

Oil Spill Contingency Plan  
Red Mesa Gas Field  
Marvel, CO

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## 1.0 INTRODUCTION

### 1.1 Purpose and Scope

The Oil Spill Contingency Plan is prepared in accordance with 40 CFR 112.7(d) to address areas of the facility where secondary containment is impracticable, as documented in the associated facility Spill Prevention, Control, and countermeasures (SPCC) Plan.

The purpose of this Oil Spill Contingency Plan (Contingency Plan) is to define procedures and tactics for responding to potential discharges of oil into navigable waters or adjoining shorelines of the United States that originate specifically from, separators, compressor skid, sumps, truck transfer areas, or flow lines at Red Mesa Gas Field. The contingency plan would be implemented whenever a discharge of oil has reached or threatens navigable waters or adjoining shorelines.

The objective of procedures described in this contingency plan is to protect the public, Red Mesa Gas personnel, and other responders during oil discharges. In addition, this contingency plan is intended to minimize damage to the environment, natural resources, and facility installations from a discharge of oil. This contingency plan complements the prevention and control measures presented in the SPCC Plan by addressing areas of the facility that have inadequate secondary containment and impacts that may result from a discharge from these areas. The facility implements a detailed and stringent flow line maintenance program that prevents leaks from the primary system (in this case piping). As stated above areas lacking containment at the Field include:

- Separators that separator produced liquids, (water and oil) from the gas.
- Compressor skids sumps that store water contaminated with compressor oil prior to being pumped to the product tanks.
- Truck transfer areas where produced liquids (produced oil and water are loaded from tanks to tanker trucks for removal.
- Truck transfer areas where new oil is unloaded from delivery trucks to the compressor lube oil tanks and reservoirs.
- Flow lines that run from the wellhead to the separators and (in some cases) from the separator to the storage tanks.

This contingency plan follows the content and organization of 40 CFR Part 109 and describes the distribution of responsibilities and basic procedures for responding to an oil discharge and performing clean up operations.

## 1.2 Resources at Risk

### 40 (CFR Part 109.5(b)(1)

The Field (the facility) consists of all flow lines, and gathering systems and equipment for handling produced gas and associated liquids from this gas production field. The produced gas is transported to sales via pipeline. The produced oil is transported for sale via truck. The produced water is transported via truck to an offsite disposal facility.

The Field is located in the vicinity of Marvel, Colorado. The office for the Field is located in Marvel, Colorado. All of the roads in the facility are of improved dirt construction.

The Field is located in the LaPlata River watershed. Any oil flowing from the facility would flow down any one of the numerous unnamed arroyos to the LaPlata River, approximately 3 miles away.

In the event of an uncontrolled discharge from areas lacking adequate secondary containment and in amounts large enough to leave the pad site, discharged fluids would follow the direction of the flows identified in appendix B of the SPCC plan from the site and then follow the surrounding the natural topography.

The LaPlata River is potentially used to supply drinking water for several homesteads and for irrigation of crop land. In addition the LaPlata River provides habitat for several aquatic species and is used for recreational purposes (north of the possible drainage area).

There are no residences within the vicinity of the facility that would be anticipated to be impacted by the worst case discharge scenario. This is due to the magnitude of the worst case spill scenario. The Field is predominately a gas production operation. Therefore, produced oil amounts are not as significant as for an oil production facility.

Red Mesa Gas will cooperate with the State of Colorado Oil and Gas Conservation Commission and the Laplata County Local Emergency Planning Committee (LEPC) to provide appropriate warnings in the event of a discharge that could affect the public health and safety.

## 1.3 Risk Assessment

### 40 CFR Part 109.5(c)(2)

The well sites are visited on a regular basis by field operations personnel. Some of the separators, compressor skids and flow lines do not have secondary containment because such containment is impracticable. The transport truck loading facilities do not have secondary containment.

Tanker trucks are used to remove produced oil and water from the well sites. The worst discharge from a truck transfer of oil. The tanker trucks that are used typically have a 120 barrel tank with an 80 barrel trailer. The trucks have an on board pumping system that is used to load out the oil.

The worst case discharge from a truck transfer would be from a hose rupture. Should a failure of a transfer hose occur, the discharge would be gravity fed from the tank truck and produced oil tank. The oil would flow until the truck driver or Red Mesa personnel were able to close the valves at the bottom of tank truck and at the base of the produced oil tank. This discharge could be as much as 25 % of the produced oil tank contents or approximately 3000 gallons. All oil transfers are observed by the truck driver and/or Red Mesa personnel.

