

Attachment G
Storm Water Pollution Prevention Plan

Storm Water Pollution Prevention Plan

Daneros Mine



Prepared by
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January 2014

Contents	Page
1.0 INTRODUCTION	1
1.1 Storm Water Pollution Prevention Plan Requirements	1
1.2 SWPPP Organization	1
2.0 POLLUTION PREVENTION TEAM	1
3.0 DESCRIPTION OF MINING ACTIVITIES	2
4.0 DESCRIPTION OF POTENTIAL POLLUTANT SOURCES	3
4.1 Site Maps and Flow Direction	3
4.2 Identification of Potential Pollutants	4
4.3 Spills and Leaks	5
4.4 Sampling Data	5
4.5 Risk Identification and Summary of Potential Pollutant Sources	6
5.0 MEASURES AND CONTROLS	6
5.1 Good Housekeeping	6
5.2 Preventive Maintenance	7
5.3 Spill Prevention and Response Procedures	7
5.4 Storm Water Inspections	7
5.5 Employee Training	8
5.6 Record Keeping	8
5.7 Non-Storm Water Discharges	8
5.8 Sediment and Erosion Control	8
5.9 Capping	10
5.10 Treatment	11
6.0 COMPREHENSIVE SITE COMPLIANCE EVALUATION	11

APPENDICIES

Appendix A – Figures

Appendix B – UPDES General Permit for Storm water Discharges

Appendix C – Inspction Form

Appendix D – Emergency Contacts

Appendix E – Discharge Notification Form

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 gathered and evaluated 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 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 knowing violations.



Harold Roberts
 Chief Operating Officer
 Energy Fuels Resources (USA) Inc.

SITE CONTACT INFORMATION

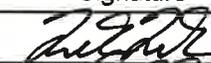
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Revision Schedule

This storm water pollution prevention plan (SWPPP) should be revised and updated to address changes in site conditions, new or revised government regulations, and additional on-site storm water pollution controls.

All revisions to the SWPPP will be documented on the SWPPP Revision Documentation Table below. The authorized facility representative who approves the SWPPP should be an individual at or near the top of the facility's management organization, such as the president, vice president, construction manager, site supervisor, or environmental manager. The signature of this representative attests that the SWPPP revision information is true and accurate. Previous authors and facility representatives are not responsible for the revisions.

SWPPP Revision Documentation Table

Number	Date	Author	Company Representative Signature
1	2/28/13	Ryan Ellis	
2	8/3/13	Ryan Ellis	
3	1/20/14	Ryan Ellis	
4			
5			
6			
7			
8			
9			
10			

1.0 Introduction

1.1 Storm Water Pollution Prevention Plan Requirements

This Storm water Pollution Prevention Plan (SWPPP) was developed consistent with the requirements of the Utah Pollutant Discharge Elimination System (UPDES) General Storm water Permit for Discharges Associated with Industrial Activity from Metal Mining (Ore Mining and Dressing) Facilities (see Appendix B for a copy of the permit requirements). When the mine is active, the SWPPP must be kept on site for use by Energy Fuels Resources (USA) Inc. and all contractors that create disturbances that may affect the quality of storm water discharges. If the mine is temporarily inactive, the SWPPP may be kept at the nearest company office.

The Plan, properly implemented, should result in the discharge of storm water to the environment without violation of Water Quality Standards.

1.2 SWPPP Organization

This plan consists of a detailed narrative section and appendices, which contain a copy of the permit and maps, forms and tables. The narrative section includes descriptions of the mining activities, potential pollution sources associated with site features, and discusses the selection of specific pollution prevention measures and controls to reduce or eliminate the threat of causing pollution. The maps and drawings show the site location, topography, and placement of best management practices (BMPs) used for pollution prevention at the mine sites.

The narrative section of this plan is organized in numbered sections around the required elements of a SWPPP listed below:

- Pollution Prevention Team
- Description of Mining Activities
- Description of Potential Pollutant Sources
- Measures and Controls
- Comprehensive Site Compliance Evaluation

2.0 Pollution Prevention Team

The Daneros Mine has a Storm Water Pollution Prevention Team (SWPPT) to ensure that the SWPPP is implemented and maintained in accordance with good engineering and management practices. This team is responsible for identifying and incorporating into the plan any potential sources of pollution that could reasonably be expected to impact the quality of storm water discharged from the sites. In addition, this team is responsible for developing, documenting, implementing, and revising management practices to reduce the potential for contamination of storm water discharges. The team members and their responsibilities are listed in the following table.

<i>Leader</i>	<i>Phone</i>	<i>Responsibilities</i>
<i>David Turk, Manager Environmental Health and Safety</i>	<i>(435) 678-2221 x 113</i>	<i>Coordinate all stages of plan implementation, evaluation, and monitoring; Coordinate employee training program</i>
<i>Members</i>	<i>Phone</i>	<i>Responsibilities</i>
<i>Harold Roberts/ Chief Operating Officer</i>	<i>(303) 628-7798</i>	<i>Signatory authority</i>
<i>Race Fisher, Area Manager</i>	<i>(970) 739-5742</i>	<i>Note any process changes; Oversee good housekeeping practices; Implement the preventative maintenance program.</i>
<i>Ryan Ellis, Environmental Engineer</i>	<i>(303) 974-2151</i>	<i>Develop the plan and prepare major plan revisions.</i>
<i>Todd Eldridge, Mine Compliance Technician</i>	<i>Cell: (435) 686-9907</i>	<i>Implement SWPPP elements; Conduct inspections; Note any process changes; Coordinate with SWPPP Team Leader regarding Plan revisions; Spill Response Coordinator.</i>
<i>Jaime Massey, Environmental Compliance Assistant</i>	<i>303-389-4167</i>	<i>Keep all records and ensure reports are submitted to regulating agencies as required. Prepare minor Plan revisions and updates.</i>
<i>Group Activities</i>		<i>Implement the SWPPP elements; Choose storm water management options.</i>

3.0 Description of Mining Activities

Energy Fuels Resources (USA) Inc.'s (Energy Fuels') Daneros Mine is an underground uranium mine that will be reopened and developed in three phases at three separate portal areas. The Daneros Mine is located in San Juan County, Utah, approximately 56 miles west of Blanding along Highway 95 (Figure 1). Figure 2 shows the 3 portal areas in relation to each other and also the general terrain of the area. The first phase consists of expanding the Daneros Portal Area. The second and third phases consist of developing the Bullseye Portal Area and South Portal Area, respectively. The maximum extent of the disturbed areas will be 7.9 acres at the Daneros Portal, 8.1 acres at the Bullseye Portal, and 37 acres at the South Portal.

Figure 3 shows the layout of the Daneros Portal Area. The existing two declines (main and ventilation portals) are used to access the underground uranium deposit and to provide ventilation for the miners. A fuel area, diesel generators and an air compressor are located immediately southwest of the portals to support underground operations. The shop is a metal building used to store maintenance supplies and perform maintenance on the mobile equipment. A mobile trailer is used as the office and propane tanks are located north of the shop. There are portable restroom facilities located at the Daneros Portal Area and therefore no septic system is required. An ore stockpile pad is located west of the portals and on the other side of the main Bullseye Canyon drainage that passes through the Daneros Portal Area. The Bullseye Canyon drainage is an ephemeral drainage, but does convey significant water flows after large storm events. Three 60-inch culverts are installed in the drainage under the mine access road to convey surface water runoff after storm events. Ore is temporarily stored on the pad until it can be hauled to the White Mesa Mill. Waste rock from the mine is also disposed of on the west side of the drainage in the Development Rock Area (DRA) as shown on Figure 3.

Figure 4 shows the Bullseye Portal Area, which has limited support infrastructure as it will be used as a second access point into the mine and a place to stockpile ore and development rock. The Bullseye Portal Area includes a fuel storage area, air compressor, generators and water tanks north of the portal. The ore stockpile pad is located immediately in front of the portal. Two DRAs, an inert material stockpile, and a topsoil stockpile are located west of the Bullseye Canyon Drainage. The north and south access roads to these areas will be built over two sets of three 60-inch culverts. The inert material stockpile consists of waste rock that is mined from above the ore zone, which is not acid generating.

Figure 5 shows the layout the South Portal Area, which will become the primary portal area later in the project life. The South Portal Area will have an office, shop, dry (change house), large DRA, and ore storage pad. The fuel storage area, generators, propane tanks, and water tanks will be located south of the office and shop. The site will also include topsoil stockpiles and inert material storage areas.

4.0 Description of Potential Pollutant Sources

Potential sources that may reasonably be expected to add significant pollutants (including sediment) to storm water discharges are described in this section.

4.1 Site Maps and Flow Direction

Site maps are provided in Appendix A. They include:

- Figure 1 shows the general location of the Daneros Mine.
- Figure 2 shows the three portal areas and the general topography of the area.
- Figure 3 shows the fully built out Daneros Portal Area.
- Figure 4 shows the fully built out Bullseye Portal Area.

- Figure 5 shows the fully built out South Portal Area.

The three portal areas will be graded so that on-site storm water runoff can be collected within berms and/or sediment ponds and allowed to infiltrate. Off-site drainage is diverted around the mine facilities by perimeter ditches and berms. The Bullseye Canyon drainage, which is an ephemeral tributary to the White Canyon drainage, flows south through both the Daneros and Bullseye portal areas as shown on Figure 2. All off-site, surface water runoff at these two portal areas flows towards the Bullseye Canyon drainage. The South Portal Area is located on relatively flat terrain near the top of a canyon that is also tributary to the White Canyon drainage. There are no major drainages crossing the South Portal Area. Off-site surface water runoff in the South Portal Area generally flows south to southwest. The White Canyon drainage flows west to Lake Powell.

As shown on Figure 3, the Daneros Portal Area facilities all drain to a sediment pond located at the southwest corner of the site. The sediment pond is designed to contain the 100-year, 24 hour storm event. If the capacity of the sediment pond is exceeded, the storm water would flow into a tributary of Bullseye Canyon.

A Containment berm with the same design criteria is located in the southwest corner of the Bullseye Portal Area below the DRAs as shown on Figure 4. If the capacity of this berm were to be exceeded, the storm water would flow into the Bullseye Canyon drainage. The pad area in front of the Bullseye Portal slopes to the west, where a berm will be installed to prevent flow into the Bullseye Canyon drainage. In the event of a large storm, the berm could be breached, which would allow discharge to the drainage.

At the South Portal, three sediment ponds will be installed to contain runoff from all disturbances. In the event of a large event exceeding the design capacity of the sediment ponds, the site would discharge from one of the three sampling points shown on Figure 5.

4.2 Identification of Potential Pollutants

The following materials are stored and/or used at the Daneros Mine and have the potential to contaminate storm water:

4.2.1.1. *Development Rock*

Development rock (a.k.a., waste rock) is placed in the Development Rock Areas (DRAs) as shown on Figures 3, 4 and 5. This material has relatively low radioactivity levels compared to uranium ore; however, the levels are elevated above background radioactivity levels. This rock is also potentially acid generating, as it contains pyrite. Although the rock could potentially generate a low pH leachate with elevated levels of metals and radionuclides, it is unlikely to occur because the Daneros Mine is located in an arid environment where there is insufficient moisture to cause significant percolation and associated acid rock drainage or discharge of deleterious leachate. Sediment ponds and berms are also located below the DRAs so that on-site surface water runoff from these areas does not leave the site.

4.2.1.2. *Fuel and Oil Products*

Fuel and oil are used and stored at all three portal areas. A Spill Prevention, Control and Countermeasures Plan (SPCC) has been prepared for the site and lists the procedures and controls to be put in place to reduce the risk of discharging fuel and oil to the environment. In general, fuel and oil will be stored within secondary containment or within the shops and kept isolated from precipitation, as shown in Figures 3, 4, and 5. Spills will be controlled and cleaned up immediately to minimize impacts to the environment. SPCC training will be conducted on a regular basis to familiarize Daneros Mine personnel with oil discharge prevention practices.

