# **Question 23. SUPPLEMENTAL INFORMATION UPLOAD**

- Narrative Annual Report Provides detail to answers on annual report questions.
- 2017 Tailing Storage Facility Evaluation Letter from AECOM
- 1 Dam Horizontal Drain As-Built Drawing
- Weed Control Data Tables

### Annual Report - 2017

# **Climax Molybdenum Company - Climax Mine**

# **Highway 91 – Fremont Pass**

Climax, Colorado 80429

Permit No. M-1977-493

According to C.R.S. 34-32-116, each year, on the anniversary date of the permit, an operator shall submit the annual fee, an annual report and map showing the extent of current disturbances to affected land, required monitoring information, reclamation accomplished to date and during the preceding year, any new disturbance that is anticipated to occur during the upcoming year, the dates for the beginning of active operations, and the date active operations ceased for the year.

The 2017 Annual Report for Climax Mine (Climax) follows the format of the questionnaire that is posted on the Division of Reclamation, Mining and Safety's (DRMS) Minerals Reclamation Permit Annual Report webpage. Climax's responses to the questionnaire are provided below. Other supporting documentation including reclamation maps, environmental monitoring data, weed control, and tailing storage facility stability information are included in the upload sections of questions 21, 22, and 23.

### Climax Responses to DRMS Annual Report Questionnaire

- 1. Yes. There is an identification sign posted on the east facing wall of the Climax main gate house that is visible from the entrance road.
- 2. Yes. Although boundaries are not marked in remote areas that are generally inaccessible due to the rugged terrain of the site, property boundaries at potential public access points are marked with Do Not Enter and No Trespassing signs. The Climax affected land boundaries also are clearly delineated on publically available maps distributed with the AM-06 application; Climax believes that signage at public access points together with the AM-06 maps meet the intent of Rule 3.1.12(2) and (3).
- 3. No. Climax is not in final reclamation.
- 4. Excavation, hauling, processing, and tailing deposition activities are currently ongoing at Climax. The Annual report form requires a date in the field, so the anniversary date is displayed here (3/4/18)
- 5. Climax operates more than 180 days per year.
- 6. No. Climax has neither requested, nor been granted, approval for Temporary Cessation or Intermittent Operation during the reporting year.

- 7. No. Climax has neither requested, nor been granted, approval for Temporary Cessation or Intermittent Operation during the reporting year.
- 8. There are 4,099.8 acres of currently affected land, including mining and incomplete and/or unreleased reclamation. Climax is permitted for 7,908 acres within the AM-06 affected land boundary.
- 9. Climax has 30.6 acres of newly affected land for the current (2017) report year.
- 10. Climax did not reclaim any affected land during the current (2017) report year.
- 11. Climax estimates that up to 20 acres may become affected in the next (2018) report year.
- 12. Climax does not anticipate any new reclamation occurring in the next (2018) report year.

  Areas where there is reclamation in progress will remain as indicated in question 13 below.

  These areas include Robinson TSF, 1 Dam, 2 Dam, areas surrounding Robinson Lake, and areas north of 3 Dam.
- 13. The total acres in various stages of reclamation (not counting the 550.7 acres of bond released reclamation) since permitted mining activities began are as follows:
  - Total acres backfilled: NA all reclamation earth-work consists of regrading.
  - b. Total acres graded: 758.1
  - c. Total acres seeded with approved mix: 536.3
  - d. Seed Application Method: Hydroseeding for slopes > 50%, Broadcast for all other areas.
  - e. Total acres fertilized with approved fertilizer: 430.0
  - f. Fertilizer application method: Incorporation of Composted Biosolids or Hydroseeder. The annual report form only allows for one entry, so "tractor spreader" is used to describe Incorporation of Composted Biosolids.
  - g. Total acres with topsoil replaced: 101.7
  - h. Topsoil replacement depth: 6 12 inches
  - i. Total acres mulched with approved mulch: 87.6
  - j. Mulch application rate: 1 ton per acre
  - k. Mulch application method: Hydroseeder
- 14. Yes. Weed control was conducted in accordance with the Weed Control Plan submitted in Amendment AM-06 and the weed species and control types are found on the maps

