



Engineering/Remediation
Resources Group, Inc.
616 First Ave, Suite 300
Seattle, WA 98104

P: 206-282-4749
F: 206-282-4789
www.errg.com

July 12, 2012

Ref.: 2010-084

Mr. Pete Jones
On-Scene Coordinator
USDA Forest Service, Region 6
645 Washington Street
Ashland, Oregon 97520

Technical Memorandum
May 2012 Site Inspection Report
Blue Ledge Mine
Rogue River-Siskiyou National Forest

Dear Mr. Jones:

Engineering/Remediation Resources Group, Inc. (ERRG) is submitting this technical memorandum summarizing the May 1, 2012 site inspection of the Blue Ledge Mine site. ERRG performed the site inspection in coordination with operations, maintenance, and monitoring requirements for the Blue Ledge Mine site under the U.S. Department of Agriculture Forest Service Contract No. GS-10F-0294R, Delivery Order No. AG-0489-D-10-0126. For a full list of elements, please see the attached site inspection checklist ([Enclosure 1](#)), overall site plan ([Enclosure 2](#)), and photographic log ([Enclosure 3](#)).

Background

In 2010, ERRG was contracted to perform a removal action to remove waste rock from four waste rock piles (WRPs) near the mine adits. The waste rock was relocated to a newly constructed on-site repository. The repository was capped after the waste rock had been removed from the WRPs. Disturbed soil areas within the reclamation areas were revegetated with native species. Nine pH treatment and sediment basins were constructed below the WRPs to capture sediment and to treat mine drainage prior to discharge into Joe Creek. At the conclusion of waste rock removal activities, reclamation activities were performed at the WRPs and other areas disturbed by the removal action activities, including the North and South Storage Areas, Rock Stockpile Area, and Repository Stockpile Area ([Enclosure 2](#)). The reclamation features require operation and maintenance (O&M) monitoring through May 31, 2015.

Following the removal action, ERRG was contracted to perform O&M of the repository cap and structures constructed to control erosion and treat mine drainage, as outlined in the O&M Plan¹. The O&M Plan includes performing site inspections after rain events generating greater than 0.5 inches of precipitation, as recorded by nearby representative weather stations, and performing monthly site inspections when the site is accessible, defined as April through October.

During each site inspection, ERRG reviews the following elements:

¹ ERRG, "Removal Action Work Plan Non-Time-Critical Removal Action for Former Blue Ledge Mine Site", July 2010

- Integrity of the reclamation areas
- Areas where erosion or deterioration has occurred since the last site visit
- Condition of the erosion control and sediment control measures
- Integrity of constructed site elements (documented via photographs)
- Condition of reclamation plantings
- Needed maintenance and repairs

Summary of Site Inspection

During the May 2012 site inspection, the reclamation areas were observed to be intact and in good functioning condition. ERRG inspected all areas except for WRP 3 due to time constraints. WRP 3 was inspected during a follow-up maintenance visit on May 5, 2012, and results of the follow-up inspection will be summarized in the June 2012 Inspection Report. Generally, minimal erosion had occurred at the site and best management practices to control erosion were in good condition. No additional erosion had occurred since the April inspection.

The repository was in good shape with minimal erosion. Most of the repository's drain outlets were discovered to be covered by soil that eroded from the repository bank below the access road. The drains were dry, so it appears that they were able to drain stormwater that infiltrates the repository cover layer. All other drain outlets were uncovered to provide complete inspection of all drain outlets. No additional erosion had occurred since the April inspection. The repository stockpile area and north storage area were both in good shape with minimal erosion.

Some erosion was observed on the incoming Forest Road 1060 and haul roads (as previously documented during past inspections) and will require maintenance over the summer. Road condition was similar to that observed during the April inspection. Overall, the roads are in very good shape, except for small areas that require some maintenance.

The stockpile and storage areas and WRPs 2, 3, and 4 had minimal erosion, while a significant amount of sediment had eroded from the side of haul road 3 in WRP 1 as previously noted in the April inspection. All of the sediment, however, was captured in sediment basins 1E and 1F. No evidence was observed that sediment had entered Joe Creek. Sediment and debris were also observed in sediment treatment basins 2A and 2B. Sediment treatment basin 3 did not have significant sediment accumulation. Sediment will be removed from all basins in August 2012.