4.2.1.3. *Sediment*

Sediment is a potential pollutant source due to the land disturbing activities involved in the grading and stockpiling process to be conducted at the Daneros Mine. Potential sources of sediment include the roads, storage and stockpile areas, and all recently disturbed areas. Erosion and sediment will be controlled through the use of diversion and collection ditches, berms, culverts, sediment ponds, silt fences, straw wattles, hay bales and other best management practices (BMPs). Seeding of disturbed areas and regular maintenance and repair of erosion control features are expected to minimize erosion and limit the amount of sediment contained in storm water flows.

4.2.1.4. *Uranium Ore*

Uranium ore will be stockpiled on the ore pads shown on Figures 3, 4 and 5. The ore pads are designed to drain to the sediment ponds. The ore contains elevated radioactivity levels and is potentially acid generating. However, the ore is only stockpiled in relatively small quantities for short periods of time prior to it being shipped to the mill. All ore will be removed from the surface at the time of closure and reclamation.

4.3 Spills and Leaks

As discussed previously, fuel and oil storage areas are equipped with secondary containment. There have been no spills or leaks of oil products or other materials (e.g., antifreeze, blasting supplies) that have resulted in contamination of off-site storm water since the mine was acquired by Energy Fuels in 2011.

4.4 Sampling Data

No sampling data exists for storm water discharges from the mine due to the limited amount of precipitation received at the site. However, visual observations of storm water discharges for oil and grease, color, odor, clarity, floating solids, settled solids, suspended solids and foam will be conducted at the site and inspection records will be maintained in the compliance binder for the site. If pollutants are observed in storm water discharges from the site, corrective measure will be implemented.

Sampling and testing has been conducted of the uranium ore and waste rock. This data indicates that these materials are potentially acid generating and contain elevated levels

of radionuclides and metals. However, controls are in place to limit their contact with storm water and contain runoff from these areas in sediment ponds.

4.5 Risk Identification and Summary of Potential Pollutant Sources

The following table describes the potential pollutant sources from activities conducted at the Daneros Mine. The risks of these potential pollutants to occur are also discussed in Section 4.1 above.

Source	Potential Pollutant Parameter
Unloading and loading of ore	Sediment, radionuclides, and heavy metals
Outdoor storage activities associated with ore, development rock, equipment, oil, and fuel	Sediment, radionuclides, heavy metals, and hydrocarbons
Site Grading	Sediment

Measures and controls identified in Section 5.0 of this plan will be implemented to minimize the risk from the identified potential pollutant sources.

5.0 Measures and Controls

Storm water management controls and procedures for implementing these controls at the mine are described in the following sections.

5.1 Good Housekeeping

Good housekeeping practices are encouraged at the Daneros Mine and are implemented to maintain a clean and orderly work environment. Good housekeeping is an effective first step toward preventing accidental spills of materials that may have an adverse impact on storm water quality. Clean and orderly work areas reduce the likelihood of accidental spills caused by mishandling of materials and equipment, and reduce safety hazards to facility personnel.

Specific items addressed as part of the good housekeeping program are discussed below.

- Garbage and waste material will be regularly picked up and disposed of offsite.
- Temporary drip pans will be used to catch drips from valves, pipes, hoses, and drains, etc., so that the materials can be easily cleaned up or recycled before they can contaminate storm water.

- Any spills of oil products or other potential pollutants will be cleaned up immediately.
- Used oil, batteries, scrap metal and other recyclable materials will be shipped off-site on a routine basis so that they do not accumulate over time.

5.2 Preventive Maintenance

Energy Fuels' preventive maintenance program includes the following:

- Identification of sediment and erosion controls, equipment, and site areas with high pollution potential that are to be inspected on a regular basis.
- Inspection of storm water management devices, including erosion and sediment control systems and devices, at the specified frequency.
- Appropriate and timely maintenance, repair, or replacement of control measures and equipment.
- Regular maintenance of equipment so that it is working properly.
- Routine inspections to check for leaks or conditions that could lead to discharges of pollutants.
- Maintenance of a recordkeeping system for SWPPP-related activities including inspections, maintenance and repairs, and training. Maintenance and repairs are to be documented with an attachment to the Inspection Form (see Appendix C). Photographs may be useful for documenting the condition and maintenance of BMPs.

5.3 Spill Prevention and Response Procedures

Spill prevention and response measures for oil products are outlined in detail in the SPCC Plan for the site. Care will also be taken to properly store and handle blasting agents, anti-freeze, and other products used on site that could potentially contaminate stormwater. Blasting agents are stored in the appropriate explosives magazine while antifreeze and other maintenance products are stored within secondary containment in the shop or fuel storage area. The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into storm water runoff and conveyance systems. A Discharge Notification Form is provided in Appendix E for ease of reference. This form is also provided in the SPCC Plan.

5.4 Storm Water Inspections

Site personnel are responsible for inspecting erosion and drainage control structures, material storage areas, and spill prevention BMPs. These facilities are to be installed and maintained in accordance with the mine plans and specifications. Corrective action will be taken as soon as practicable in response to inspections finding defective controls. Inspections are to be conducted monthly during active operations and documented on the Inspection Form provided in Appendix C. A comprehensive annual inspection is also required (see Section 6 below) and can be recorded on the Inspection Form with additional pages attached as necessary to fully document the inspection.

The monthly inspections can be done at any time during the month but preferably after a precipitation event when erosion or drainage problems are usually more evident. For temporarily inactive sites, monthly inspections are not required, but at least one inspection should be performed each quarter unless the site is not accessible due to snow pack or other conditions.

5.5 Employee Training

Mine personnel will be given appropriate training information for compliance with the SWPPP and will receive training upon the start of employment and, at a minimum, once per calendar year thereafter. Records of training sessions for storm water pollution prevention will be recorded and kept with the SWPPP.

5.6 Record Keeping

Records of inspections, maintenance and repairs, and employee training will be maintained with the SWPPP for a minimum of three years. Three copies of the SWPPP are to be maintained current at all times. One copy is to be kept at the mine (or the Area Manager's office if the mine is inactive). The second copy will be kept at the Environmental Health and Safety Manager's office and the third copy will be maintained at the corporate office by the Environmental Licensing and Compliance Group. It is the responsibility of those doing the inspections and/or training to make sure that the work is recorded and the holders of the other two plans are copied with the appropriate documentation.

5.7 Non-Storm Water Discharges

The following non-storm water discharges are allowed from the site:

- Firefighting activities
- Routine external building wash down that does not use detergents or other compounds

Energy Fuels certifies that there is no unauthorized discharge of non-storm water, such as mine water discharge, into the storm water systems. Storm water is discharged in compliance with the UPDES general permit associated with industrial activity from metal mining facilities.

5.8 Sediment and Erosion Control

Areas of potential erosion include the roads, topsoil stockpiles, inert material stockpiles, ore stockpiles, DRAs, and any areas recently disturbed by construction activities. These areas are to be bermed to collect any sediment transported by erosion. In addition, sediment ponds are to be located below the mine facilities as shown in Figures 3, 4, and 5. Berms, sediment ponds and other Best Management Practices (BMPs) will be implemented to prevent sediment and other pollutants from entering the receiving waters. Typical BMPs at the site may include but are not limited to:

5.8.1 Containment Berms

A containment berm will be installed along the downhill perimeter of mine facilities. Flatter areas may require berming on multiple sides. The berms will be inspected and repaired, as needed, on a routine basis. Containment berms will have rollover berms installed at access points to allow vehical passage while maintaining the integrity of the berms.

5.8.2 Diversion Berms and Ditches

Diversion berms and ditches will be installed upslope of mine facilities to divert off-site runoff around the mine site and into natural drainages. They will also be installed with the facility boundaries to divert storm water to downstream sediment ponds. The berms and ditches will preferably be stabilized with vegetation; however, steeper areas may require the placement of riprap or other erosion control measures. The berms and ditches will be inspected and maintained, as necessary, on a routine basis.

5.8.3 Sediment Ponds

Sediment ponds (a.k.a., retention ponds) are utilized to contain storm water originating on site where the water is allowed to gradually infiltrate into the underlying soil. The ponds are designed for a specified storm event and are equipped with overflow outlets that will safely pass larger events. Sediment settles out of the retained water and collects at the base of the pond. The ponds are routinely inspected and repaired, as necessary. The sediment is periodically cleaned out of the base of the pond with a backhoe or other appropriate equipment and placed on a nearby DRA.

Outflow structures will be installed on the sediment ponds and containment berms. The outflow structure location, shape, expected peak flow and armoring is summarized below.

Location	Channel Slope (ft/ft)	Base Width (ft)	Right Side Slope	Left Side Slope	Expected Peak Flow (cfs)	Expected Peak Velocity (cfs)	Armoring
Daneros Portal Area							
Sediment Pond	0.016	0	2H:1V	3H:1V	5.3	1.8	Compacted Fill
Bullseye Portal Area							
DRA Area Berm	0.2	15	3H:1V	3H:1V	7.6	4.7	Compacted Fill
Portal Area Berm	0.063	5	3H:1V	10H:1V	2.3	3.0	Compacted Fill
South Portal Area							
Portal Area Sediment Pond	0.02	20	10H:1V	10H:1V	10.4	2.1	Compacted Fill
West Facility Area Sediment Pond	0.07	6	3H:1V	2H:1V	14.6	5.5	Compacted Fill
East Facility Area Sediment Pond	0.04	5	2H:1V	3H:1V	5.0	3.5	Compacted Fill

5.8.4 Culverts

Culverts will be used to divert off site storm water runoff through the site and prevent comingling of on-site pollution sources with off-site storm water. The culverts will generally be sized to pass the 100-year, 24-hour storm event. Culverts will be inspected and cleaned, where necessary, on a routine basis. With the exception of culverts installed in the county-maintained roads, the culverts will be removed during reclamation and the natural drainage system restored.

5.8.5 Seeding

Topsoil stockpiles and disturbed areas that will remain inactive for long periods of time will be seeded to establish a temporary vegetative cover and reduce the potential for erosion during mine operations. Permanent seeding will be conducted in disturbed areas during site reclamation after the areas have been regraded and covered with topsoil. Late fall is the preferred season to conduct seeding.

5.8.6 Topsoil Stockpiles

Topsoil stripped from the Daneros Mine is stockpiled for future use in reclamation. The topsoil stockpiles will be temporarily seeded to establish a vegetative cover for erosion and dust control.

5.8.7 Contour Ripping

Ripping or scarification along the topographic contour will be utilized prior to seeding to allow for the retention of moisture and minimize surface water runoff and associated erosion.

5.8.8 Straw Bales and Wattles

Straw bales or straw wattles can be placed in a row to create a temporary sediment barrier. The bales are typically slightly entrenched or anchored with rebar while the wattles are anchored with wooden stakes. These temporary barriers are placed along the downgradient limits of disturbance or at the toe of a slope or stockpile where they filter out sediment from surface water runoff. They are not suitable for permanent controls but are an effective means to limit erosion for several months until vegetation or other more permanent controls can be established.

5.8.9 Silt Fences

Silt fences are another form of temporary erosion control that can be placed around the downgradient limits of disturbance or at the toe of a slope or stockpile to filter runoff. The silt fence is anchored with wooden stakes in a shallow backfilled ditch (typically 3 to 6-inches deep).

5.9 Capping

When the DRAs are fully constructed, they will be regraded to a stable slope and inert rock and subsoil will be used as the initial cover over the acid-generating waste rock. Topsoil will then be placed as the final cover and seeded. The cap is designed to:

- Prevent precipitation from coming in contact with the waste rock and reduce the risk of acid generation.
- Achieve radiation levels similar to background levels.
- Establish a suitable growth medium for revegetation.

