



TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

December 10, 2020

Mrs. Janet Binns
Environmental Protection Specialist
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

**RE: New Horizon Mine
Permit No. C-1981-008
2020 Annual Impoundment Inspections**

Dear Mrs. Binns:

Elk Ridge Mining and Reclamation, LLC (Elk Ridge) operates the New Horizon Mine. Tri-State Generation and Transmission Association, Inc. (Tri-State) is the parent company of Elk Ridge. The New Horizon Mine operates under Colorado Division of Reclamation, Mining and Safety (CDRMS) Permit No. C-1981-008.

In accordance with Rule 4.05.9(17), Tri-State is submitting the enclosed annual impoundment inspections on behalf of Elk Ridge.

If you have any questions about the enclosed quarterly impoundment reports, please contact Tony Tennyson at (970) 825-1232 at your convenience.

Sincerely,

DocuSigned by:
Daniel Casiraro
B70D69F114324DE...

Dan Casiraro
Senior Manager
Environmental Services

DJC:TT:der

Enclosures

cc: Frank Ferris (via email)
Chris Gilbreath (via email)
Tony Tennyson (via email)
G474-11.3(21)b-9

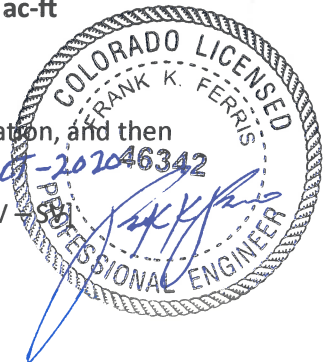
2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**
 Pond Name: **Pond 012**
 NPDES Permit & Outfall #: **CO-0000213**
 Date Inspected: **14-October-2020**
 Location Description: **2 miles NW of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**
 Pond Type: **Partly Incised**
 CDRM & S #: **C-1981-008**
 Date Last Inspected: **15-October-2019**
 Legal Location: **Sec 36 of T47N R16W**
 Inspector's Name: **Frank Ferris**

Pond Capacity Data

As Built Pond Embankment elev.: **5608.5**
 As Built Pond Emergency Spillway elev.: **NA**
 As Built Pond Capacity (pond bottom to primary spillway) per As Built **4.9 ac-ft**
 Existing Pond Capacity (pond bottom to primary spillway): As Built Volume - SV = **4.75 ac-ft**
 Sediment Volume (SV) unchanged: **3 areas = ~0.15 ac-ft**
 Surface Water elev. **5596.5** - As Built Pond Bottom elev. **5596.5** = Water Depth **0 ft**
 Water Volume (WV) in Pond **0 ac-ft** (using as built capacity table & surface water elevation, and then subtracting sediment volume under water level)
 Pond Capacity Available below primary spillway **4.75 ac-ft** [As Built Pond Capacity - WV = SV]
 Inflow volume from 10-yr 24-hr storm runoff event **3.41 ac-ft**



Circle or Write appropriate Response

- | | | | | |
|-----|---|----------|----------|----------|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | X | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | X | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | X | N/A |
| 4. | Major erosion problems _____ | Yes | X | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | X | N/A |
| 6. | Water impounded against toe _____ | Yes | X | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | X | N/A |
| | b) Decant system _____ | Yes | X | N/A |
| | c) Diversion Ditches _____ | Yes | X | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | X | N/A |
| | b) Decant system _____ | Yes | X | N/A |
| 9. | Trash racks clear and in place _____ | X | No | N/A |
| 10. | Monitoring instrumentation _____ | Yes | No | X |

Comments: **Sediment accumulation in 3 areas was = 0.18 ac-ft. 2020 -- 50 cu-yd of sediment was removed from NW corner = ~.03 ac-ft. Thus, sediment accumulation is 0.18 - 0.03 = 0.15 ac-ft**

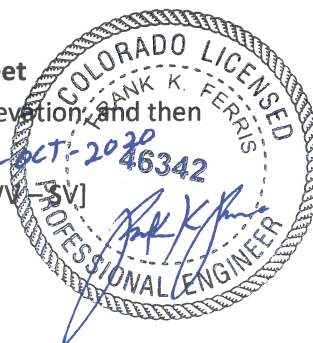
2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**
 Pond Name: **Pond 013**
 NPDES Permit & Outfall #: **CO-0000213**
 Date Inspected: **14-October-2020**
 Location Description: **2 miles West of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**
 Pond Type: **Partly Incised**
 CDRM & S #: **C-1981-008**
 Date Last Inspected: **15-October-2019**
 Legal Location: **Sec 36 of T47N R16W**
 Inspector's Name: **Frank Ferris**