Flow lines from the wellhead to the separator may be above ground, underground or a combination of both. The flow lines for the separator to the oil storage tank may be above ground, underground or a combination of both. There is currently electronic monitoring of flow line pressures during the day time hours. During the evening hours there is no one on duty to monitor flow line pressures. In the event of a flow line rupture, it may be up to 16 hours before the rupture is identified. The oil storage tanks have autonomous high level shut down systems but no low level alarm system is in place. If high level shut down systems are not in place, plans are in place to install such systems.

Regardless of the discharge scenario, any discharge of the sizes mentioned above will probably be absorbed into the soil. The soils at the Field include silt loam, sand loam and clay loam. Any significant discharge would be absorbed into the soil. If the spilled material was not completely absorbed in to the soil, the residual of the discharge may reach adjacent drainage arroyos or pasture land.

### **1.4 Response Strategy**

Red Mesa Gas field operations personnel and contractors are equipped and trained to respond to certain “minor discharges” confined within the facility. Minor discharges can generally be described as those where the quantity of product discharges is small, the discharge material can be easily stopped and controlled, the discharge is localized, and the product is not likely to seep into groundwater or reach surface water or adjoining shorelines. Procedures for responding to these minor discharges are covered in the SPCC plan.

This contingency plan address all discharge incidents, including those that affect navigable waters or during which oil cannot be safely controlled by facility personnel and confined within boundaries of the facility. Response to such incidents may necessitate the assistance of outside contractors or other responders to prevent imminent impact to navigable waters.

## **2.0 SPILL DISCOVERY AND RESPONSE**

### **2.1 Distribution of Responsibilities.**

#### **40 CFR Part 109(a), 109 (b)(2), 109.5(d)(2)**

Red Mesa Gas has the primary responsibility for providing the initial response to oil discharge incidents originating from its facility. To accomplish this, Red Mesa Gas has designated the SPCC Coordinator, as the qualified oil discharge Response Coordinator (RC) in the event of an oil discharge.

The SPCC Coordinator plays a central coordinating role in any emergency situation. The SPCC Coordinator has the authority to commit the necessary services and equipment to respond to the discharge and to request assistance from the LaPlata LEPC or other necessary responders as appropriate. The SPCC Coordinator and backups are identified in the emergency contact list in the SPCC plan.

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The SPCC Coordinator will direct notifications and initial response actions in accordance with training and capabilities. In the event of a fire or emergency situation that threatens the health and safety of those present at the site, the SPCC Coordinator will direct evacuations and contact the necessary authorities.

In the event of an emergency involving outside response agencies, the SPCC Coordinator's primary responsibility is to provide information regarding the characteristics of the material and equipment involved and to provide access to Red Mesa Gas resources as requested. Although not anticipated to be necessary due to the secluded nature of the facility locations, the SPCC Coordinator will take the measures necessary to control the flow of people, emergency equipment, supplies and obtain the support of the LaPlata LEPC. These controls may be necessary to minimize injuries and confusion.

Finally, the SPCC Coordinator serves as the coordinator for communications by acquiring all essential information and ensuring clear communication of information to emergency response personnel. The SPCC Coordinator has access to reference material at the field and regional offices either as printed material or on computer files that can further assist response activities.

Whenever circumstances permit, the SPCC Coordinator will provide assessments and recommendations to Red Mesa Gas senior management.

In the event that the SPCC Coordinator is not available, the responsibility and authority for initiating a response to a discharge rests with the most senior Red Mesa Gas employee on site at the time of the discharge. This person will remain in charge until relieved by a person of higher authority.

## 2.2 Response Activities

### 40 CFR Part 109.5(d), 109.5(e)

In the event of a discharge, the first priority is to stop the product flow and to shut off all ignition sources, followed by the containment, control and mitigation of the discharge. These actions are to be undertaken if they can be done so without endangering personnel. The contingency plan breaks actions to be performed to respond to an oil discharge into different phases, described in greater detail in the tables below.

### 2.2.1 Discharge Discovery and Source Control

**Minor Discharge:** Minor discharges would include a small volume over fill during a truck transfer operation or a flow line or separator leak. The minor discharge would be discovered by a Red Mesa Gas employee during a routine visit to the well site. The production equipment is visually examined during routine visits and is formally inspected once per month per Section 3.4.2 of the SPCC plan.