Any remaining ore at the site will not be capped, but will be either shipped to the mill or placed back in the underground workings. The underground portals will be sealed with waste rock and backfilled at the surface with soil and seeded.

5.10 Treatment

Treatment of storm water at the Daneros Mine will be limited to the installation of filter barriers (i.e., straw bales, straw wattles, or silt fence) around disturbed areas and clarification of storm water in the sediment ponds. No chemical treatment of storm water will be performed at the Daneros Mine. Where possible, undisturbed buffer zones will be left between the remaining areas of surface disturbance and the adjacent drainage areas to provide additional mitigation in the event that a control feature fails.

6.0 Comprehensive Site Compliance Evaluation

Comprehensive site compliance evaluations (CSCEs) will be conducted by qualified personnel once a year at the Daneros Mine. The CSCE will evaluate the mine's compliance with the requirements and guidelines prescribed in this SWPPP, verify that the SWPPP reflects current conditions and operations at the site, and recommend any maintenance, repairs, or improvements that should be made to improve permit compliance. The CSCE consists of three main tasks:

- A visual inspection will be made of the mine areas that could potentially contribute to a storm water discharge associated with industrial mining activity for evidence of, or the potential for, pollutants entering the storm water drainage system. Measures to reduce pollutant loadings will be evaluated to determine whether additional control measures are needed. A visual evaluation will be conducted of structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures to ensure they are operating correctly. The equipment needed to implement the plan, such as spill response equipment, will also be inspected.
- Based on the results of the evaluation, the description of potential pollutant sources identified in Section 4.0 of this plan, and pollution prevention measures and controls identified in Section 5.0 of this plan will be revised as needed. Plan revisions are to be made within 30 days after the CSCE and implemented within 12 weeks after the CSCE.
- A report will be prepared summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWPPP, and any actions taken. This report will be retained as part of the SWPPP for at least 3 years after the date of the evaluation. The report will identify any incidents of noncompliance determined from the

CSCE. Reports that do not identify any incidents of noncompliance will contain a statement that the facility is in compliance with the SWPPP and the conditions of the UPDES General Permit. The report must be signed by the Energy Fuels individual having signatory authority for reports required by the UPDES General Permit (i.e., a corporate officer or a duly authorized representative of the company).

Where compliance evaluation schedules overlap with regular monthly or quarterly inspections, the CSCE may be conducted in place of the regular inspection.