The pH of the water in the basins was near neutral, and water flow through the basins was primarily from snowmelt. The following table shows the pH values for all sediment treatment basins.

Table 1. pH of Sediment/ pH Treatment Basins

| WRP 1/4 | | WRP 2 | | WRP3 | |
|---------|-----|----------|-----|---------|-----|
| 1A | 7.5 | 2A-below | 6.8 | 3-below | 7.4 |
| 1B | 7.5 | 2A-above | 6.8 | 3-above | 7.4 |
| 1C | 7.5 | 2B-below | 7.0 | | |
| 1D | 7.2 | 2B-above | 7.1 | | |
| 1E | 6.8 | | | | |
| 1F | 6.8 | | | | |

Note: Below = sample collected just below the basin

above = sample was collected in the basin.

The pH may have increased as the water flows from 1F down to 1A due to reaction with the limestone in the series of sediment treatment basins. When flows decrease through these sediment basins, any effect of the interaction between water and limestone should be more pronounced when the snowmelt flow has ended and mine drainage is the primary flow. The pH of the water in 2A and 2B decreased, but were still in the neutral range. No impact on pH from the limestone was observed. The pH of the water in sediment treatment basin 3 was higher than observed in treatment basins 1A through 1F, and 2A and 2B. These observations are likely due to high water flow from snowmelt at WRP 3. Limestone fouling will be evaluated during cleanout of the accumulated sediment in August 2012, when water runoff is at the annual minimum flow.

Some of the reclamation area plantings were observed to have died over the winter. Since many plants were just beginning their spring growth, the final determination of plant survival will not be made until late September 2012. Fewer than 50 plants out of 5,428 plants on the repository and repository stockpile have died. Fewer than 30 plants out of 1,366 plants on the north stockpile have died. Water has accumulated and saturated the soil under the bark mulch areas on the repository and may hinder the survival of reclamation plantings. It appeared that animals had browsed on many plants throughout the repository and north stockpile. Application of Big Game Repellent will be performed to prevent further browsing of plants in all areas. Most trees and shrubs planted under cover trees appeared very healthy. Plants in more exposed areas showed signs of stress, but have not died.

Plants in the South Storage Area appeared to be healthy and growing with no mortality. Many maple trees have started to grow from seeds dropped by neighboring maple trees.

Plants on WRP 1, 2, and 4 are just beginning spring growth, and mortality rates were low in these areas. Plants on WRP 3 were not inspected during the initial visit. During the follow-up site visit on May 5, several plants were dead, primarily Douglas Fir. The number of plants was not quantified during the follow-up inspection.

Site access gates and locks are in good condition, and no evidence of unauthorized access was observed during this site inspection. For a full list of elements inspected, please see the attached site inspection checklist and photographic log.

No immediate maintenance or further action is recommended based on the findings of this site inspection. Maintenance that requires heavy equipment will be performed in August 2012 in conjunction with removal of sediment from the sediment treatment basins. Repair and maintenance of minor erosion noted above will be performed during subsequent site inspections.

If you have any questions or need additional information, please do not hesitate to contact me at (206) 512-3171 or mike.hudson@errg.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Hudson", with a long horizontal flourish extending to the right.

Mike Hudson
Project Manager

MH/kj

Enclosure 1 – May 2012 Blue Ledge Mine Inspection Checklist
Enclosure 2 – Site Map
Enclosure 3 – May 2012 Site Inspection Photographic Log

cc: ERRG Project File

Enclosure 1. May 2012 Blue Ledge Mine Inspection Checklist

**BLUE LEDGE MINE
INSPECTION CHECKLIST**

MONTHLY INSPECTION
Month: May, Year: 2012

BLUE LEDGE MINE MONTHLY INSPECTION CHECKLIST

Month: May, Year: 2012

**Blue Ledge Mine Removal Project
Siskiyou County, California
Operation and Maintenance Period**

NOTE: All photographs included in this checklist were taken on May 1, 2012; Refer to Enclosure 3 for photolog.