**Major Discharge:** A more severe and sudden discharge would result from the rupture of the transfer hose during truck transfer operations or a ruptured flow line. Red Mesa Gas personnel or the truck driver will immediately close the transfer valves at the truck and produced oil tanks should a hose rupture. In the event of a flow line rupture, the extraction well will be shut in so that no further produced liquids are directed to the flow line. The discharge would be detected during the regular visits to the well site by Red Mesa Gas personnel. The normal amount of time until a major discharge is detected would be less than 24 hours.

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Actions and notifications specified in the Quick Reference, section 2 and appendix F of the SPCC Plan will be undertaken immediately upon discovery or reportable discharges. These actions and notifications are further summarized below.

### For Individual that Discover a Discharge:

Completed	Actions
	Immediately report the discharge to the SPCC Coordinator or field supervisor providing the following information <ul style="list-style-type: none"> <li>• Exact location</li> <li>• Material involved</li> <li>• Quantity involved</li> <li>• Direction of flow and environmental conditions</li> <li>• Special circumstances that may affect flow</li> <li>• Any injuries</li> </ul>
	Turn off all sources of ignition
	Perform the following as applicable to the discharge <ul style="list-style-type: none"> <li>• Close flow line valves</li> <li>• Close transfer valves</li> <li>• Shut in the well providing flow to the flow line</li> </ul>
	Locate the flow line break
	If safe to do so, isolate the affected section of piping by closing off the closest valve upstream and downstream from the break

### 2.2.2 Assessment and Notifications

#### For Individual that Discovers a Discharge (Investigation and Evaluation) and SPCC Coordinator Notification:

Completed	Actions
	Investigate the discharge to assess the actual or potential threat to human health or the environment: <ul style="list-style-type: none"> <li>• Determine the location of the discharge relative to receiving bodies of water</li> <li>• Determine the quantity of spilled material</li> <li>• Determine any relative environmental conditions (rain etc)</li> <li>• Determine if there are any contributing factors such as a fire or explosion hazard</li> <li>• Determine if there are any sensitive receptors downstream (community drinking water supplies, irrigation pumping stations)</li> </ul>
	Request outside assistance from local emergency responders as needed
	Evaluate the need to evacuate facility and/or surrounding area
	Notify the State authorities and the LEPC to determine if community evacuation is necessary
	Notify immediately in this order <ul style="list-style-type: none"> <li>• COGCC hotline</li> <li>• LaPlata County LEPC</li> <li>• Southern Ute Tribal Council (if tribal land is impacted).</li> <li>• National Response Center – If material is flowing into active waterway</li> </ul>
	Communicate with neighboring property owners regarding the discharge and

	actions taken to mitigate the damage
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### 2.2.3 Control and Recovery

The SPCC Coordinator directs the initial control of the oil flow by the oil spill response contractor. The actions taken will depend on whether the oil has reached water or is still on land. All efforts will be made to prevent the oil from reaching water.

#### If the oil has not yet reached water:

Completed	Actions
	Deploy sand bags and absorbent socks down gradient from the oil
	Implement land based actions such as digging temporary containment ditches if appropriate to prevent the flow off of the well site
	Deploy absorbent sock and absorbent material along any adjacent and down gradient ditches that may lead to stream or flowing water

#### If the oil has reached water:

Completed	Actions
	Contact oil spill response contractor
	Deploy floating booms immediately downstream from release point if practical
	Control oil flow on the ground by placing absorbent sock and material in path of oil flow or erect physical barriers as possible

### 2.2.4 Disposal of Recovered Product and Contaminated Response Material:

The SPCC Coordinator ensures that all contaminated materials classified as hazardous waste are disposed of in accordance with all solid and hazardous waste regulations.

Completed	Actions
	Place any recovered product that can be recycled into oil storage tanks to be sold as appropriate
	Dispose of recovered product not suitable for on-site recycling with the rest of the waste collected during the response efforts
	Collect all debris in properly labeled waste containers (impervious bags, drums or buckets)
	Dispose of contaminated material in accordance with all applicable solid and hazardous waste regulations using a licensed waste hauler and disposal facility, after appropriate characterizing the material for collection and disposal
	Dispose of all contaminated response material from the discharge

### 2.2.5 Termination

The SPCC Coordinator ensures that cleanup has been completed and that the contaminated area has been treated or mitigated according to applicable regulations and tribal, local, state and or federal cleanup action levels. The SPCC Coordinator collaborates with the tribal, local, state and federal authorities regarding the assessment of damages.