Appendix A - Figures

Figure 1 - General location

Figure 2 – Site Map

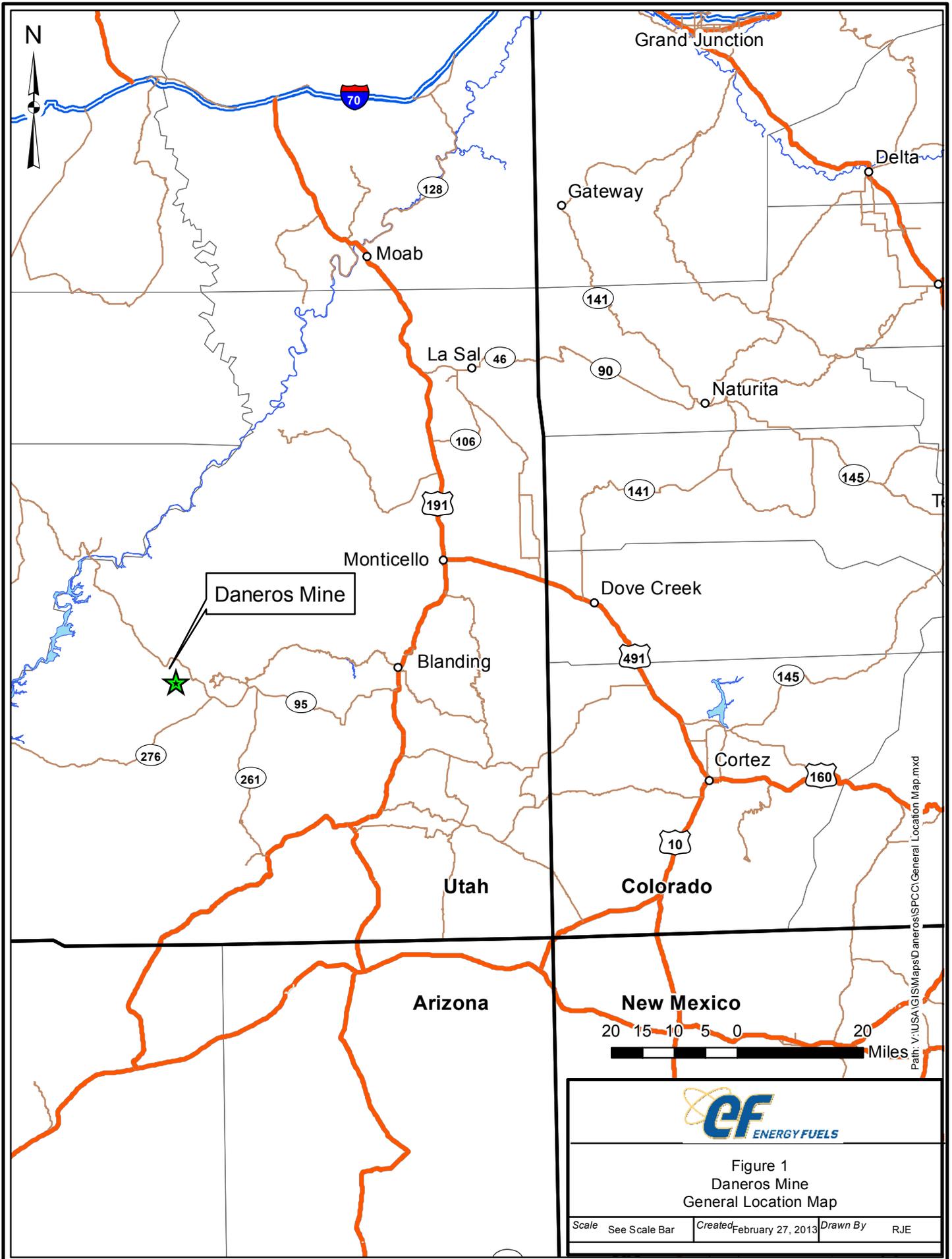
Figure 3 – Daneros Portal Area

Figure 4 – Bullseye Portal Area

Figure 5 – South Portal Area

Figure 6 – Culvert Detail

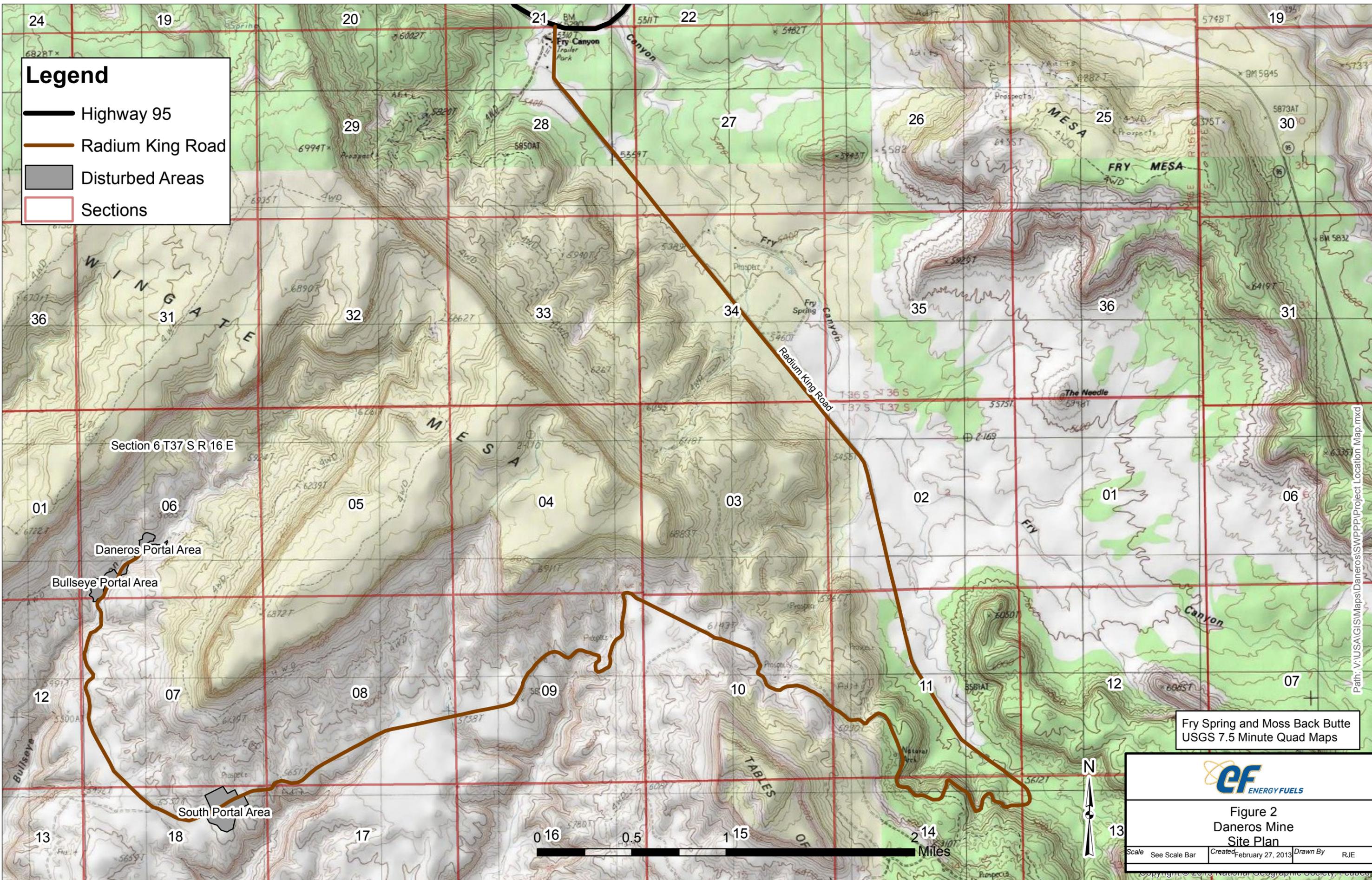
Figure 7 – Ore Pad Rollover Berm Detail



Path: V:\USA\GIS\Maps\Daneros\SPCC\General_Location_Map.mxd

Legend

- Highway 95
- Radium King Road
- Disturbed Areas
- Sections



Path: V:\USA\GIS\Maps\Daneros\SWPPP\Project Location Map.mxd

Fry Spring and Moss Back Butte
USGS 7.5 Minute Quad Maps

CF ENERGY FUELS

Figure 2
Daneros Mine
Site Plan

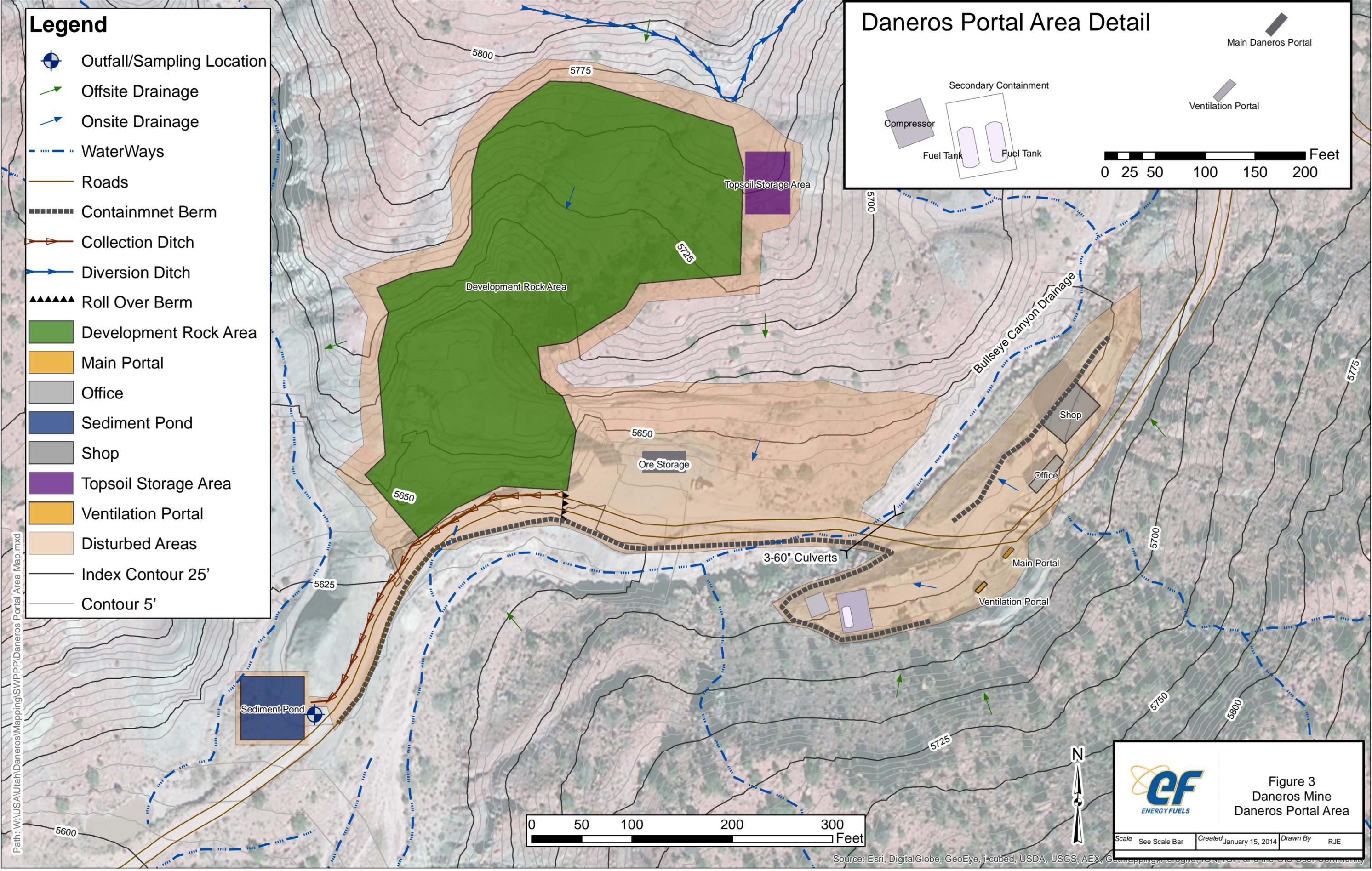
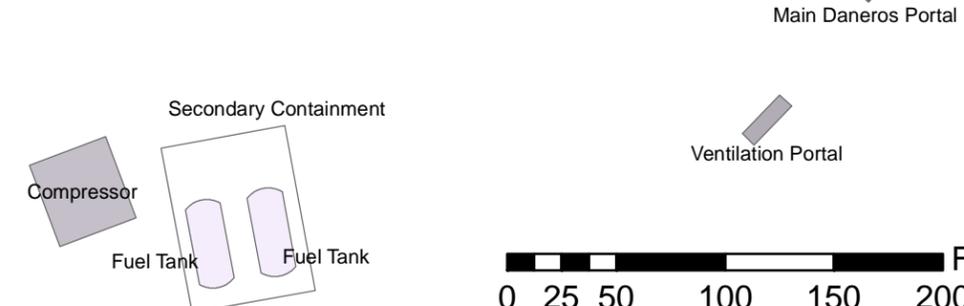
Scale	See Scale Bar	Created	February 27, 2013	Drawn By	RJE
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Legend

-  Outfall/Sampling Location
-  Offsite Drainage
-  Onsite Drainage
-  WaterWays
-  Roads
-  Containmnet Berm
-  Collection Ditch
-  Diversion Ditch
-  Roll Over Berm
-  Development Rock Area
-  Main Portal
-  Office
-  Sediment Pond
-  Shop
-  Topsoil Storage Area
-  Ventilation Portal
-  Disturbed Areas
-  Index Contour 25'
-  Contour 5'

Daneros Portal Area Detail



Path: W:\USA\Utah\Daneros\Mapping\SWPPP\Daneros Portal Area Map.mxd

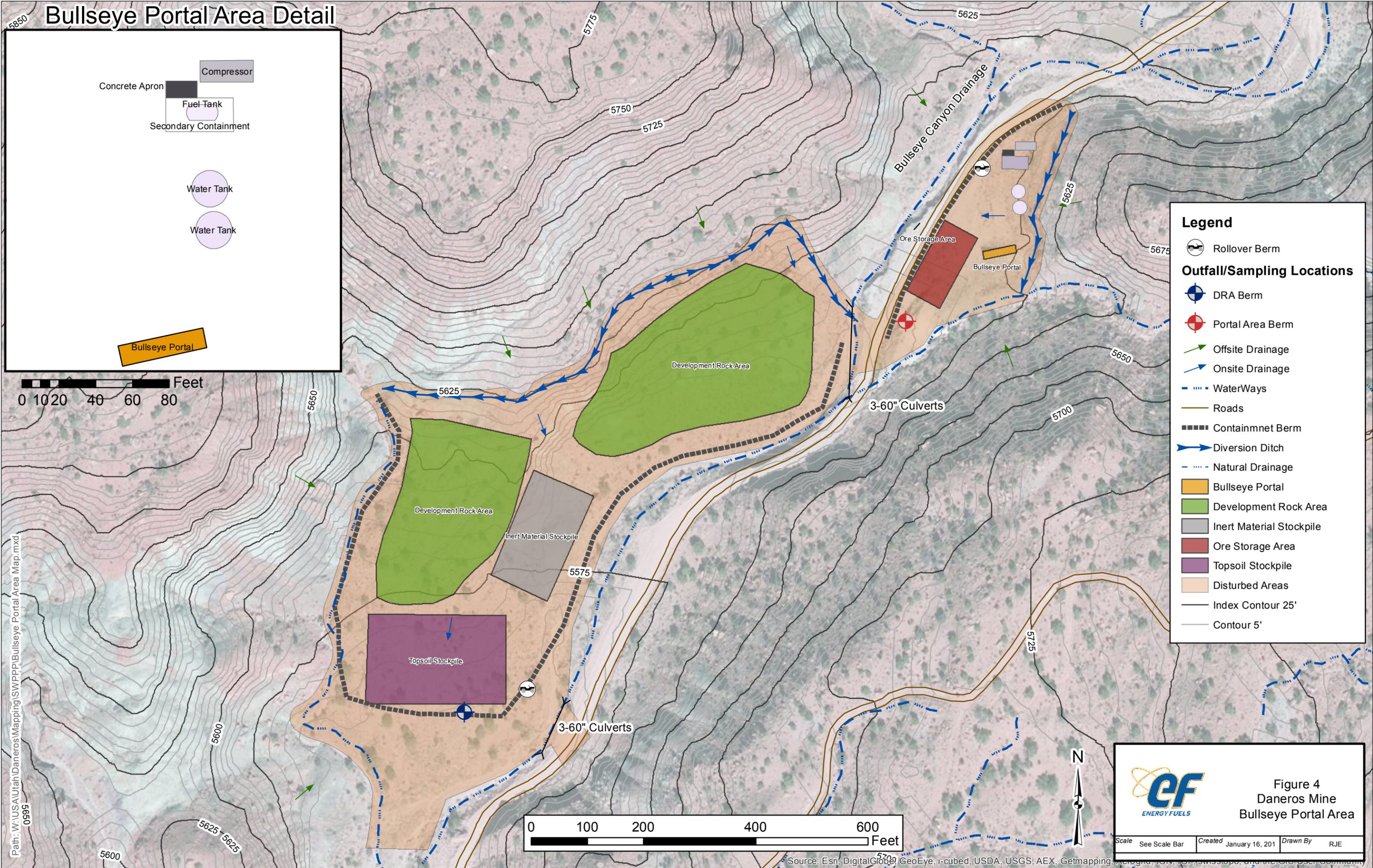


Figure 3
Daneros Mine
Daneros Portal Area

Scale See Scale Bar Created January 15, 2014 Drawn By RJE

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Geomatics, IGN, IGN, and the GIS User Community

Bullseye Portal Area Detail



- Concrete Apron
- Compressor
- Fuel Tank
- Secondary Containment

- Water Tank
- Water Tank

Bullseye Portal

0 10 20 40 60 80 Feet

Legend

- Rollover Berm
- Outfall/Sampling Locations**
- DRA Berm
- Portal Area Berm
- Offsite Drainage
- Onsite Drainage
- WaterWays
- Roads
- Containment Berm
- Diversion Ditch
- Natural Drainage
- Bullseye Portal
- Development Rock Area
- Inert Material Stockpile
- Ore Storage Area
- Topsoil Stockpile
- Disturbed Areas
- Index Contour 25'
- Contour 5'