Repository

1. Inspect the silt fence, wattles, and other BMPs at the repository and repository stockpile area (see Figure P-2). Do BMPs require repair or replacement? Yes* No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: _____

2. Inspect repository cover soil. Is there evidence of excessive or preferential erosion (see Figure P-2)? Yes* No

**If yes, notify project manager and place temporary BMPs to minimize further erosion until a solution can be found. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Excessive erosion was not observed. Minor preferential erosion has occurred below the repository access road. Slash was placed on the minor erosion, which appears to have stopped any additional erosion.

3. Inspect the repository access road (see Figure P-2). Are there any areas of excessive erosion or other areas where the road requires repair? Yes* No

**If yes, notify project manager of potential need for repair.*

Comments: Excessive erosion has not occurred. Rills have developed on the road by the rock stockpile that will require maintenance.

4. Inspect repository leachate sump tank and cap (see Figure P-2). Is the sump and cap in good condition and locked? Is liquid present in the sump? Yes No*

**If no, take several pictures of damage and make repairs to fix or secure prior to leaving site (if possible). If liquid is in the sump, measure the depth (requires a minimum 25-foot tape measure). Collection of a liquid sample may be required for profiling and disposal.*

Comments: Top level of liquid is 267 inches from lip.

5. Inspect anchor trench drainage pipes and the repository underdrain where they daylight (see Figure P-2). Is the screening damaged or is there evidence of the pipes being blocked? Yes* No

**If yes, unblock pipe and/or repair screen.*

Comments: Expose pipe drain outlets.

6. Inspect the repository stormwater drain ditch (see Figure P-2). Is the stormwater drain ditch damaged or is there evidence of any portion of the stormwater drain ditch being blocked? Yes* No

**If yes, unblock ditch.*

Comments: _____

7. Inspect plants in the repository and repository stockpile area (see Figure P-3). Is there evidence that animals have browsed on the plants? Yes* No

**If yes, reapply Big Game Repellant to prevent further browsing. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: Need to apply Big Game Repellant to shrubs and trees on repository and repository stockpile area.

8. Have plants died in the repository and repository stockpile areas (see Figure P-3)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the repository and repository stockpile areas are shown in enclosure : Site Map.*

Comments: Less than 50 plants.

9. Inspect Flexterra and grass seeded areas on the repository (see Figure P-3). Are any repairs needed or invasive species present? Yes* No

**If yes, identify areas for repair or pull weeds and dispose of properly.*

Comments: _____

North Storage Area

1. Inspect road leading to the repository and north storage area (see Figure P-2). Is there evidence of excessive erosion? Are the water bars damaged? Yes* No

**If yes, apply temporary BMPs and make recommendations for repair. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Excessive erosion has not occurred. Some rilling has occurred on the access road leading to the repository. Maintenance will be required. Additional BMPs were added during the winter, which has stopped further rilling.

2. Inspect the silt fence, wattles, and other BMPs at the north storage area (see Figure P-4). Do BMPs require repair or replacement? Yes* No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: _____

3. Inspect Flexterra and grass seeded areas on the north storage area (see Figure P-4). Are any repairs needed or any invasive species present? Yes* No

**If yes, identify areas for repair or pull weeds and dispose of properly.*

Comments: _____

4. Inspect plants in the north storage area (see Figure P-4). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: Apply Big Game Repellent to reduce further browsing.

5. Have any plants died in the north storage area (see Figure P-4)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the north storage area is shown on Figure P-4.*

Comments: 30 plants.

South Storage Area

1. Inspect the silt fence, wattles, and other BMPs at the south staging area (see Figure P-5). Do BMPs require repair or replacement? Yes* No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: No repairs required.

2. Inspect plants in the south staging area. Have animals browsed on plants (see Figure P-5)? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: _____

3. Have any plants died in the south staging area (see Figure P-5)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the south storage area is shown on Figure P-5.*

Comments: _____

4. Inspect Flexterra and grass seeded areas along Joe Creek (see Figure P-5). Are any repairs needed or any invasive species present? Yes* No

**If yes, identify areas for repair or pull weeds and dispose of properly.*

Comments: _____

Rock Stockpile Area

1. Inspect the silt fence, wattles, and other BMPs at the rock stockpile area (see Figure P-6). Do BMPs require repair or replacement? Yes* No

**If yes, repair or replace damaged components and make recommendations to reduce future damage. A listing of approved BMPs for implementation is shown in Appendix H of the SWPPP.*