Pond Capacity Data

As Built Pond Embankment elev.: **5560.4** As Built Pond Bottom elev.: **5548.0**
 As Built Pond Emergency Spillway elev.: **5557.0** As Built Pond Primary Spillway elev.: **5555.0**
 As Built Pond Capacity (pond bottom to primary spillway) per As Built **6.14 ac-ft**
 Existing Pond Capacity (pond bottom to primary spillway): As Built Volume - SV = **6.14 ac-ft**
 Sediment Volume (SV) at Inspection: **no change since as-built**
 Surface Water elev. **5553.3** As Built Pond Bottom elev. **5548.0** = Water Depth **5.3 feet**
 Water Volume (WV) in Pond **3.9 ac-ft** (using as built capacity table & surface water elevation, and then subtracting sediment volume under water level)
 Pond Capacity Available below primary spillway **2.24 ac-ft** [As Built Pond Capacity - WV - SV]
 Inflow volume from 10-yr 24-hr storm runoff event **2.7 ac-ft**



Circle or Write appropriate Response

- | | | | | |
|-----|--|----------------|---------------|-----|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | No | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | No | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | No | N/A |
| 4. | Major erosion problems _____ | Yes | No | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | No | N/A |
| 6. | Water impounded against toe _____ | Yes | No | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | No | N/A |
| | b) Decant system _____ | Yes | No | N/A |
| | c) Diversion Ditches _____ | Yes | No | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | No | N/A |
| | b) Decant system _____ | Yes | No | N/A |
| 9. | Trash racks clear and in place _____ | Yes | No | N/A |
| 10. | Monitoring instrumentation Flume in place & functioning | Yes | No | N/A |

Comments: **About a foot of soil was added to the settled embankment over the emergency spillway culverts.**

2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**

Pond Name: **Pond 015**

NPDES Permit & Outfall #: **CO-0000213**

Date Inspected: **14-October-2020**

Location Description: **~2 miles West of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**

Pond Type: **Partly Incised**

CDRM & S #: **C-1981-008**

Date Last Inspected: **15-October-2019**

Legal Location: **Sec 36 of T47N R16W**

Inspector's Name: **Frank Ferris**

Pond Capacity Data

As Built Pond Embankment elev.: **5671.0**

Surveyed Pond Bottom elev.: **5560.7**

As Built Pond Emergency Spillway elev.: **NA**

As Built Pond Primary Spillway elev.: **NA**

As Built Pond Capacity (pond bottom to top of embankment) per As Built **0.94 ac-ft**

Existing Pond Capacity (pond bottom to top of embankment): As Built Volume - SV = **0.94 ac-ft**

Sediment Volume (SV) at Inspection: length ____ ft X width ____ ft X depth ____ ft = **NA ac-ft**

Surface Water elev. **Dry** - As Built Pond Bottom elev. **5660.0** = Water Depth **NA**

Water Volume (WV) in Pond **Dry** (using as built capacity table & surface water elevation and then subtracting sediment volume under water level)

Pond Capacity Available **0.94 ac-ft** [As Built Pond Capacity – WV – SV]

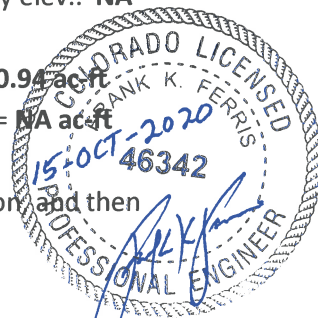
Inflow volume from 100-yr 24-hr storm runoff event **0.508 ac-ft**

Since the sediment volume between elevations 5560.0 to 5560.7 is less than .005 ac-ft, the volume does not show in the calculations. No significant sediment volume was added to Pond 015 in 2020.