0 100 200 400 600 Feet



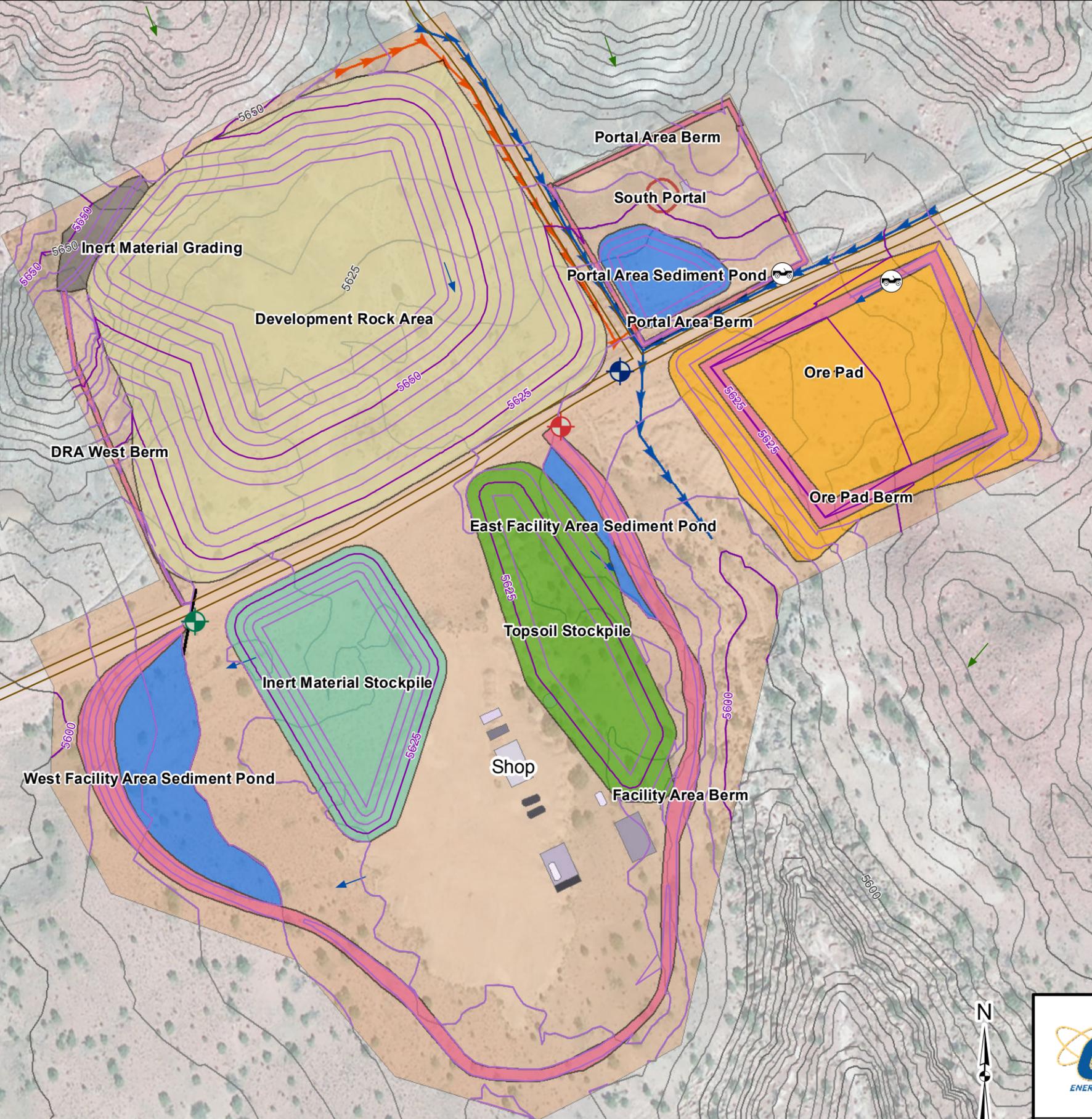
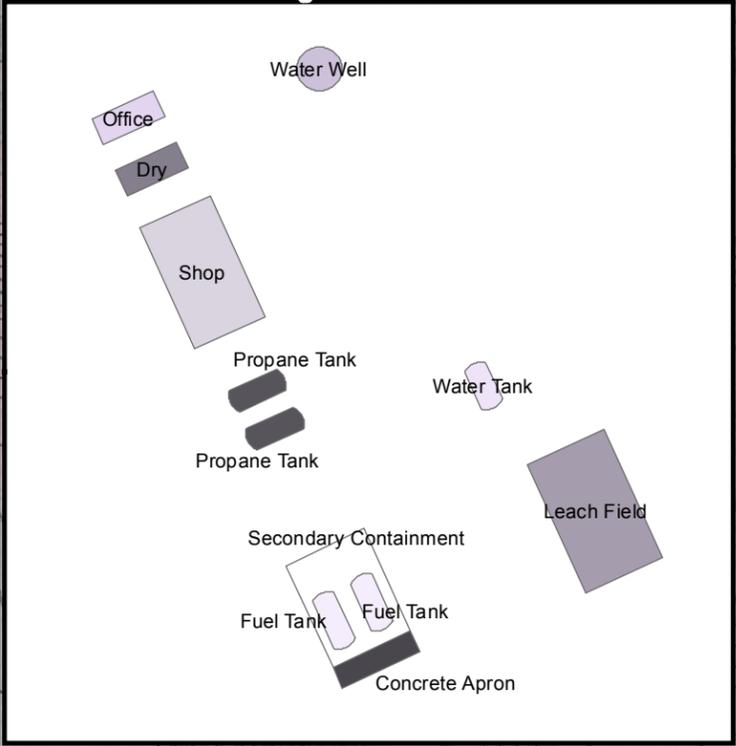
Figure 4
Daneros Mine
Bullseye Portal Area

Scale	See Scale Bar	Created	January 16, 2011	Drawn By	RJE
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Path: W:\US\Utah\Daneros\Mapping\SWPPP\Bullseye Portal Area Map.mxd 0995

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGC, Swire, GeoEye, and the GIS User Community

Shop Area Detail

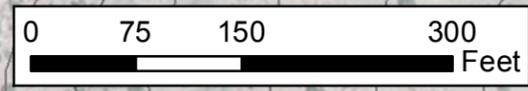


Legend

Outfall/Sampling Locations

- East Facility Sediment Pond
- Portal Area Sediment Pond
- West Facility Sediment Pond
- Rollover Berm
- Index Contour 25 Foot
- Contour 5 Foot
- Offsite Drainage
- Onsite Drainage
- Roads
- South Portal
- Development Rock Area
- Inert Material Stockpile
- Topsoil Stockpile
- Inert Material Grading
- Berm
- Ore Pad
- Sediment Pond
- Culvert
- Collection Ditch
- Diversion Ditch
- Index Contour - 25 Foot
- Contour - 5 Foot
- Disturbed Areas

Path: W:\USA\Utah\Daneros\Mapping\SWPPP\South Portal Area Map.mxd

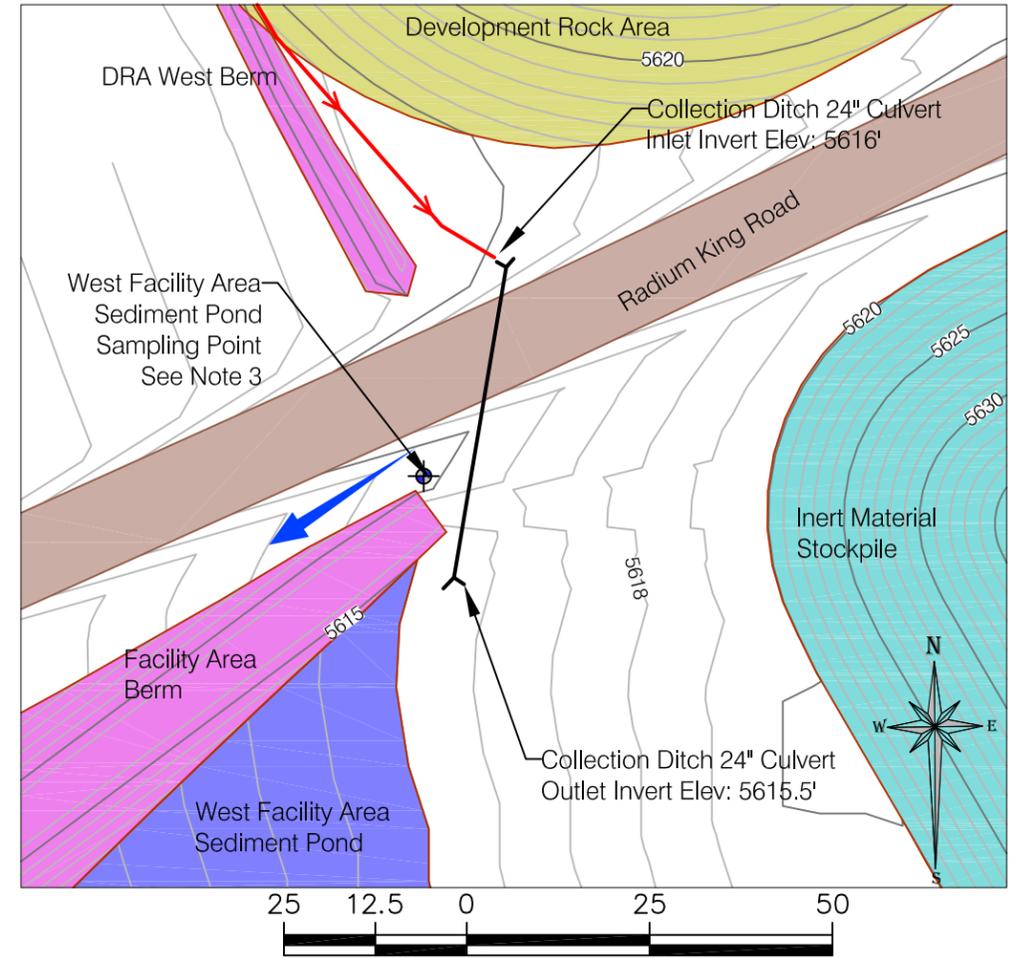
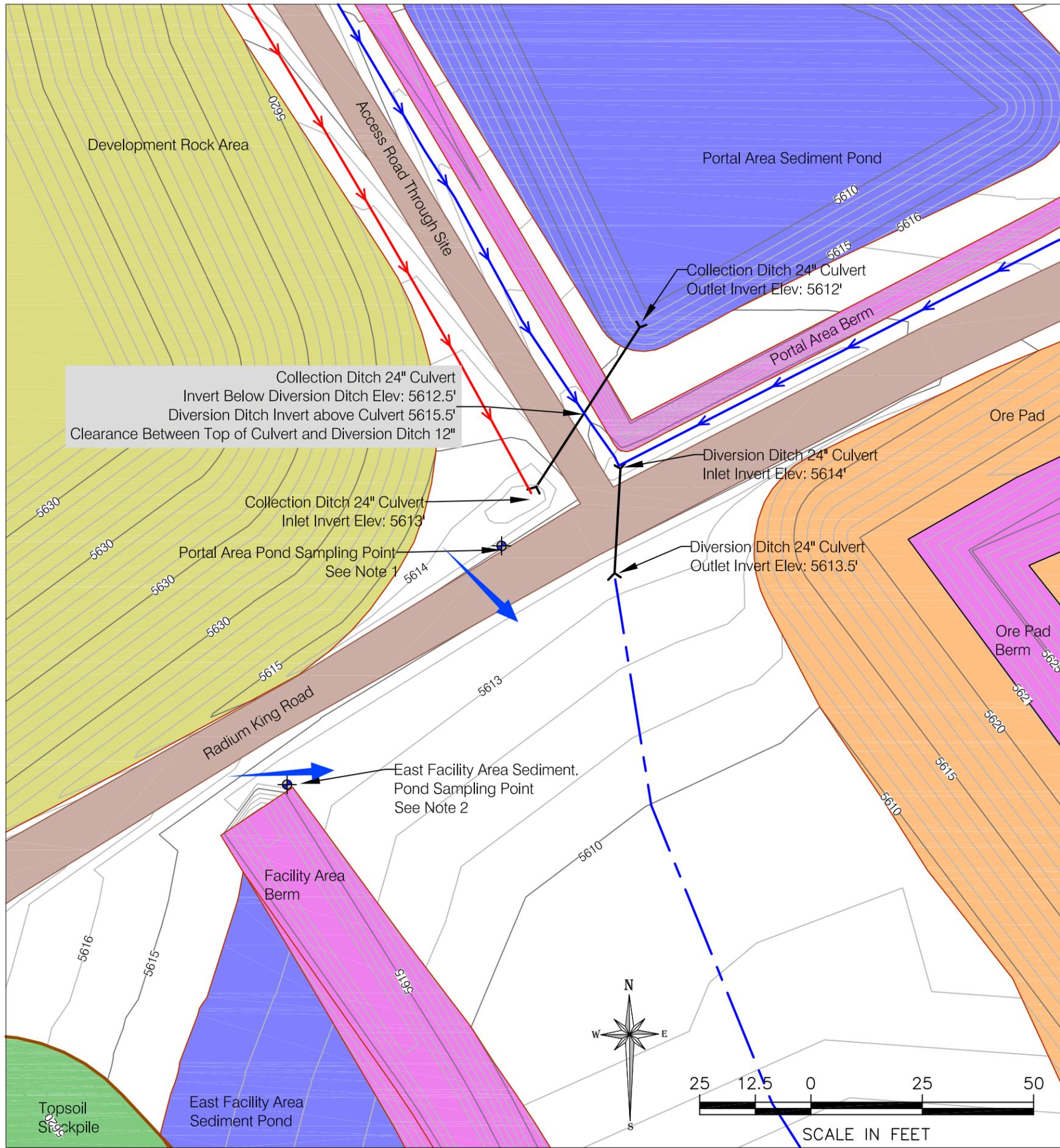


CF
ENERGY FUELS

Figure 5
Daneros Mine
South Portal Area

Scale See Scale Bar Created September 5, 2013 Drawn By RJE

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGA, Swire, and the GIS User Community