- uploaded in question 22. A weed control information narrative is provided in the supplemental information upload section.
- 15. Yes. As described in Amendment AM-06, adequate topsoil for reclamation has been identified/reserved within the affected land boundary. However, not all available cover material has been stripped and stockpiled. Climax has been segregating and stockpiling topsoil since 1979 based on areas of disturbance associated with mining activities. Although current soil stockpiles do not currently meet final reclamation needs, topsoil from future disturbed areas will continue to be stockpiled, and Climax will utilize its award-winning biosolids composting operation to generate additional nutrient-rich topsoil amendment.
- 16. Yes. Stockpiled topsoil has been vegetated and stabilized.
- 17. N/A. Mining activities have not exposed groundwater.
- 18. Yes. All hazardous materials at Climax are stored within approved spill containment structures.
- 19. Yes. The financial warranty approved with AM-06 is sufficient to cover the cost to complete reclamation.
- 20. Yes. Climax's basis for legal right to enter (as described in AM-06) is still valid.
- 21. Yes. Annual monitoring information is uploaded in question 21. A narrative statement is included as a cover page with the results of groundwater and surface water monitoring in 2017.
- 22. Climax has prepared several maps depicting the permit boundary, current affected area boundary and locations of the acreages specified in items 7 12. The maps included in Appendix 2 attached to this report are as follows:
  - a. Map 1 Depicts the permit boundary, current affected area boundary, the acreage currently affected, the acreage that was newly affected in the reporting year.
  - b. Map 2 Depicts the total acreage that has been reclaimed, and the acreage where reclamation is in progress.
  - c. Map 3 Depicts the acreage where reclamation is in progress that has been graded and/or covered with topsoil.
  - d. Map 4 Depicts the acreage where reclamation is in progress that has been seeded, mulched, or fertilized.
- 23. Information included in this section: This narrative, 2017 annual TSF evaluation letter from AECOM, 2017 1-Dam Horizontal Drain as-builts, and Weed Control information and tables.
- 24. Climax has not drilled any exploration/prospecting holes that have produced artesian flow.



AECOM 6200 S Quebec St Greenwood Village, CO 80111 www.aecom.com 303-694 2770 tel 303 694 3946 fax

February 8, 2018

Mr. Raymond Lazuk Environmental Manager Climax Molybdenum Company- Climax Mine Highway 91 – Fremont Pass Climax, CO 80429

Subject: DRMS Annual (Year 2017) Tailings Storage Facility Evaluation, Tenmile and

Mayflower Tailings Storage Facilities, Climax Mine, Permit No. M-1977-493

Dear Mr. Lazuk:

URS Corporation, a legacy company of AECOM, serves as the Engineer of Record (EOR) for the Tenmile and Mayflower Tailings Storage Facilitates (TSF) at the Climax Mine, near Fremont Pass Colorado. AECOM has prepared this summary of our Annual (2017) TSF Evaluation as required by Section 6 of the Mayflower TSF Operations and Maintenance Manual (OMM) and as stated in the response letter dated June 23, 2014 from Climax Molybdenum Company to the Division of Reclamation, Mining, and Safety (DRMS):

DRMS initially requested that the annual TSF inspection/evaluation/certification report be submitted to DRMS within 30 working days of the inspection. Climax has requested that the report be included with the standard annual report for the site. DRMS will allow the submittal of the TSF certification report with the other annual report if Climax will commit to notifying DRMS within 30 days of the inspection (or sooner if possible) of any issues identified in the inspection report that require corrective actions or modification to the existing approved TSF plans.

It is our understanding you will include this annual letter to DRMS in compliance with your other annual reporting. Presented below is a summary of key observations made during 2017.