Comments: Place slash on rills on west slope. _____

2. Inspect plants in the rock stockpile area (see Figure P-6). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: Reapply Big Game Repellent. _____

3. Have any plants died in the rock stockpile area (see Figure P-6)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at the south storage area is shown on Figure P-6.*

Comments: An estimated 5 plants have died of 118. _____

4. Inspect Flexterra and grass seeded areas (see Figure P-6). Are any repairs needed or any invasive species present? Yes* No

**If yes, identify areas for repair or pull weeds and dispose of properly.*

Comments: _____

Forest Service Roads and Haul Roads

1. Are there areas of Forest Service Road 1060 that have experienced excessive erosion? Yes* No

**If yes, document road condition with photographs and install temporary BMPs to help minimize further erosion. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Excessive erosion has not occurred. Several rills have developed over the winter that will require repair during the summer maintenance period. The rill by the water bar is the largest of the rills. _____

2. Are culverts along USFS road 1060 marked and draining properly? Yes No*

**If no, perform necessary maintenance or repair to culvert to return to good working condition.*

Comments: The culverts at the south stockpile and haul road are partially blocked, and sediment should be removed to allow complete flow through the culvert.

3. Inspect haul roads 1, 2, 3, and 4; the miner's trail parking area; and the decommissioned haul roads 2 and 4 (see Figure P-2). Are there areas of excessive erosion? Are water bars damaged?
Yes* No

**If yes, place temporary BMPs and repair damaged water bars. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Several areas of erosion on the side bank of Haul 4. (see photographic log). These areas will require additional berms, water bars, and maintenance on the side bank to reduce further erosion.

4. Inspect BMPs along haul roads 1, 2, 3, and 4; the miner's trail parking area; and the decommissioned haul roads 2 and 4 (see Figure P-2). Are BMPs in good condition? Yes No*

**If no, repair and/or replace BMPs as necessary. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Silt fence need maintenance at crossings. Erosion of side banks will also require repair (see above inspection item 3).

5. Inspect areas of haul roads 1, 2, 3, and 4; the miner's trail parking area; and the decommissioned haul roads 2 and 4 (see Figure P-2). Record grass growth progress. Are there bare areas that require reseeding? Yes* No

**If yes, reseed bare areas. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: _____

Waste Rock Pile 1

1. Inspect log wattles, straw wattles, and other BMPs at the reclamation areas on WRP 1 (see Figure P-7). Are all BMPs in good condition? Yes No*

**If no, repair and/or replace BMPs as necessary. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: _____

2. Inspect Flexterra and grass seeded areas at the reclamation areas on WRP 1 (see Figure P-7). Are any repairs needed or any invasive species present? Yes* No

**If yes, identify areas for repair or pull weeds and dispose of properly.*

Comments: _____

3. Inspect plants at the reclamation areas on WRP 1 (see Figure P-7). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: _____

4. Have any plants at the reclamation areas died on WRP 1 (see Figure P-7)? Have animals browsed on the plants? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at WRP 1 is shown on Figure P-7.*

Comments: Apply Big Game Repellant to discourage more browsing. An approximate 25 plants have died.

5. Are there areas of excessive erosion on WRP 1 (see Figure P-7)? Yes* No

**If yes, apply temporary BMPs. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: A small landslide has deposited sediment into sediment treatment basin 1F.

6. Inspect each sediment treatment basin at WRP 1 (see Figure P-7). For each basin, record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment Treatment Basin 1A (closest to the Joe Creek):

Accumulated sediment: 25% or less

Fouled limestone: N/A

pH below basin 1A: 7.5

Water depth: 1.5 feet deep

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 1B:

Accumulated sediment: 25% or less

Fouled limestone: N/A

pH below basin 1B: 7.5

Water depth: Water is leaking around liner at 1B, not spilling over liner (water ~1 foot deep).