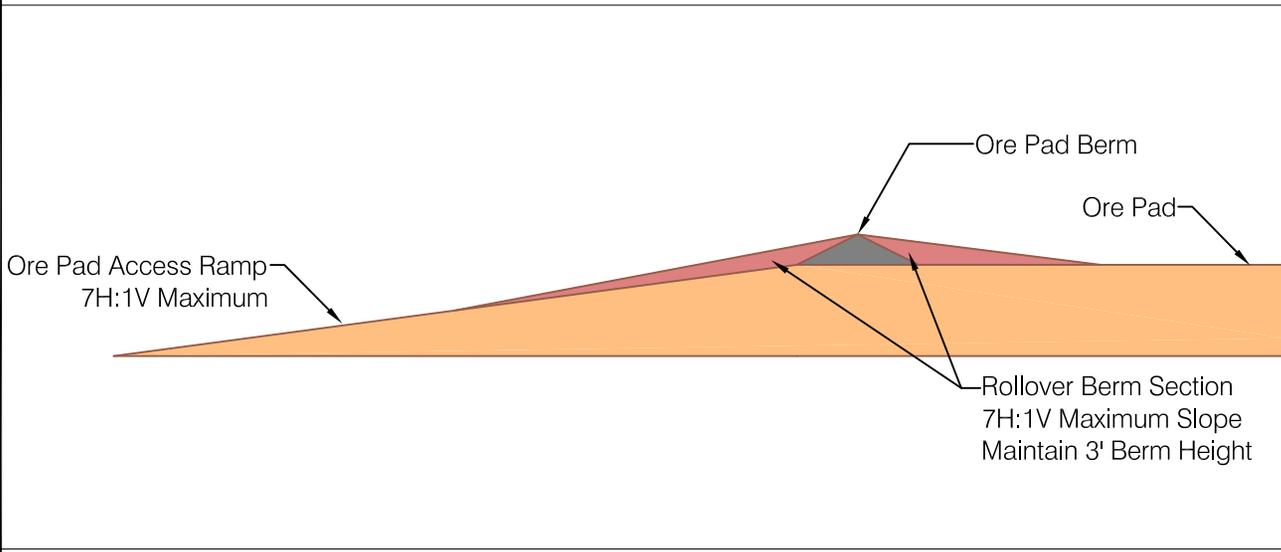
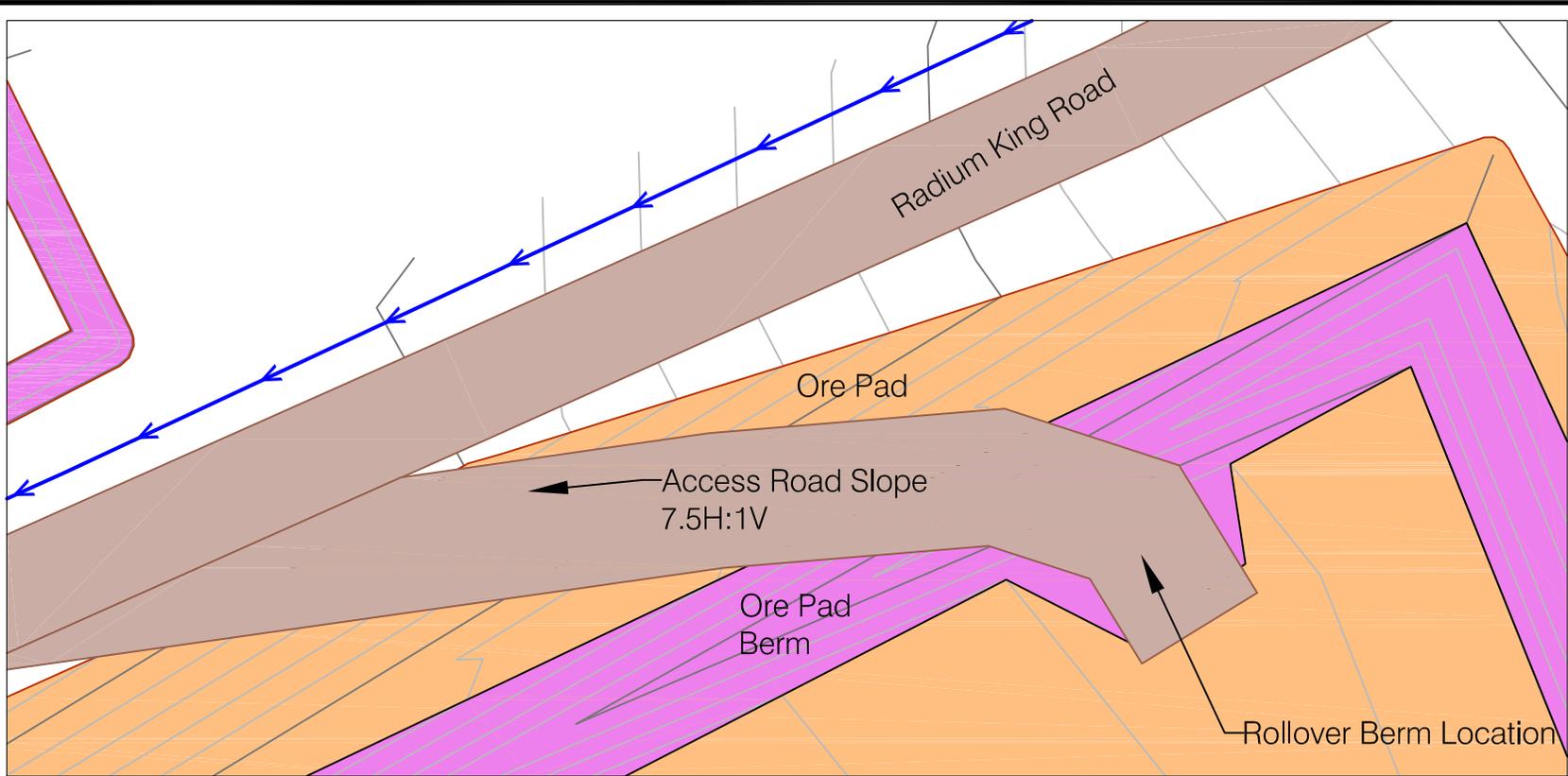
- Notes:
- In the event that there is a storm event large enough to exceed the design capacity of the sediment ponds, the excess runoff will pass through an emergency spillway and flow to a natural drainage as described below:
1. If the Portal Area Sediment Pond fills to its capacity, excess runoff will stop being transported through the Collection Ditch Culvert and will back up until it flows south over Radium King Road to a natural drainage. This location will serve as the sampling point.
 2. If the East Facility Area Sediment Pond fills to its capacity, excess runoff will be routed to the north around the Facility Area Berm and progress east to a natural drainage. This location will serve as the sampling point.
 3. If the West Facility Area Sediment Pond fills to its capacity, excess runoff will be routed to the north around the Facility Area Berm and progress west to a natural drainage. This location will serve as the sampling point.

- Natural Drainage
- Collection Ditch
- Diversion Ditch
- Spillway Flow Direction

EF Energy Fuels Resources (USA) Inc.

REVISIONS		Project: Daneros Mine	
Date	By	County: San Juan	State: Utah
		Location: Sec 18, T37S R16E	
Figure 6 South Portal Area Culvert Details			
Author: RJE		Date: 1/16/14	Drafted By: RJE

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		Project: Daneros Mine																																		
		County: San Juan	State: Utah																																	
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REVISIONS	Date	By																																		
Figure 7 Ore Pad Rollover Berm Detail																																				
Author: RJE		Date: 1/16/14	Drafted By: RJE																																	

Appendix B – UPDES General Permit for Storm Water Discharges

G. Storm Water Discharges Associated With Industrial Activity From Metal Mining (Ore Mining and Dressing) Facilities.

Coverage of This Section.

- a. Discharges Covered Under This Section. The requirements listed under this section shall apply to storm water discharges from active and inactive metal mining and ore dressing facilities [Standard Industrial Classification (SIC) Major Group 10] if the storm water has come into contact with, or is contaminated by, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the operation. SIC Major Group 10 includes establishments primarily engaged in mining, developing mines, or exploring for metallic minerals (ores) and also includes all ore dressing and beneficiating operations, whether performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately. For the purposes of this part of the permit, the term "metal mining" includes all ore mining and/or dressing and beneficiating operations, whether performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately. All storm water discharges from inactive metal mining facilities and the storm water discharges from the following areas of active, and temporarily inactive, metal mining facilities are the only discharges covered by this section of the permit: topsoil piles; offsite haul/access roads if off active area; onsite haul roads if not constructed of waste rock or if spent ore and mine water is not used for dust control; runoff from tailings dams/dikes when not constructed of waste rock/tailings and no process fluids are present; concentration building, if no contact with material piles; mill site, if no contact with material piles; chemical storage area; docking facility, if no excessive contact with waste product; explosive storage; reclaimed areas released from reclamation bonds prior to December 17, 1990; and partially/inadequately reclaimed areas or areas not released from reclamation bonds.

- b. Limitations on Coverage. The following storm water discharges associated with industrial activity are not authorized by this permit:
 - (1) Discharges from active metal mining facilities that are subject to the effluent limitation guidelines for the Ore Mining and Dressing Point Source Point Source Category (40 CFR Part 440). Coverage under this permit does not include adit drainage or contaminated springs or seeps at active facilities, temporarily inactive facilities, or inactive facilities. Also see Limitations on Coverage, *Part I.D.*

APPENDIX II.G
Permit No.: UTR000000

- (2) Storm water discharges associated with an industrial activity that the *Executive Secretary* has determined to be, or may reasonably be expected to be, contributing to a violation of a water quality standard.
 - (3) Storm water discharges associated with industrial activity from inactive mining operations occurring on Federal lands where an operator cannot be identified.
 - c. Co-Located Industrial Activity. When an industrial facility, described by paragraph *a.* above coverage provisions of this section, has industrial activities being conducted onsite that meet the description(s) of industrial activities in another section(s), that industrial facility shall comply with any and all applicable monitoring and pollution prevention plan requirements of the other section(s) in addition to all applicable requirements in this section. The monitoring and pollution prevention plan terms and conditions of this multi-sector permit are additive for industrial activities being conducted at the same industrial facility. The operator of the facility shall determine which other monitoring and pollution prevention plan section(s) of this permit (if any) are applicable to the facility.
2. Special Definitions. The following definitions are only for this section of the permit and are not intended to supersede the definitions of active and inactive mining facilities established by *40 CFR 122.26(b)(14)(iii)*:
 - a. "Active Metal Mining Facility" is a place where work or other related activity to the extraction, removal, or recovery of metal ore is being conducted. With respect to surface mines, an "active metal mining facility" does not include any area of land on or in which grading has been completed to return the earth to a desired contour and reclamation work has begun.
 - b. "Inactive Metal Mining Facility" means a site or portion of a site where metal mining and/or milling activities occurred in the past but is not an active metal mining facility, as defined in this permit and that portion of the facility does not have an active mining permit issued by the applicable (federal or state) governmental agency.
 - c. "Temporarily Inactive Metal Mining Facility" means a site or portion of a site where metal mining and/or milling activities occurred in the past, but currently are not being actively undertaken, and the facility has an active mining permit issued by the applicable (federal or state) government agency that authorizes mining at the site.

3. Storm Water Pollution Prevention Plan Requirements.

a. Contents of Plan for Active and Temporarily Inactive Metal Mining Facilities. The plan shall include, at a minimum, the following items:

(1) Pollution Prevention Team. Identification of a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team that are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.

(2) Description of Mining Activities. A description of the mining and associated activities taking place at the site that affect or may affect storm water runoff intended to be covered by this permit. The description shall report the total acreage within the mine site, an estimate of the number of acres of disturbed land and an estimate of the total amount of land proposed to be disturbed throughout the life of the mine. A general description of the location of the mining site relative to major transportation routes and communities shall also be provided.