Active deposition in 2017 occurred at the Tenmile TSF with leadoffs in January, February, and March. There was no spigot deposition this year at Tenmile TSF. Tailings deposition at Mayflower TSF in 2017 occurred through the leadoffs or cutouts in March thru September, November and December. Spigot deposition at Mayflower TSF occurred from June thru mid-November.

AECOM completed monthly site inspections of the active TSF(s) from June to October 2017. The review included meeting with operations personnel and reviewing production and operational logistics, operational plans, tailings management challenges, and future plans for operating the dams. Our site visits included reviewing tailings dam instrumentation, specifically reviewing piezometric elevations. We also completed a monthly walking tour of the dam observing the active and inactive tailings beach, dam crest, abutments, downstream slope, and toe area. We also conducted a review of the horizontal and foundation drain outfalls, as accessible and applicable.

Only one significant issue, pertaining to the Mayflower Seepwater pipeline leak, was identified in 2017 that required notification to the DRMS by Climax. A letter to Climax by AECOM dated September 14, 2017 summarized our findings that the pipeline leak had no impacts on 5 Dam stability, either



Mr. Raymond Lazuk Climax Molybdenum Company February 8, 2018 Page 2

currently or in the foreseeable future. This leak has been added to the regular review of the TSF's performance. No other significant issues were identified during the EOR site visits that required notification to the DRMS by Climax. Any maintenance issues observed during the EOR site visits were discussed with the Climax tailings operations staff and corrective action plans were developed and implemented.

The Tenmile and Mayflower TSFs appear to be functioning as designed and within the established design criteria. This judgment is based on observations made during site visits, as well as information provided and reported by Climax tailings operations staff such as deposition quantity, water surface elevations, and other parameters.

The remote monitoring system provides continuous monitoring of piezometric elevations. The system incorporates alarms based on piezometric elevation changes identified as either rate of change or threshold elevations. Rate of change alarms are triggered when predetermined elevation changes occur over a prescribed period of time. Rate of change and threshold elevations are specific to individual piezometers. Threshold levels are established based on the results of slope stability analyses and provide redundant warnings should piezometric elevations rise above prescribed predetermined elevations. The monitoring system triggers alarms requiring immediate review.

AECOM reviews the piezometric data monthly on both the Tenmile and Mayflower TSFs. Piezometers levels are tracking in accordance with the design. AECOM reviewed the annual movement monument data and found movement within the tolerance expected.

Continued diligence in monitoring embankment construction, decant pond levels, and instrumentation is essential to long term safety and performance of the structure. Correct operation of the tailings storage facility is essential and it is incumbent upon Climax to maintain proper training and personnel. AECOM will continue to work with the Climax team to monitor the performance of the TSFs.

