QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17) rd

Mine: Lorencito
NPDES ID. No.: Pond #9 (North)
Inspection Period: First Quarter 2019
Inspection Date: 3/29/2019 12:15 – 64°

General Description or Reference to Site Plan:

This pond is located north-east of the area of mining scheduled for 2001-02. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary spillway discharges north into a small unnamed 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 ✓
At the principal spillway inlet? Yes _____ No ✓

4). Erosion of the downstream toe of the embankment? Yes _____ No ✓
Cause of erosion can be attributed to: _____

5). Is seepage occurring through the dam? Yes _____ No ✓
Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No N/A

2). Is the inlet free of debris and restrictive material? Yes ✓ No N/A

3). Is the discharge outlet free of restrictive material? Yes ✓ No N/A

4). Is erosion occurring at the discharge outlet? Yes _____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

Pond: 9-North

EMERGENCY SPILLWAY

1). Does it appear that the emergency spillway has discharged water since the last inspection?
Yes _____ No ✓

2). Is erosion occurring at any section of the emergency spillway?
Yes _____ No ✓
Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No ✓
Explain: _____
Visual observation

OTHER OBSERVATIONS

Limited inflow during the winter - water level diminished by evaporation

Ronald A Thompson
MSHA Qualified Impoundment Inspector

3/29/2019
Date

QUARTERLY SEDIMENT POND INSPECTION REPORT
Lorencito Canyon Mine – March 29, 2019

Pond 6

Pond 9A (South)

Pond 9B (North)

Pond 8

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito
NPDES ID. No.: Pond #5
Inspection Period: First Quarter 2019
Inspection Date: 3/29/19

General Description or Reference to Site Plan:

This pond is located West of the area of mining scheduled for 2001-02. 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 ✓
At the principal spillway inlet? Yes _____ No ✓

4). Erosion of the downstream toe of the embankment' Yes _____ No ✓
Cause of erosion can be attributed to: _____

5). Is seepage occurring through the dam? Yes _____ No ✓
Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No _____

2). Is the inlet free of debris and restrictive material? Yes ✓ No _____

3). Is the discharge outlet free of restrictive material? Yes ✓ No _____

4). Is erosion occurring at the discharge outlet? Yes _____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

Pond: 5

EMERGENCY SPILLWAY

1). Does it appear that the emergency spillway has discharged water since the last inspection?
Yes _____ No ✓

2). Is erosion occurring at any section of the emergency spillway?
Yes _____ No ✓
Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No _____
Explain: Not Verified
Should be surveyed for next quarter

OTHER OBSERVATIONS

By observation a significant inlet sediment delta has formed. The pond should be surveyed as this may impact sediment storage capacity limits.

Ronald G Thompson
MSHA Qualified Impoundment Inspector

3/29/2019
Date

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito
NPDES ID. No.: Pond #6
Inspection Period: First Quarter 2019
Inspection Date: 3/29/19

General Description or Reference to Site Plan:

This pond is located South of the area of mining scheduled for 2001-02. 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: Excellent (Moderate) Few Poor

2). Erosion forming Gullies: Extensive Some (Few) None

3). Is wave action causing erosion:
On the Upstream embankment? Yes _____ No ✓
At the principal spillway inlet? Yes _____ No ✓

4). Erosion of the downstream toe of the embankment' Yes _____ No ✓
Cause of erosion can be attributed to: _____

5). Is seepage occurring through the dam? Yes _____ No ✓
Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No _____

2). Is the inlet free of debris and restrictive material? Yes ✓ No _____

3). Is the discharge outlet free of restrictive material? Yes ✓ No _____

4). Is erosion occurring at the discharge outlet? Yes _____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

EMERGENCY SPILLWAY Pond: 6

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

Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No X

Explain: _____
Visual Observation

OTHER OBSERVATIONS

Water level is about 18 below base of Primary Discharge riser.