(3) Description of Potential Pollutant Sources. A description of potential sources that may reasonably be expected to add significant amounts of pollutants (including sediment) to storm water discharges or that may result in the discharge of pollutants during dry weather. Each description shall identify all activities and significant materials that may potentially be significant storm water pollutant sources from the active mining activity (see paragraph 1.), including, at a minimum:

(a) Drainage.

i) A site topographic map that indicates, at a minimum: mining/milling site boundaries and access and haul roads; the location of each storm water outfall and an outline of the portions of the drainage area that are within the facility boundaries; equipment storage, fueling and maintenance areas; materials handling areas; storage areas for chemicals and explosives; areas used for storage of overburden, materials, soils or wastes; location of mine drainage (where water leaves mine) or any other process water; tailings piles/ponds, both proposed and existing;

APPENDIX II.G
Permit No.: UTR000000

heap leach pads; points of discharge from the property for mine drainage or any other process water; springs, streams, wetlands and other surface waters; and boundary of tributary areas that are subject to effluent limitations guidelines. In addition, the map must indicate the types of discharges contained in the drainage areas of the outfalls.

- ii) Prediction of the direction of flow, and identification of the types of pollutants (e.g., heavy metals, sediment) that are likely to be present in storm water discharges associated with industrial activity, for each area of the mine/mill site that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants. Factors to consider include the mineralogy of the ore and waste rock (e.g., acid forming), toxicity and quantity of chemical(s) used, produced or discharged; the likelihood of contact with storm water; vegetation on site if any, and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified.

- iii) Inventory of Exposed Materials. An inventory of the types of materials handled at the site that potentially may be exposed to precipitation for each storm water outfall that may be covered under this permit (see paragraph 1.). Such inventory shall include a narrative description of: significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the date of the submission of a *Notice of Intent (NOI)* to be covered under this permit and the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the date of the submission of a *Notice of Intent (NOI)* to be covered under this permit and the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives. The inventory of exposed materials shall include, but shall not be limited to the significant materials stored exposed to storm water, and material management practices employed that were listed for the facility in the approved group application. A summary of any existing ore or waste rock/overburden characterization data, including results of testing for acid rock

APPENDIX II.G
Permit No.: UTR000000

generation potential. If the ore or waste rock/overburden characterization data is updated due to a change in the ore type being mined, the storm water pollution prevention plan shall be updated with the new data.

- (b) Spills and Leaks. A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the date of submission of a *Notice of Intent (NOI)* to be covered under this permit. Such list shall be updated as appropriate during the term of the permit.
 - (c) Sampling Data. A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.
 - (d) Risk Identification and Summary of Potential Pollutant Sources. A narrative description of the potential pollutant sources from the following activities associated with metal mining: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and onsite waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter (e.g., heavy metals, etc.) of concern shall be identified.
- (4) Measures and Controls. A description of storm water management controls appropriate for the facility, and procedures for implementing such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:
- (a) Good Housekeeping. Good housekeeping such as maintenance in a clean, orderly manner of areas that may contribute pollutants to storm water discharges. (For suggested measures for vehicle maintenance operations, see good housekeeping measures specified in *Appendix II.P* for transportation facilities.)

APPENDIX II.G
Permit No.: UTR000000

- (b) Preventive Maintenance. A narrative describing the program for timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspection and testing of facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems. Particular attention shall be given to erosion control and sediment control systems and devices.

- (c) Spill Prevention and Response Procedures. Areas where potential spills that can contribute pollutants to storm water discharges, and their accompanying drainage points. The description area shall include, where appropriate, specific material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered; procedures for cleaning up spills and the method for making these plans and the necessary equipment to implement a clean up available to the appropriate personnel.

- (d) Inspections. Provisions for qualified personnel to inspect designated equipment and mine areas at least on a monthly basis for active sites. The monthly inspections can be done at any time during the month and do not have to be done immediately following a precipitation event. For temporarily inactive sites, the inspections should be quarterly; however, inspections are not required when adverse weather conditions (e.g., snow) make the site inaccessible. All material handling areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion control systems and sediment control devices shall also be inspected to determine if they are working properly. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained. The use of a checklist developed by the facility is encouraged.

- (e) Employee Training. Outlines of employee training programs that inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping, and material management practices. The pollution prevention plan shall specify how often training shall take place, but in all cases training must be held at least annually (once per calendar

APPENDIX II.G
Permit No.: UTR000000

year).

- (f) Recordkeeping and Internal Reporting Procedures. Descriptions of incidents (such as spills, major storm events, or other discharges), as well as information describing the quality and quantity of storm water discharges. Inspections, maintenance activities, and training sessions shall also be documented and records of such activities shall be incorporated into the plan.

- (g) Non-storm Water Discharges.
 - i) Certification. A certification that any discharge has been tested or evaluated for the presence of non-storm water discharges, such as seeps or adit discharges or discharges subject to effluent limitation guidelines (e.g., *40 CFR Part 440*), such as mine drainage or process water of any kind. The certification shall include the identification of potential significant sources of non-storm water or water subject to effluent limitation guidelines at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with *Part VI.G.* of this permit. Such certification may not be feasible if the facility operating the storm water discharge associated with industrial activity does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the storm water pollution prevention plan shall indicate why the certification required by this part was not feasible, along with the identification of potential significant sources of non-storm water at the site. A discharger that is unable to provide the certification required by this paragraph must notify the *Executive Secretary* in accordance with paragraph *3.a.(4)(g)(iii)* (below).

Alternatively, the plan may include a certification that any non-storm water discharge that mixes with storm water is subject to a separate *UPDES* permit that applies applicable effluent limitations prior to the mixing of non-storm water and storm water. In such cases, the certification shall identify the non-storm water discharge(s), the applicable *UPDES* permit(s), the effluent limitations placed on the non-storm water discharge by the *UPDES*

APPENDIX II.G
Permit No.: UTR000000

permit(s), and the point(s) at which the limitations are applied.

- ii) Exceptions. Except for flows from fire fighting activities, sources of non-storm water listed in *Part II.A.2* (Prohibition of Non-storm Water Discharges) of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

- iii) Failure to Certify. Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the *Executive Secretary* within 180 days after submitting an *NOI* to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State that are not authorized by a *UPDES* permit are unlawful, and must be terminated.

- (h) Sediment and Erosion Control. Identification of areas that, due to topography, activities, or other factors, have a high potential for significant erosion of soil and/or other materials, and measures to be used to limit erosion and/or remove sediment from storm water runoff. The measures to consider include diversion of flow away from areas susceptible to erosion (such as interceptor dikes and swales; diversion dikes curbs and berms; pipe slope drains; subsurface drains; and drainage/storm water conveyance systems [channels or gutters; open top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector; and culverts]), stabilization methods to prevent or minimize erosion (such as temporary or permanent seeding; vegetative buffer strips; protection of trees; topsoiling; soil conditioning; contouring; mulching; geotextiles [matting; netting; or blankets]; riprap; gabions; and retaining walls), and structural methods for controlling sediment (such as check dams; rock outlet protection; level spreaders; gradient terraces; straw bale barriers; silt fences; gravel or stone filter berms; brush barriers; sediment traps; grass swales; pipe slope drains; earth dikes; other controls such as entrance

APPENDIX II.G
Permit No.: UTR000000

stabilization, waterway crossings or wind breaks; or other equivalent measures).

- (i) Management of Runoff. A narrative consideration of the appropriateness of traditional storm water management practices (practices other than those that control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site and provisions for implementation and maintenance of measures that the permittee determines to be reasonable and appropriate. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity [see paragraph 3.a.(3) of this section (Description of Potential Pollutant Sources)] shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices, or impoundments.
 - (j) Capping. Where capping of a contaminant source is necessary, the source being capped and materials and procedures used to cap the contaminant source must be identified. In some cases, the elimination of a pollution source through capping contaminant sources may be the most effective control measure for discharges from inactive ore mining and dressing facilities.
 - (k) Treatment. A description of how storm water will be treated prior to discharging to waters of the State if treatment of a storm water discharge is necessary. Storm water treatments include the following: chemical/physical treatment; oil/water separators; and artificial wetlands.
- (5) Comprehensive Site Compliance Evaluation. Procedures for qualified personnel to conduct site compliance evaluations at appropriate intervals specified in the plan, but in no case less than once a year. Such evaluations shall include:
- (a) Visual inspections of areas contributing to a storm water discharge associated with industrial activity for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant

APPENDIX II.G
Permit No.: UTR000000

loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion 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.

- (b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with paragraph 3.a.(3) of this section (Description of Potential Pollutant Sources) and pollution prevention measures and controls identified in the plan in accordance with paragraph 3.a.(4) of this section (Measures and Controls) shall be revised as appropriate within 30 days of such inspection and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation unless additional time is authorized by the *Executive Secretary*
- (c) Preparation of a report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph 3.a.(5)(b) (above) of the permit shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with *Part VI.G.* (Signatory Requirements) of this permit.
- (d) Where compliance evaluation schedules overlap with inspections required under 3.a.(4)(d), the compliance evaluation may be conducted in place of one such inspection.

b. Contents of Plan for Inactive Metal Mining Facilities. The plan shall include, at a minimum, the following items:

- (1) Pollution Prevention Team. Identification of a specific individual or individuals that are responsible for the development, implementation,

APPENDIX II.G
Permit No.: UTR000000

maintenance, and revision of the storm water pollution prevention plan. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the storm water pollution prevention plan at the inactive facility.

- (2) Description of Mining Activities. A description of the mining and associated activities that took place at the site. The description shall report the approximate dates of operation, the total acreage within the mine and/or processing site, an estimate of the number of acres of disturbed area, and the current activities (e.g., reclamation) that are taking place at the facility. A general description of the location of the mining site relative to major transportation routes and communities shall also be provided.
- (3) Description of Potential Pollutant Sources. A description of potential sources that may reasonably be expected to add significant amounts of pollutants (including sediment) to storm water discharges or that may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials that may potentially be significant storm water pollutant sources from the inactive mining site. Each description shall include, at a minimum:
 - (a) Site Map. A generalized site map or maps that depict any of the following that may be applicable: mining/milling site boundaries and access and haul roads; the location of each storm water outfall and an outline of the portions of the drainage area that are within the facility boundaries; areas used for storage of overburden, materials, soils, tailings, or wastes; areas used for outdoor manufacturing, storage, or disposal of materials; any remaining equipment storage, fueling, and maintenance areas; tailings piles/ponds; mine drainage or any other process water discharge points; an estimate of the direction(s) of flow; existing structural controls to reduce pollutants in storm water runoff; and springs, streams, wetlands, and other surface waters. The map must also indicate the types of discharges contained in the drainage areas of the outfalls.
 - (b) Inventory of Exposed Materials. An inventory and narrative description for each outfall of any significant materials that may still be at the site. This description of sources should agree with sources identified on the map.
 - (c) Sampling Data. A summary of existing discharge sampling data

APPENDIX II.G
Permit No.: UTR000000

describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.