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Completed	Actions
	Ensure that all repairs to the defective equipment or flow line section have been completed.
	Review circumstances that led to the discharge and take all necessary precautions to prevent a recurrence.
	Evaluate the effectiveness of the response activities and make adjustments as necessary to response procedures and personnel training.
	Carry out personnel and contractors debriefings as necessary to emphasize prevention measures or to communicate changes in operations or response procedures.
	Submit any required follow up reports to the authorities.  <i>(Note: 40 CFR 112.4(a) in the case where the oil discharge (as defined in 40 CFR 112(b)) was greater than 1000 gallons or the second discharge (as defined in 40 CFR 112.1(b)) of 42 gallons of more within any 12 month period, the SPCC coordinator is responsible for submitting the required information within 60 days to the EPA Regional Administrator following procedures outlines in Section 2.1.2 of the SPCC Plan.)</i>

### 2.3 Discharge Notification

Instructions and phone numbers for reporting a discharge to the National Response center and other federal, state and local authorities are provided in the Emergency Phone List and Appendix F of the SPCC Plan. Any discharge to water must be reported immediately to the National Response Center. The SPCC Coordinator must ensure that details of the discharge are recorded on the Spill/Release Report provided in Appendix F of the SPCC Plan.

Although not anticipated for the magnitude of potential spills, the National Response Center will notify the On-Scene Coordinator (OSC) who may draw on the resources of the EPA Emergency Response Team, scientific support coordinators, and/or the regional response team. In addition, the National Response Team will provide support if needed.

If the discharge qualifies under 40 CFR Part 112 as discussed above, the SPCC Coordinator is responsible for ensuring that all pertinent information is provided to the EPA Regional Administrator.

## **3.0 RESPONSE RESOURCES AND PREPAREDNESS ACTIVITIES**

### **3.1 Equipment, Supplies, Services, and Manpower**

#### **40 CFR Part 109.5(c)(1), 109.5(c)(2), 109.5(c)(3), 109.5(d)(2) and 109.5(d)(3)**

Appendix A contains Red Mesa Gas's written commitment to provide manpower, equipment and materials as needed in the event of a discharge. Appendix B contains the Self Certification of Oil Spill Equipment Deployment/Exercise (USCG OSRO Certification No 0085) for Red Mesa Gas's emergency response contractor.

Spill response equipment is kept in the truck of each lease operator. The normal equipment that can be found in a lease operator's truck includes:

- Shovel
- Gloves
- Absorbent socks
- Absorbent pads

This material is sufficient to respond to most minor discharges occurring at the facility and to initially contain a major discharge while waiting for additional material or support from outside agencies or contractors. Addition stock piles of absorbent pads and socks are located at various well sites around the field. The inventory is verified on a regular basis during facility inspections and is replenished as necessary. Addition stock piles of absorbent pads and socks are located at various well sites around the field.

In addition, Red Mesa Gas relies on the response equipment available from their emergency response contractor and associated subcontractors. Local subcontractors to the emergency response contractor will have additional response equipment. The additional material may include empty storage drums, absorbent socks and booms, containment booms, sand bags, personal protective equipment, etc. It also includes all necessary communications equipment to coordinate response activities (e.g. cell phones). The Field office will be used as the main response center with satellite response center set up in the field as necessary. The location of a satellite response center may be dictated by the cell phone coverage in the area.

Red Mesa Gas relies on their emergency response contractor and their network of subcontractors for immediate local and trained response. As part of the SPCC plan training, the Red Mesa Gas SPCC Coordinator and alternates are trained on their discharge discovery, response, and notification responsibilities. All of these employees are familiar with the facility layout, location of spill response equipment and staging areas, and response strategies, and with the SPCC and Oil Spill Contingency Plans for this facility due to the regular presence at the facility.