Circle or Write appropriate Response

- | | | | | |
|-----|---|-----|-------------|--------------|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | X No | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | X No | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | X No | N/A |
| 4. | Major erosion problems _____ | Yes | X No | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | X No | N/A |
| 6. | Water impounded against toe _____ | Yes | X No | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | No | X N/A |
| | b) Decant system _____ | Yes | No | X N/A |
| | c) Diversion Ditches _____ | Yes | X No | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | No | X N/A |
| | b) Decant system _____ | Yes | No | X N/A |
| 9. | Trash racks clear and in place _____ | Yes | No | X N/A |
| 10. | Monitoring instrumentation _____ | Yes | No | X N/A |

Comments: **The pond elevations indicate less than .005 ac-ft of sediment accumulation.**



2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**

Pond Name: **Pond 016**

NPDES Permit & Outfall #: **CO-0000213**

Date Inspected: **14-October-2020**

Location Description: **~2 miles West of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**

Pond Type: **Partly Incised**

CDRM & S #: **C-1981-008**

Date Last Inspected: **15-October-2019**

Legal Location: **Sec 36 of T47N R16W**

Inspector's Name: **Frank Ferris**

Pond Capacity Data

As Built Pond Embankment elev.: **5620.5**

Surveyed Pond Bottom elev.: **5611.0**

As Built Pond Emergency Spillway elev.: **5618.5**

As Built Pond Primary Spillway elev.: **NA**

As Built Pond Capacity (pond bottom to emergency spillway) per As Built **7.5 ac-ft**

Existing Pond Capacity (pond bottom to emergency spillway): As Built Volume - SV = **7.5 ac-ft** ^{note}

Sediment Volume (SV) at Inspection: length ____ ft X width ____ ft X depth ____ ft = **NA ac-ft**

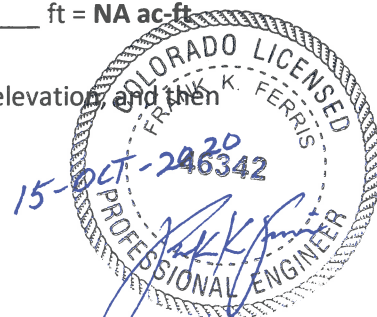
Surface Water elev. **Dry** - As Built Pond Bottom elev. **5611.0** = Water Depth **NA**

Water Volume (WV) in Pond **Dry** (using as built capacity table & surface water elevation, and then subtracting sediment volume under water level)

Pond Capacity Available **7.5 ac-ft** [As Built Pond Capacity – WV – SV]

Inflow volume from 100-yr 24-hr storm runoff event **5.33 ac-ft**

Note: Sediment volume about equal to settling.



Circle or Write appropriate Response

- | | | | | |
|-----|---|-----|-------------------------------------|-------------------------------------|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 4. | Major erosion problems _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 6. | Water impounded against toe _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| | b) Decant system _____ | Yes | No | <input checked="" type="checkbox"/> |
| | c) Diversion Ditches _____ | Yes | <input checked="" type="checkbox"/> | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | No | <input checked="" type="checkbox"/> |
| | b) Decant system _____ | Yes | No | <input checked="" type="checkbox"/> |
| 9. | Trash racks clear and in place _____ | Yes | No | <input checked="" type="checkbox"/> |
| 10. | Monitoring instrumentation _____ | Yes | No | <input checked="" type="checkbox"/> |

Comments: **The pond floor settling is offset by the sediment accumulation at the southeast entrance.**

2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**

Pond Name: **Pond 018**

NPDES Permit & Outfall #: **CO-0000213**

Date Inspected: **14-October-2020**

Location Description: **~¼ mile West of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**

Pond Type: **Partly Incised**

CDRM & S #: **C-1981-008**

Date Last Inspected: **15-October-2019**

Legal Location: **Sec 6 of T46N R15W**

Inspector's Name: **Frank Ferris**

Pond Capacity Data

As Built Pond Embankment elev.: **5682.0**

Surveyed Pond Bottom elev.: **5570.**

As Built Pond Emergency Spillway elev.: **5678.0**

As Built Pond Primary Spillway elev.: **NA**

As Built Pond Capacity (pond bottom to emergency spillway) per As Built **4.03 ac-ft**

Existing Pond Capacity (pond bottom to emergency spillway): As Built Volume - SV = **4.03 ac-ft**