Ronald A Thompson
MSHA Qualified Impoundment Inspector

3/29/2019
Date

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito
NPDES ID. No.: Pond #7
Inspection Period: First Quarter 2019
Inspection Date: 3/29/19

General Description or Reference to Site Plan:

This pond is located south of the area of mining scheduled for 2001-02. 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: Excellent (Moderate) Few Poor

2). Erosion forming Gullies: Extensive Some (Few) None

3). Is wave action causing erosion:
On the Upstream embankment? Yes _____ No ✓
At the principal spillway inlet? Yes _____ No ✓

4). Erosion of the downstream toe of the embankment' Yes _____ No ✓
Cause of erosion can be attributed to: _____

5). Is seepage occurring through the dam? Yes _____ No ✓
Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No _____

2). Is the inlet free of debris and restrictive material? Yes ✓ No _____

3). Is the discharge outlet free of restrictive material? Yes ✓ No _____

4). Is erosion occurring at the discharge outlet? Yes _____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

Pond: 7

EMERGENCY SPILLWAY

1). Does it appear that the emergency spillway has discharged water since the last inspection?
Yes _____ No ✓

2). Is erosion occurring at any section of the emergency spillway?
Yes _____ No ✓

Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No ✓

Explain: _____

Visual Observation

OTHER OBSERVATIONS

Appears to be no significant inflow with new sediment deposition since last inspection.

Ronald L Thompson
MSHA Qualified Impoundment Inspector

3/29/2019
Date

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito
NPDES ID. No.: Pond #8
Inspection Period: First Quarter 2019
Inspection Date: 3/29/19 1:10 pm 64°F

General Description or Reference to Site Plan:

This pond is located north of the area of mining scheduled for 2001-02. 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 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 ✓
At the principal spillway inlet? Yes _____ No ✓

4). Erosion of the downstream toe of the embankment? Yes _____ No ✓
Cause of erosion can be attributed to: _____

5). Is seepage occurring through the dam? Yes _____ No ✓
Could this seepage cause potential instability? _____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No _____

2). Is the inlet free of debris and restrictive material? Yes ✓ No _____

3). Is the discharge outlet free of restrictive material? Yes ✓ No _____

4). Is erosion occurring at the discharge outlet? Yes _____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

Pond: 8

EMERGENCY SPILLWAY

1). Does it appear that the emergency spillway has discharged water since the last inspection?
Yes _____ No ✓

2). Is erosion occurring at any section of the emergency spillway?
Yes _____ No ✓

Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No ✓

Explain: Visual observation

OTHER OBSERVATIONS

Water level has lowered to about 2 foot below base of Primary Discharge riser.

Ronald G Thompson
MSHA Qualified Impoundment Inspector

3/29/2019
Date

QUARTERLY SEDIMENTATION POND INSPECTION REPORT

CDMR Rule 4.05.9(17)

Mine: Lorencito
NPDES ID. No.: Pond #9A (South)
Inspection Period: First Quarter 2019
Inspection Date: 3/29/19 12:40 – 64°

General Description or Reference to Site Plan:
This pond is located south-east of the area of mining scheduled for 2001-02. The pond is partially incised into bedrock and the embankment keyed into bedrock. Side slopes are less than 2H:1V. The primary spillway 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 ✓
At the principal spillway inlet? Yes ____ No ✓

4). Erosion of the downstream toe of the embankment? Yes ____ No ✓
Cause of erosion can be attributed to: ____

5). Is seepage occurring through the dam? Yes ____ No ✓
Could this seepage cause potential instability? ____

PRINCIPAL SPILLWAY

1). Is the principal spillway system in working order? Yes ✓ No ____

2). Is the inlet free of debris and restrictive material? Yes ✓ No ____

3). Is the discharge outlet free of restrictive material? Yes ✓ No ____

4). Is erosion occurring at the discharge outlet? Yes ____ No ✓
Evaluate the severity: Extensive Moderate Just starting None

Pond: 9-South

EMERGENCY SPILLWAY

1). Does it appear that the emergency spillway has discharged water since the last inspection?
Yes _____ No ✓

2). Is erosion occurring at any section of the emergency spillway?
Yes _____ No ✓

Describe extent: _____

SEDIMENT STORAGE CAPACITY

1). Has the design storage capacity of the reservoir been surpassed?
Yes _____ No ✓

Explain: _____

Visual observation

OTHER OBSERVATIONS

Pond has minimal water at the base of the pond.

MSHA Qualified Impoundment Inspector

3/29/2019
Date