

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #5

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located West of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges south into Cow Canyon drainage.

EMBANKMENT

- | | | | | |
|---|-----------|-----------------|----------|-------------|
| 1. Adequacy of the vegetative cover: | Excellent | Moderate | Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | None |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes _____ | | No _____ | X _____ |
| At the principal spillway inlet? | Yes _____ | | No _____ | X _____ |
| 4. Erosion of the downstream toe of the embankment? | Yes _____ | | No _____ | X _____ |

Cause of erosion can be attributed to: _____

5. Is seepage occurring through the dam? Yes _____ No X

Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

- | | | |
|--|-----------------------|-------------------------|
| 1. Is the principal spillway system in working order? | Yes <u> X </u> | No <u> </u> |
| 2. Is the inlet free of debris and restrictive material? | Yes <u> X </u> | No <u> </u> |
| 3. Is the discharge outlet free of restrictive material? | Yes <u> X </u> | No <u> </u> |
| 4. Is erosion occurring at the discharge outlet? | Yes <u> </u> | No <u> X </u> |

Evaluate the severity: Extensive Moderate Just Starting **None**

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Sediment in pond does not appear to be over capacity by visual inspection.

OTHER OBSERVATIONS

Pond was empty at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #6

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges south into Jeff Canyon drainage.

EMBANKMENT

- | | | | | |
|---|------------------|----------|----------|-------------|
| 1. Adequacy of the vegetative cover: | <u>Excellent</u> | Moderate | Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | <u>None</u> |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes _____ | | No _____ | X _____ |
| At the principal spillway inlet? | Yes _____ | | No _____ | X _____ |
| 4. Erosion of the downstream toe of the embankment? | Yes _____ | | No _____ | X _____ |
| Cause of erosion can be attributed to: _____ | | | | |
| _____ | | | | |
| 5. Is seepage occurring through the dam? | Yes _____ | | No _____ | X _____ |
| Could this seepage cause potential instability? _____ | | | | |
| _____ | | | | |

PRINCIPAL SPILLWAY

- | | | | |
|--|-----------|----------|---------------|
| 1. Is the principal spillway system in working order? | Yes _____ | X _____ | No _____ |
| 2. Is the inlet free of debris and restrictive material? | Yes _____ | X _____ | No _____ |
| 3. Is the discharge outlet free of restrictive material? | Yes _____ | X _____ | No _____ |
| 4. Is erosion occurring at the discharge outlet? | Yes _____ | | No _____ |
| | | X _____ | |
| Evaluate the severity: | Extensive | Moderate | Just Starting |
| | | | <u>None</u> |

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Visual observation

OTHER OBSERVATIONS

Pond was empty at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #7

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges south into Jeff Canyon drainage.

EMBANKMENT

- | | | | | |
|---|------------------|----------|-----|-------------|
| 1. Adequacy of the vegetative cover: | <u>Excellent</u> | Moderate | Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | <u>None</u> |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes | | No | <u>X</u> |
| At the principal spillway inlet? | Yes | | No | <u>X</u> |
| 4. Erosion of the downstream toe of the embankment? | Yes | | No | <u>X</u> |

Cause of erosion can be attributed to: _____

5. Is seepage occurring through the dam? Yes _____ No X

Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

- | | | | | |
|--|-----|----------|----|----------|
| 1. Is the principal spillway system in working order? | Yes | <u>X</u> | No | _____ |
| 2. Is the inlet free of debris and restrictive material? | Yes | <u>X</u> | No | _____ |
| 3. Is the discharge outlet free of restrictive material? | Yes | <u>X</u> | No | _____ |
| 4. Is erosion occurring at the discharge outlet? | Yes | _____ | No | <u>X</u> |

Evaluate the severity: Extensive Moderate Just Starting None

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Visual observation

OTHER OBSERVATIONS

Pond empty at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #8

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges south into Jeff Canyon drainage.

EMBANKMENT

- | | | | | |
|---|------------------|----------|----------|-------------|
| 1. Adequacy of the vegetative cover: | <u>Excellent</u> | Moderate | Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | <u>None</u> |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes _____ | | No _____ | X _____ |
| At the principal spillway inlet? | Yes _____ | | No _____ | X _____ |
| 4. Erosion of the downstream toe of the embankment? | Yes _____ | | No _____ | X _____ |
| Cause of erosion can be attributed to: _____ | | | | |
| _____ | | | | |
| 5. Is seepage occurring through the dam? | Yes _____ | | No _____ | X _____ |
| Could this seepage cause potential instability? _____ | | | | |
| _____ | | | | |

PRINCIPAL SPILLWAY

- | | | | |
|--|-----------|----------|---------------|
| 1. Is the principal spillway system in working order? | Yes _____ | X _____ | No _____ |
| 2. Is the inlet free of debris and restrictive material? | Yes _____ | X _____ | No _____ |
| 3. Is the discharge outlet free of restrictive material? | Yes _____ | X _____ | No _____ |
| 4. Is erosion occurring at the discharge outlet? | Yes _____ | | No _____ |
| | | X _____ | |
| Evaluate the severity: | Extensive | Moderate | Just Starting |
| | | | <u>None</u> |

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Visual observation

OTHER OBSERVATIONS

Pond empty at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #9 (North)

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges north into a small unnamed drainage.