- (d) Risk Identification and Summary of Potential Pollutant Sources. For each potential pollutant source at the site the pollutants of concern (e.g., heavy metals) shall be identified and an assessment made of the potential of these pollutant sources to contribute pollutants to storm water discharges.
- (e) Storm Water Diversion. Description of how and where storm water will be diverted away from potential pollutant sources to prevent storm water contamination. Storm water diversions may include the following: interceptor dikes and swales; diversion dikes curbs and berms; pipe slope drains; subsurface drains; drainage/storm water conveyance systems (channels or gutters; open top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector; and culverts) or equivalent measures.
- (f) Sediment and Erosion Control. Identification of areas that, due to topography, activities, or other factors, have a high potential for significant erosion of soil and/or other materials, and measures to be used to limit erosion and/or remove sediment from storm water runoff. The measures to consider include diversion of flow away from areas susceptible to erosion, stabilization methods to prevent or minimize erosion (such as temporary or permanent seeding; vegetative buffer strips; protection of trees; topsoiling; soil conditioning; contouring; mulching; geotextiles (matting; netting; or blankets); riprap; gabions; and retaining walls), structural methods for controlling sediment (such as check dams; rock outlet protection; level spreaders; gradient terraces; straw bale barriers; silt fences; gravel or stone filter berms; brush barriers; sediment traps; grass swales; pipe slope drains; earth dikes; and other controls such as entrance stabilization, waterway crossings or wind breaks; or other equivalent measures).
- (g) Management of Runoff. A narrative consideration of the appropriateness of traditional storm water management practices (practices other than those that control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site and provisions for implementation and maintenance of measures that the permittee determines to be

APPENDIX II.G
Permit No.: UTR000000

reasonable and appropriate. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity [see paragraph 3.b.(3) of this section (Description of Potential Pollutant Sources)] shall be considered when determining reasonable and appropriate measures. Appropriate measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls, snow management activities, infiltration devices, and wet detention/retention devices, or impoundments.

- (h) Capping. Where capping of a contaminant source is necessary, the source being capped and materials and procedures used to cap the contaminant source must be identified. In some cases, the elimination of a pollution source through capping contaminant sources may be the most effective control measure for discharges from inactive ore mining and dressing facilities.
 - (i) Treatment. A description of how storm water will be treated prior to discharging to waters of the State if treatment of a storm water discharge is necessary. Storm water treatments include the following: chemical/physical treatment; oil/water separators; artificial wetlands or other equivalent measures.
 - (j) Recordkeeping and Internal Reporting Procedures. A description of incidents (such as spills, or other discharges), as well as information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.
- (4) Comprehensive Site Compliance Evaluation. Procedures for qualified personnel to conduct site compliance evaluations at appropriate intervals specified in the plan, but, except as provided in paragraph 3.b.(5)(d) (below), in no case less than once a year. Such evaluations shall include:
- (a) Visual inspection of areas contributing to a storm water discharge associated with industrial activity for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures,

APPENDIX II.G
Permit No.: UTR000000

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.

- (b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with paragraph 3.a.(3) of this section (Description of Potential Pollutant Sources) and pollution prevention measures and controls identified in the plan in accordance with paragraph 3.a.(4) of this section (Measures and Controls) shall be revised as appropriate within 30 days of such inspection and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation unless additional time is authorized by the permit issuing authority.
- (c) Preparation of a report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph 3.b.(5)(b) (above) of the permit shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with *Part VI.G.* (Signatory Requirements) of this permit.
- (d) Where annual site compliance evaluations are shown in the plan to be impractical for inactive mining sites due to the remote location and inaccessibility of the site, site evaluations required under this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in 3 years.

4. Numeric Effluent Limitations. There are no additional numeric effluent limitations beyond those described in *Part IV.B* of this permit.

5. Monitoring and Reporting Requirements.

- a. Analytical Monitoring Requirements. During the period beginning January 1, 2007, lasting through December 31, 2007, and the period beginning January 1, 2009,

APPENDIX II.G
Permit No.: UTR000000

lasting through December 31, 2009, copper ore mining and dressing facilities must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 except as provided in paragraphs 5.a.(3) (Sampling Waiver), 5.a.(4) (Representative Discharge), and 5.a.(5) (Alternative Certification). Active copper ore mining and dressing facilities are required to monitor their storm water discharges for the pollutants of concern listed in Table G-1 below. Facilities must report in accordance with 5.b. (Reporting). In addition to the parameters listed in Table G-1 below, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

Table G-1.
Monitoring Requirements for Active Facilities

Pollutants of Concern	Monitoring Cut-Off Concentration
Chemical Oxygen Demand (COD)	120 mg/L
Total Suspended Solids (TSS)	100 mg/L
Nitrate plus Nitrite Nitrogen	0.68 mg/L

- (1) Monitoring Periods. Active copper ore mining and dressing facilities shall monitor samples collected during the sampling periods of: January through March, April through June, July through September, and October through December for the years specified in paragraph *a.* (above).

- (2) Sample Type. A minimum of one grab sample shall be taken. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72-hour storm event interval may also be waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the discharger shall submit with the monitoring

APPENDIX II.G
Permit No.: UTR000000

report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or non-process water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

- (3) Sampling Waiver.
- (a) Adverse Conditions. When a discharger is unable to collect samples within a specified sampling period due to adverse climatic conditions, the discharger shall collect a substitute sample from a separate qualifying event in the next period and submit the data along with data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- (b) Low Concentration Waiver. When the average concentration for a pollutant calculated from all monitoring data collected from an outfall during the monitoring period January 1, 2007, lasting through December 31, 2007, is less than the corresponding value for that pollutant listed in Table G-1 under the column Monitoring Cut-Off Concentration, a facility may waive monitoring and reporting requirements in the monitoring period beginning January 1, 2009, lasting through December 31, 2009. The facility must submit to the *Executive Secretary*, in lieu of the monitoring data, a certification that there has not been a significant change in industrial activity or the pollution prevention measures in area of the facility that drains to the outfall for which sampling was waived.
- (4) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may test the effluent of one of such outfalls and report that the quantitative data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In

APPENDIX II.G
Permit No.: UTR000000

addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan. The permittee shall include the description of the location of the outfalls, explanation of why outfalls are expected to discharge substantially identical effluents, and estimate of the size of the drainage area and runoff coefficient with the *Storm Water Discharge Monitoring Report (SWDMR)*.

- (5) Alternative Certification. A discharger is not subject to the monitoring requirements of this section provided the discharger makes a certification for a given outfall, or on a pollutant-by-pollutant basis in lieu of the monitoring reports required under paragraph *b.* below, under penalty of law, signed in accordance with *Part VI.G.* (Signatory Requirements), that material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, industrial machinery or operations, or significant materials from past industrial activity that are located in areas of the facility within the drainage area of the outfall are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Such certification must be retained in the storm water pollution prevention plan, and submitted to *DWQ* in accordance with *Part V.B.* of this permit. In the case of certifying that a pollutant is not present, the permittee must submit the certification along with the monitoring reports required under paragraph *b.* below. If the permittee cannot certify for an entire period, they must submit the date exposure was eliminated and any monitoring required up until that date. This certification option is not applicable to compliance monitoring requirements associated with effluent limitations.
- b. Reporting. Permittees with active copper ore mining and dressing facilities shall submit monitoring results for each outfall associated with industrial activity or a certification in accordance with sections (3), (4), or (5) above] obtained during the reporting period beginning January 1, 2007, lasting through December 31, 2007, on *Storm Water Discharge Monitoring Report (SWDMR)* form(s) postmarked no later than the 31st day of the following March. Monitoring results [or a certification in accordance with sections (3), (4), or (5) above] obtained during the period beginning January 1, 2009, lasting through December 31, 2009 shall be submitted on *SWDMR* form(s) postmarked no later than the 31st day of the following March. For each outfall, one signed *SWDMR* form must be submitted to the *Executive Secretary* per storm event sampled. Signed copies of *SWDMR*, or said certifications, shall be submitted to the *Executive Secretary* at the address listed in *Part V.B.* of this permit.

APPENDIX II.G
Permit No.: UTR000000

- (1) Additional Notification. In addition to filing copies of *SWDMRs* in accordance with paragraph *b.* (above), active ore mining and dressing facilities with at least one storm water discharge associated with industrial activity through a large or medium municipal separate storm sewer system (systems serving a population of 100,000 or more) must submit signed copies of discharge monitoring reports to the operator of the municipal separate storm sewer system in accordance with the dates provided in paragraph *b.* (above).
- c. Visual Examination of Storm Water Quality. Mining facilities covered under this sector shall perform and document a visual examination of storm water discharges associated with industrial activity from each outfall, except discharges exempted below. The examination must be made during daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event. Mining facilities must examine storm water quality at least once in each of the following periods: January through March; April through June; July through September; and October through December.
- (1) Sample and Data Collection. Examinations shall be made of grab samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for entire permit term.
 - (2) Visual Storm Water Discharge Examination Reports. Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

APPENDIX II.G
Permit No.: UTR000000

- (3) Representative Discharge. When a facility has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the examination data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.
- (4) Adverse Conditions. When a discharger is unable to conduct one of the required visual examinations during the required period as a result of adverse climatic conditions or inaccessibility, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examination. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- (5) Inactive and Unstaffed Site. When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

Appendix C - Inspection Form



Daneros Mine Storm Water Inspection Form

Date of Inspection: _____ Name of Inspector: _____

Signature: _____

Inspection Items	Yes	No
Site Drainage		
- Are the site berms in place and are they controlling runoff?		
- Are diversion ditches free of sediment and controlling off site stormwater?		
- Are the collection ditches conveying onsite stormwater to the sediment ponds?		
- Do the sediment ponds require maintenance, or removal of sediment?		
- Are there visible erosion features?		
Is the site discharging?		
If discharging, is the discharge free of oil, grease, sediment and debris?		
- Are the topsoil piles protected from erosion?		
Potential Pollution Sources		
- Is there fuel on site?		
- Are all the oil products stored in the shop or fuel area?		
Is the drainage from development rock areas being routed to the sediment ponds?		
Has there been any new site grading since the last site inspection?		
Have any areas been reclaimed since the last inspection?		
- Is there stockpile ore on site?		
House Keeping		
Is there trash that needs to be removed from the site?		
Are drip pans used on equipment with leaks?		
General		
Are oils containers properly labeled?		
Are spill kits accessible and properly stocked?		
Is the site kept orderly and free of debris?		
Is the SWPPP available on site?		
Were any recommended corrective actions fixed from the last inspection?		
Is this a comprehensive site inspection?		
Is the site secured when not active?		
Comments and required corrective action		

Appendix D - Emergency Contacts

911	Fire, Police, Ambulance
(800) 424-8802	National Response Center
(801) 536-4123	Utah Department of Environmental Quality
(801) 538-6146	Utah Division of Water Quality
(435) 459-9786	David Turk, Manager Environmental Health and Safety
(970) 739-5742	Race Fisher, Area Manager, Energy Fuels Resources (USA) Inc.
(435) 686-9907	Todd Eldridge, Mine Compliance Technician, Energy Fuels Resources (USA) Inc.

Appendix E – Discharge Notification Form

DISCHARGE NOTIFICATION FORM

Discharge Information			
Company Name:	Energy Fuels Resources (USA) Inc.		
Company Address:	225 Union Blvd. Suite 600 Lakewood, CO 80228		
Company Telephone:	303-974-2140		
Site Name:	Daneros Mine		
Site Location:	Located approximately 4.8 miles southwest of Fry Canyon, Utah in western San Juan County 14 miles off Highway 95. The mine is accessed by the Radium King Road.		
Primary Contact:	Race Fisher, Facility Manager, 970-739-5742		
Type of Oil:		Discharge Date and Time:	
Quantity Released:		Discovery Date and Time:	
Quantity Released to a water body (Including a dry drainage channel)		Discharge Duration:	
Location/Source:			
Actions taken to stop, remove and mitigate impacts of the spill:			
Affected media: Air, Water, Soil, Dry Channel			
Nature of spill: environmental /health effects, damages			
Injuries or evacuation needed?			
Name and Phone Number of Person Completing Form:			
Notification Check List			
Contact Information	Date and Time of Notification	Name of Person Receiving Call	
Spill of any amount			
Race Fisher, Facility Manager, 970-739-5742			
Spill greater than 25 gallons outside of secondary containment not affecting a waterway			
Race Fisher, Facility Manager, 970-739-5742			
Utah DEQ, 801-536-4300			
Spill of any size affecting a waterway			
Race Fisher, Facility Manager, 970-739-5742			
Utah DEQ, 801-536-4300			
National Response Center, 800-424-8802			

Appendix F - Training Signature Sheet