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 1C:

Accumulated sediment: 50%

Fouled limestone: N/A

pH below basin 1C: 7.5

Water depth: 2 feet deep

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 1D:

Accumulated sediment: 33%

Fouled limestone: N/A

pH below basin 1D: 7.2

Water depth: 2 feet deep

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 1E:

Accumulated sediment: 90%

Fouled limestone: N/A

pH below basin 1E: 6.8

Water depth: Water flowing through basin

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 1F:

Accumulated sediment: 100% due to landslide and sediment

Fouled limestone: N/A

pH below basin 1F: 6.8

pH above basin 1F: 6.8

Water depth: Full water flowing through basin

Excessive erosion around the basin? Yes* No

Waste Rock Pile 2

1. Inspect wattles, silt fence, and other BMPs at the reclamation areas on WRP 2 (see Figure P-8). Are all BMPs in good condition? Yes No*

**If no, repair and/or replace BMPs as necessary. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: _____

2. Inspect plants at the reclamation areas on WRP 2 (see Figure P-8). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: _____

3. Have any plants at the reclamation areas died on WRP 2 (see Figure P-8)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at WRP 2 is shown on Figure P-8.*

Comments: No plants noted dead _____

4. Are there areas of excessive erosion on WRP 2? Yes* No

**If yes, apply temporary BMPs. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: No areas have excessive erosion, but the sediment basins have accumulated significant sediment.

5. Inspect each sediment treatment basin at WRP 2 (see Figure P-8). For each basin, record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of the water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment Treatment Basin 2A:

Accumulated sediment: 50% – half full of slide debris

Fouled limestone: N/A

pH below basin 2A: 6.8

pH above basin 2A: 6.8

Water depth: Basin half full; water flowing through basin

Excessive erosion around the basin? Yes* No

Sediment Treatment Basin 2B:

Accumulated sediment: 50% – half full of slide debris

Fouled limestone: N/A

pH below basin 2B: 7.0

pH above basin 2B: 7.1

Water depth: Basin half full; water flow through basin

Excessive erosion around the basin? Yes* No

Waste Rock Pile 3

1. Inspect log wattles, straw wattles, and other BMPs at the reclamation areas on WRP 3 (see Figure P-8). Are all BMPs in good condition? Yes No*

**If no, repair and/or replace BMPs as necessary. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: Some wattles require repair. _____

2. Inspect plants at the reclamation areas on WRP 3 (see Figure P-8). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: Area was not inspected on May 1 due to time constraints. This area was inspected during follow-up site visit on May 5. There was no browsing on the plants.

3. Have any plants at the reclamation areas died on WRP 3 (see Figure P-8)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at WRP 3 is shown on Figure P-8.*

Comments: Area was not inspected on May 1 due to time constraints. This area was inspected during follow-up site visit on May 5. An estimated 300 plants of 1067 have died.

4. Are there areas of excessive erosion on WRP 3? Yes* No

**If yes, apply temporary BMPs. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: No areas of excessive erosion were visible from Sediment/ pH treatment basin 3.

5. Inspect each sediment treatment basin at WRP 3 (see Figure P-8). For each basin, record the volume of sediment accumulated (as a percentage of capacity), the amount of fouled limestone (in inches), and the pH of the water as listed below (if any). Record and photograph any excessive erosion in or around the sediment basin.

Sediment Treatment Basin 3:

Accumulated sediment: <25%

Fouled limestone: N/A

pH below basin 3: 7.4

pH above basin 3: 7.4

Water depth: 1 foot deep

Excessive erosion around the basin? Yes* No

Waste Rock Pile 4

1. Inspect log wattles, straw wattles, and other BMPs at the reclamation areas on WRP 4 (see Figure P-7). Are all BMPs in good condition? Yes No*

**If no, repair and/or replace BMPs as necessary. A listing of approved BMPs for implementation is shown in Appendix G of the SWPPP.*

Comments: _____

2. Inspect plants at the reclamation areas on WRP 4 (see Figure P-7). Have animals browsed on the plants? Yes* No

**If yes, reapply Big Game Repellent to prevent further browsing. A listing of grass seeds, fertilizers, animal repellents, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: Although no browsing noted, BGR to be applied to prevent browsing

3. Have any plants at the reclamation areas died on WRP 4 (see Figure P-7)? Yes* No

**If yes, estimate number of plants and record it in the comments. The total number of plants installed at WRP 4 is shown on Figure P-8.*

Comments: Approximately 50 plants.