EMBANKMENT

- | | | | | |
|---|-----------|----------|---|--|
| 1. Adequacy of the vegetative cover: | Excellent | Moderate | <input checked="" type="checkbox"/> Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | <input checked="" type="checkbox"/> None |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes | _____ | No | <u>X</u> |
| At the principal spillway inlet? | Yes | _____ | No | <u>X</u> |
| 4. Erosion of the downstream toe of the embankment? | Yes | _____ | No | <u>X</u> |

Cause of erosion can be attributed to: _____

- | | | | | |
|--|-----|-------|----|----------|
| 5. Is seepage occurring through the dam? | Yes | _____ | No | <u>X</u> |
|--|-----|-------|----|----------|

Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

- | | | | | |
|--|-----|----------|----|----------|
| 1. Is the principal spillway system in working order? | Yes | <u>X</u> | No | _____ |
| 2. Is the inlet free of debris and restrictive material? | Yes | <u>X</u> | No | _____ |
| 3. Is the discharge outlet free of restrictive material? | Yes | <u>X</u> | No | _____ |
| 4. Is erosion occurring at the discharge outlet? | Yes | _____ | No | <u>X</u> |

Evaluate the severity: Extensive Moderate Just Starting ☒ None

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Visual observation

OTHER OBSERVATIONS

Pond empty at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito

NPDES ID. No.: Pond #9A (South)

Inspection Period: First Quarter 2021

Inspection Date: 3/17/2021

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-2002. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary discharges south into Jeff Canyon.

EMBANKMENT

- | | | | | |
|---|-----------|-----------------|----------|-------------|
| 1. Adequacy of the vegetative cover: | Excellent | Moderate | Few | Poor |
| 2. Erosion forming Gullies: | Extensive | Some | Few | None |
| 3. Is wave action causing erosion: | | | | |
| On the upstream embankment? | Yes _____ | | No _____ | X _____ |
| At the principal spillway inlet? | Yes _____ | | No _____ | X _____ |
| 4. Erosion of the downstream toe of the embankment? | Yes _____ | | No _____ | X _____ |

Cause of erosion can be attributed to: _____

5. Is seepage occurring through the dam? Yes _____ No X

Could this seepage cause potential instability?_____

PRINCIPAL SPILLWAY

- | | | |
|--|-----------------------|----------------------|
| 1. Is the principal spillway system in working order? | Yes <u> X </u> | No <u> </u> |
| 2. Is the inlet free of debris and restrictive material? | Yes <u> X </u> | No <u> </u> |
| 3. Is the discharge outlet free of restrictive material? | Yes <u> X </u> | No <u> </u> |
| 4. Is erosion occurring at the discharge outlet? | Yes <u> </u> | No <u> X </u> |

Evaluate the severity: Extensive Moderate Just Starting **None**

EMERGENCY SPILLWAY

1. Does it appear that the emergency spillway has discharged water since the last inspection?

YES _____ NO X _____

2. Is erosion occurring at any section of the emergency spillway?

YES _____ NO X _____

SEDIMENT STORAGE CAPACITY

1. Has the design storage capacity of the reservoir been surpassed?

YES _____ NO X _____

Explain: Visual observation

OTHER OBSERVATIONS

Pond was not holding water at time of inspection.

QUARTERLY SEDIMENTATION POND INSPECTION REPORT
Lorencito Canyon Mine- March 17, 2021



Pond 6 – South Facing Embankment



Pond 7 – South Facing Embankment



Pond 9



Pond 9a

Certification

This inspection was conducted by Vince Massarotti, a qualified professional and MSHA certified inspector of earth and rock-fill embankments, waste banks and impoundments, under the direction of Mr. Randal S. Simpson, a registered professional engineer licensed in the State of Colorado.

This is to certify, to the best of my knowledge and belief, that maintenance, since the previous certification and as determined during this inspection and discussions with mine personnel, is in accordance with designs as approved by the Division of Reclamation, Mining and Safety.

Vince Massarotti
Inspector

3-24-2021
Date



Randal S. Simpson
Professional Engineer

03-24-2021
Date

Inspections completed in compliance with Rule 4.09.1(11)(b) must be submitted to the Division within two weeks of completion.