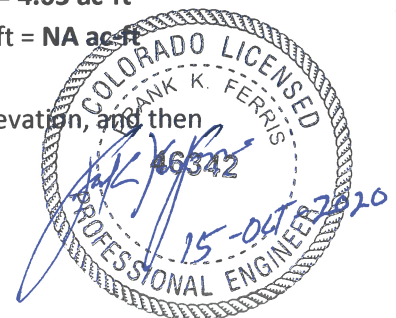
Sediment Volume (SV) at Inspection: length _____ ft X width _____ ft X depth _____ ft = **NA ac-ft**

Surface Water elev. **Dry** - As Built Pond Bottom elev. **5670.0** = Water Depth **Dry ft**

Water Volume (WV) in Pond **0 ac-ft** (using as built capacity table & surface water elevation, and then subtracting sediment volume under water level)

Pond Capacity Available **4.03 ac-ft** [As Built Pond Capacity – WV – SV]

Inflow volume from 100-yr 24-hr storm runoff event **2.25 ac-ft**



Circle or Write appropriate Response

- | | | | | |
|-----|---|-----|-----------|----------|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | X | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | X | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | X | N/A |
| 4. | Major erosion problems _____ | Yes | X | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | X | N/A |
| 6. | Water impounded against toe _____ | Yes | X | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | X | N/A |
| | b) Decant system _____ | Yes | No | X |
| | c) Diversion Ditches _____ | Yes | X | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | No | X |
| | b) Decant system _____ | Yes | No | X |
| 9. | Trash racks clear and in place _____ | Yes | No | X |
| 10. | Monitoring instrumentation _____ | Yes | No | X |

Comments: **Dry, salt cedar and Russian olive removed and sprayed**

2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**
 Pond Name: **Goforth Stock Pond**
 NPDES Permit & Outfall #: **CO-0000213**
 Date Examined: **14-October-2020**
 Location Description: **0.2 miles West of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**
 Pond Type: **Cross valley**
 CDRM & S #: **C-1981-008**
 Date Last Examined: **25-November-2019**
 Legal Location: **Sec 6 of T46N R15W**
 Inspector's Name: **Frank Ferris**



Circle or Write appropriate Response

- | | | | | |
|-----|---|-----|--|---|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 4. | Major erosion problems _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 6. | Water impounded against toe _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| | b) Decant system _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| | c) Diversion Ditches _____ | Yes | No | <input checked="" type="checkbox"/> N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| | b) Decant system _____ | Yes | <input checked="" type="checkbox"/> No | N/A |
| 9. | Trash racks clear and in place _____ | Yes | No | <input checked="" type="checkbox"/> N/A |
| 10. | Monitoring instrumentation _____ | Yes | No | <input checked="" type="checkbox"/> N/A |

Comments: **Water is following through the metal pipe spillway**

2020 ANNUAL IMPOUNDMENT INSPECTION

Mine: **New Horizon 2 Mine**

Pond Name: **Stock Pond SP2**

NPDES Permit & Outfall #: **CO-0000213**

Date Inspected: **14-October-2020**

Location Description: **2 miles NW of Nucla**

Owner's Rep.: **Frank Ferris, Mine Manager**

Pond Type: **Partly Incised**

CDRM & S #: **C-1981-008**

Date Last Examined: **17-September-2020**

Legal Location: **Sec 36 of T47N R16W**

Inspector's Name: **Frank Ferris**

Circle or Write appropriate Response

- | | | | | |
|-----|---|-----|---------------|----------------|
| 1. | Seepage (specify location, color, and approx. volume) _____ | Yes | No | N/A |
| 2. | Cracks or scarps on crest or slopes _____ | Yes | No | N/A |
| 3. | Sloughing or bulging on slopes _____ | Yes | No | N/A |
| 4. | Major erosion problems _____ | Yes | No | N/A |
| 5. | Surface movements in valley bottom or on hillside _____ | Yes | No | N/A |
| 6. | Water impounded against toe _____ | Yes | No | N/A |
| 7. | Clogging | | | |
| | a) Spillway channels and pipes _____ | Yes | No | N/A |
| | b) Decant system _____ | Yes | No | N/A |
| | c) Diversion Ditches _____ | Yes | No | N/A |
| 8. | Cracking or crushing of pipes | | | |
| | a) Spillway pipes _____ | Yes | No | N/A |
| | b) Decant system _____ | Yes | No | N/A |
| 9. | Trash racks clear and in place _____ | Yes | No | N/A |
| 10. | Monitoring instrumentation _____ | Yes | No | N/A |

Comments: **Pond bottom is dry.**