4. Are there areas of excessive erosion on WRP 4? Yes* No

**If yes, apply temporary BMPs. A listing of grass seeds, fertilizers, animal repellants, and other reclamation products is shown in Appendix G of the SWPPP.*

Comments: _____

5. Inspect the reinforced slope stability fabric area at WRP 4 (see Figure P-7). Is the fabric in good condition? Yes No*

**If no, perform maintenance or repair.*

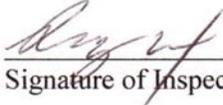
Comments: _____

Additional Notes (Time, temperature, wind direction, evidence of unauthorized access, condition of green gate, locks, and other observations)

Sediment sample 3S was collected at the check dam between WRP 3 and treatment basin. The weather was sunny. The temperature was approximate 60F, and the gates were in good condition with no unauthorized access noted.

Randy West
Name of Inspector(s)

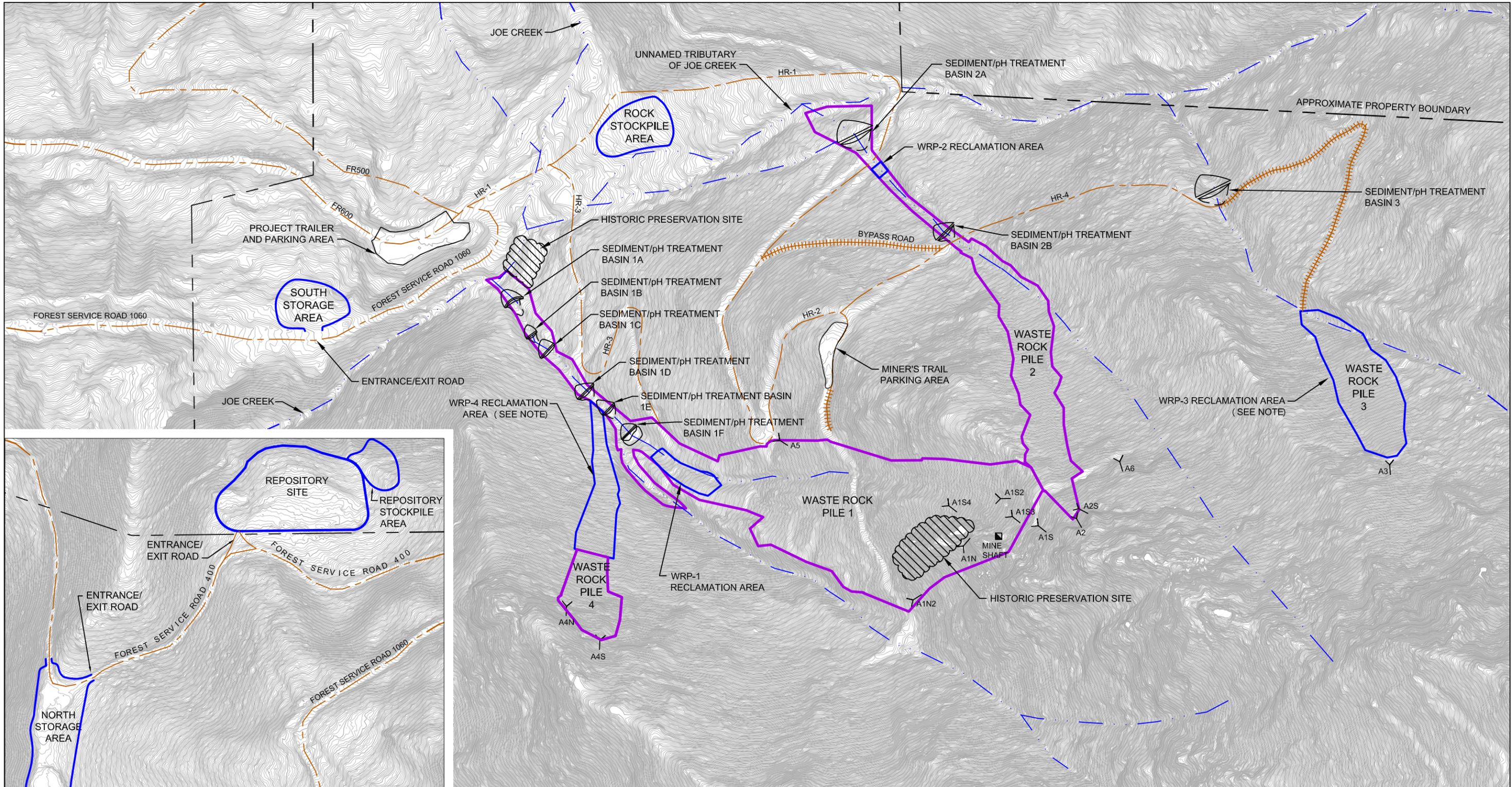
Engineering/Remediation Resources Group, Inc. (ERRG)
Company