As stated previously, to respond to a larger discharge and to ensure the removal and disposal of cleanup debris, Red Mesa Gas has established an agreement with an emergency response contractor, Envirotech (Farmington, NM), who will be the primary response/cleanup contractor. These contractors have immediate access to an assortment of equipment and materials, including mechanical recovery equipment for use on water and land, small boats, floating booms, and large waste containers. Each contractor has sufficient response equipment to contain and recover the

maximum possible discharge and is able to respond in a timely manner via their network of local subcontractors. Red Mesa Gas has informed the contractor of potential worst-case discharge and associated response capacity needs. Red Mesa Gas will inform the contractor of any changes to these discharge scenarios or needs.

### **3.2 Access to Receiving Water Body**

#### **40 CFR Part 109.5(d)(5)**

Should a discharge reach surface water, the response strategy consist of: (1) Deploying booms and other response equipment at various points downstream from the oil plume to prevent its migration; and (2) deploying booms as a protective measure for any irrigation waster intakes and other downstream sensitive receptors.

Local emergency response subcontractors are aware of vehicular access to potentially impacted surface waters to ensure that response equipment can be effectively deployed to contain oil at various points along waterways and prevent further migration of the oil. Coordination with tribal authorities and the LaPlata County LEPC will be undertaken as necessary to stage necessary equipment at waterway access points.

### **3.3 Communications and Control**

#### **40 CFR Part 109.5(b)(3) and 109.5(d)(3)**

A central communication center will be established at the Field field office in the event of a discharge. This office is equipped with a variety of fixed and mobile communication equipment (telephone, fax, cell phones and computers) to ensure continuous communications with Red Mesa Gas management, responders, authorities, and other interested parties.

Communications equipment includes:

- **Cell phones:** Each lease operator, member of management and the SPCC Coordinator are provided with a cell phone. The SPCC coordinator and alternates can be reached by cell phone at any time.
- **Additional equipment:** Red Mesa Gas's emergency response contractor has a central contact phone number to provide round-the-clock response. The contractor maintains communication equipment to ensure coordinated response.

The SPCC Coordinator is responsible for communicating the status of the response operations and for sharing relevant information with involved parties, including tribal, local, state, and federal authorities.

In the event that local response agencies, state authorities or federal On-Site Coordinator (OSC) assumes incident command, the SPCC Coordinator will function as the facility representative in the United Command structure.

### **3.4 Training Exercises and Updating Procedures**

#### **40 CFR 109.5(d)(1)**

As stated previously and via the SPCC plan training, Red Mesa Gas has established and maintains an ongoing training program to ensure that personnel responding to oil discharges are properly trained and that all necessary equipment is available to them. The program includes on-the-job training on the proper deployment of response equipment. The SPCC Coordinator is responsible for implementing and evaluating employee preparedness training.

Following a response to an oil discharge, the SPCC Coordinator will evaluate the actions taken and identify procedural areas where improvements are needed. The SPCC Coordinator will conduct a briefing with field personnel, contractors and local emergency responders to discuss lessons learned and will integrate the outcome of the discussion in subsequent SPCC briefings and employee training. As necessary, the SPCC Coordinator will amend this contingency plan or SPCC plan to reflect changes made to the facility equipment and procedures.

## Appendix A

### **Written Commitment of Manpower, Equipment and Materials** **40 CFR Part 112.7(d)(2)**

In addition to implementing the preventive measures described in this plan, Red Mesa Gas will also specifically:

- In the event of a discharge:
  - Make available all trained field personnel to perform response actions
  - Collaborate fully with tribal, local state and federal authorities on response and cleanup operations.
- Maintain all on-site oil spill control equipment described in this plan and in the associated Spill Prevention, Control and Countermeasures Plan.
- Maintain all communications equipment in operating condition at all times.
- Ensure that staging areas to be used in the event of a discharge are accessible by field vehicles.
- Review the adequacy of on-site and third party response capacity with pre-established response/cleanup contractors on an annual basis and update the response /cleanup contractor list as necessary.
- Maintain formal agreements/contracts with response and cleanup contractors who will provide assistance in responding to an oil discharge and/or complete cleanup.

Authorized Facility Representative

Signature: \_\_\_\_\_

Title \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix B

### **Self Certification of Oil Spill Equipment Deployment/Exercise**

On the date(s) listed below, spill equipment was deployed and all personnel were involved in a simulated spill event.

Date(s): \_\_\_\_\_

Description of simulated event:

Personnel trained/exercised:

Agencies/contractors exercised:

Authorized Facility Representative

Signature: \_\_\_\_\_

Title \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_