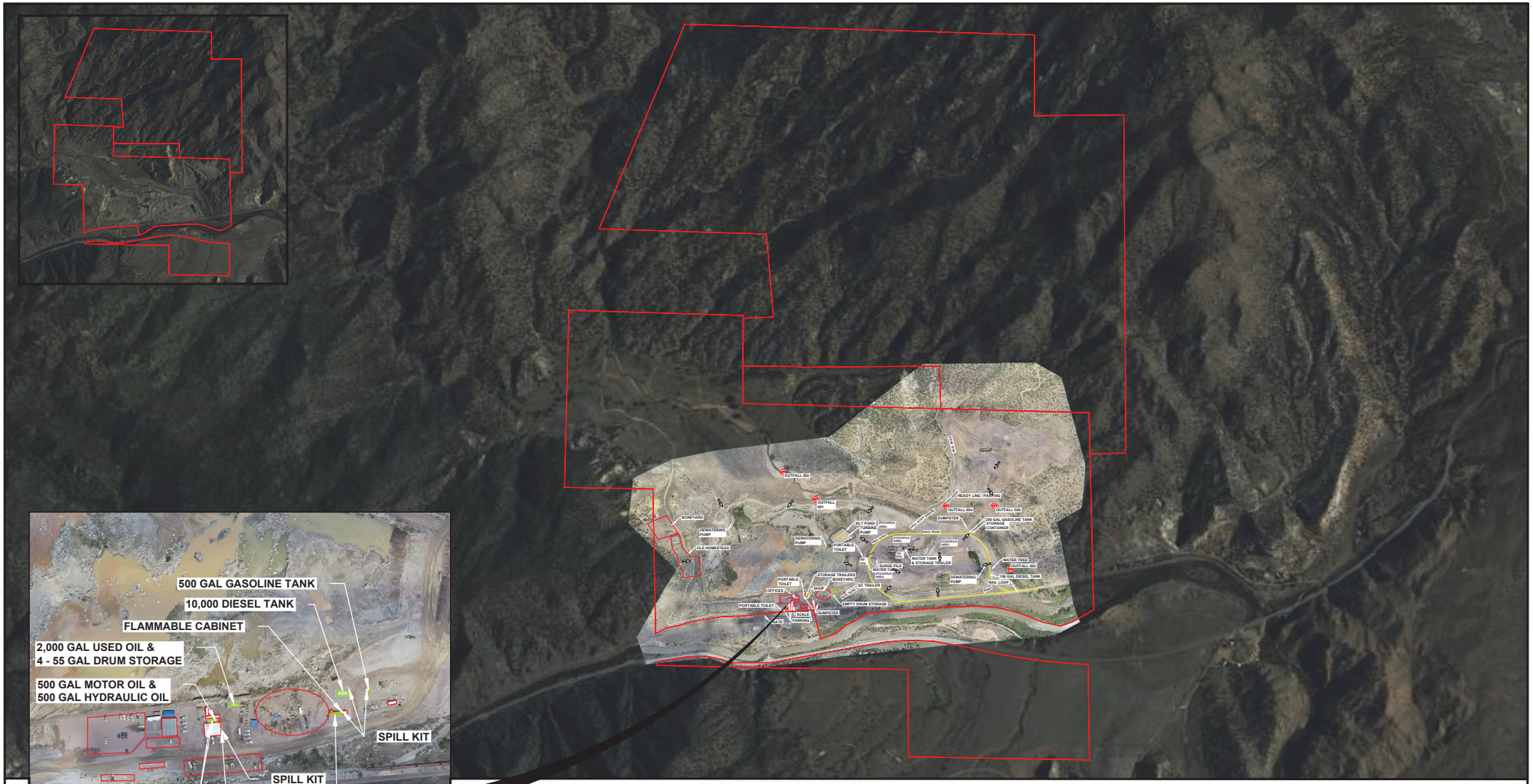


Martin Marietta

Parkdale Quarry
112 County Rd 157
Cañon City, CO 81212

FIGURE 1
Facility Location Map

Drawn By: ALH | Date: 11/25/2020



PARKDALE QUARRY
112 Country Road 157
Cañon City, Colorado 81212

DESIGNED BY: ---
DRAWN BY: ALH
DATE: 11/25/2020

FIGURE 2
FACILITY MAP

APPENDIX B

REPORTING FORMS