Signature of Inspector

5-1-2012
Date of Inspection

Enclosure 2. Overall Site Plan

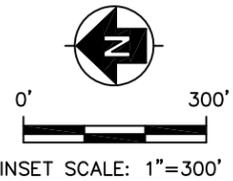
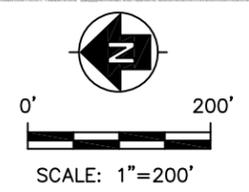
FILE NAME: N:\Graphics\2010\2010-084 USFS Blueledge Mine\N_Maps and Drawings\Final Report\Overall Site Plan 2.dwg LAYOUT NAME: 2 PLOTTED: Tuesday, May 29, 2012 - 11:08am



- LEGEND:**
- FOREST SERVICE/HAUL ROAD
 - DECOMMISSIONED HAUL ROAD
 - PROPERTY BOUNDARY
 - RECLAMATION AREA
 - STREAM
 - WASTE ROCK BOUNDARY REMOVAL LIMIT

- APPROXIMATE LOCATION OF ADIT
- APPROXIMATE LOCATION OF MINE SHAFT

NOTES:
 WRP-3 AND WRP-4 RECLAMATION AREAS ARE ALSO THE WASTE ROCK BOUNDARY REMOVAL LIMITS.
 FR = FOREST SERVICE ROAD
 HR = HAUL ROAD



SOURCE: URS BLUE LEDGE MINE REMOVAL ACTION, DRAWING NO. 101, SHEET 7 OF 60, CAD FILE NO. 101, DATED: 2/2010.

ERRG Engineering/Remediation Resources Group, Inc.
 4585 Pacheco Blvd, Suite 200
 Martinez, California 94553
 (925) 969-0750

| | | | | | |
|-----------|-----------------------------------|-------------------|--------------|-------------|-----------|
| CLIENT: | USDA FOREST SERVICE | OVERALL SITE PLAN | | | |
| LOCATION: | BLUE LEDGE MINE REMOVAL ACTION | DRAWN BY: | CHECKED BY: | PROJECT NO. | ENCLOSURE |
| | | RDB 11/18/11 | JGS 11/21/11 | 2010-084 | 2 |

Enclosure 3. May 2012 Site Inspection Photographic Log



Photograph 1: Erosion on FS Road 1060.

Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 2: Repository underdrain outflow at base of repository.

Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 3: **Erosion along repository access road.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 4: **Repository access road. Top of slope is hydroseeded, lower portions are planted and covered with bark mulch.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 5: **Slope of repository showing straw wattles on hillside with log wattles and straw bales at base.**

Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 6: **Repository stockpile reclamation area.**

Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 7: **V-ditch along top of repository access road.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG)

Date: May 1, 2012



Photograph 8: **North stockpile reclamation area.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
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Date: May 1, 2012



Photograph 9: **Erosion at north stockpile area.**
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Photograph 10: **Spring water runoff through rock stockpile area.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
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Photograph 11: **Erosion control measures on access road leading to sediment basins under waste rock pile 1.**
Blue Ledge Mine, Rogue River - Siskiyou National Forest, CA
Photographed by: Brian Wetzsteon (ERRG) Date: May 1, 2012



Photograph 12: **Erosion control fabric and log wattle on waste rock pile 4.**
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Photograph 13: Portion of hillside under waste rock pile 1 that slid into sediment basin 1F.

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Photograph 14: Joe Creek at former first creek crossing.
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Photograph 15: **Sediment basin 1A, looking downhill.**
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Photograph 16: **Sediment basin 1B.**
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Photograph 17: **Sediment basin 1C.**
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Photograph 18: **Sediment basin 1D.**
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Photograph 19: **Sediment basin 1E.**
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Photograph 20: **Armored stream channel below waste rock pile 4, looking uphill.**
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Photograph 21: **Sediment basin 1F.**
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Photograph 22: **Landslide above Sediment Basin 1F.**
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