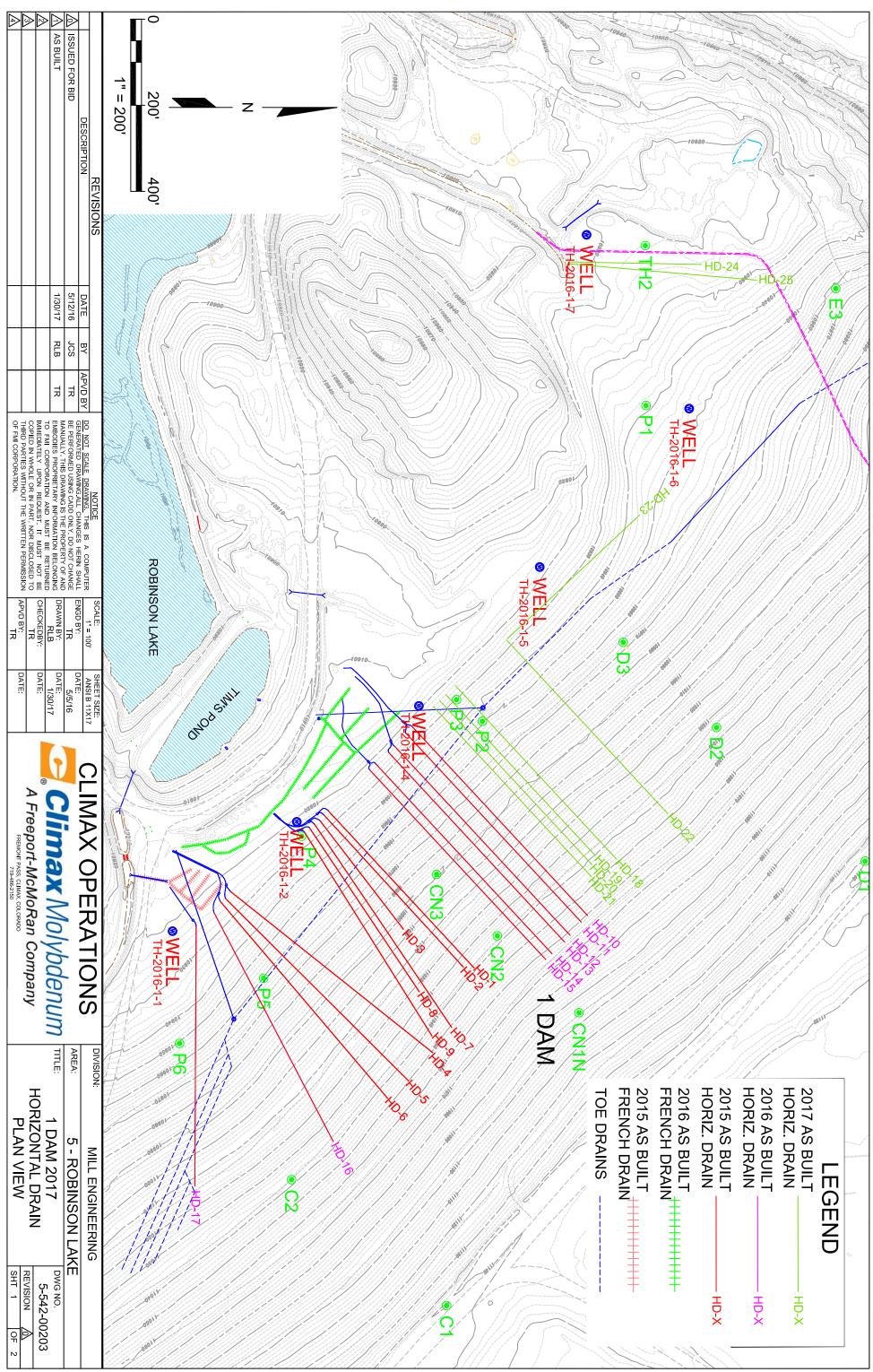
AECOM represents that our services are performed within the limits prescribed by the Client in a manner consistent with the level and skill ordinarily exercised by other consultants under similar circumstances. No representation to the Client, expressed or implied, and no other warranty or quarantee is included or intended.

Please do not hesitate to call us with any questions or comments.

Sincerely,

Lisa R. Yenne, PE Project Manager Richard R. Davidson, PE Senior Principal Engineer

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### Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Eagle, Lake\_County\_

Chalk Mountain Reservoir, 1 Dam, Billy BLVD, Arkansas River

Date: 9/15/2017 7:38 AM to 12:01 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Clear 38 degrees F. Wind: 2 mph out of W

Site/Crop: Reclamation/Revegetation Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Telar XP - 352654 - Chlorsulfuron	1.5 Oz (weight) per acre	0.375 Oz (weight)	0.04 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	8 fl oz	0.80 fl oz per gallon

Total Application: 0.25 acre

Treated utility road corridors around Chalk Mountain Reservoir. Treated north west corner of 1 Dam. Treated Billy BLVD road corridor and area around the Arkansas River.

# NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

#### Commercial Herbicide Applicator (CO #11318)

# **Herbicide Application Record**



Location: Climax Mine County: Summit\_County\_

Robinson Tailings Pond, Robinson Dam

Date: 9/14/2017 7:40 AM to 2:00 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Clear 38 degrees F. Wind: 1 mph out of W

Site/Crop: Reclamation/Revegetation Area

Target Plants: Mayweed chamomile - Anthemis cotula - List B, Oxeye daisy - Leucanthemum vulgare - List B, Thistle, Canada -

Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	Total Amount Applied	Dilution Rate
Induce - Adjuvant	16 Lbs. per acre	4 Lbs.	0.40 Lbs. per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Telar XP - 352654 - Chlorsulfuron	1.5 Oz (weight) per acre	0.375 Oz (weight)	0.04 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	8 fl oz	0.80 fl oz per gallon

Total Application: 0.25 acre

Treated road sides corridors around Robinsons tailings pond. Treated areas below and around Robinson Dam.

# NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

# Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Eagle, Summit\_County\_

Mayflower, PDWTP, Lower Eagle Reservoir

Date: 9/13/2017 7:28 AM to 3:07 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Clear 38 degrees F. Wind: 2 mph out of W

Site/Crop: Disturbed Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Thistle, Musk - Carduus nutans - List B, Toadflax, Yellow- Linaria

vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Telar XP - 352654 - Chlorsulfuron	1.5 Oz (weight) per acre	0.75 Oz (weight)	0.04 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	16 fl oz	0.80 fl oz per gallon

Total Application: 0.5 acre

Treated utility road corridors around the east side of Mayflower area and PDWTP area. Treated lower Eagle Reservoir area.

# NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

### Commercial Herbicide Applicator (CO #11318)

# **Herbicide Application Record**



Location: Climax Mine County: Summit\_County

Mayflower

Date: 9/11/2017 10:54 AM to 2:48 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Sunny 58 degrees F. Wind: 2 mph out of SE

Site/Crop: Disturbed Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Thistle, Plumeless - Carduus acanthoides - List B, Toadflax, Yellow-

Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	Total Amount Applied	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Telar XP - 352654 - Chlorsulfuron	1 Oz (weight) per acre	0.5 Oz (weight)	0.03 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	16 fl oz	0.80 fl oz per gallon

Total Application: 0.5 acre

Treated utility road corridors around Mayflower

# NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

# Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Eagle, Lake\_County\_

Chalk Mountain Reservoir, Eagle Reservoir, Arkansas River, 5 Sharft.

Date: 7/20/2017 6:19 AM to 12:29 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Stacey Birlson, Drew Gramer

Weather: Clear 56 degrees F. Wind: 1 mph out of W

Site/Crop: Reclamation/Revegetation Area

Target Plants: Oxeye daisy - Leucanthemum vulgare - List B, Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow-

Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Milestone - 62719537 - Aminopyralid	6 fl oz per acre	1.5 fl oz	0.15 fl oz per gallon
Overdrive - 7969150 - Difluenzopyr	4 Oz (weight) per acre	1 Oz (weight)	0.10 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	8 fl oz	0.80 fl oz per gallon

Total Application: 0.25 acre

Treated areas around Chalk Mountain Reservoir utility roads, areas below Eagle Reservoir, Billy BLVD road side corridor and areas around Arkansas River and 5 Sharft.

### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

# Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: lake\_county

Jones Pit

Date: 7/20/2017 12:17 PM to 2:00 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Drew Gramer

Weather: Partly Cloudy 71 degrees F. Wind: 3 mph out of N

Site/Crop: Reclamation/Revegetation Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Thistle, Musk - Carduus nutans - List B, Thistle, Plumeless - Carduus

acanthoides - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Backpack Sprayer Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	Total Amount Applied	Dilution Rate
Induce - Adjuvant	0.5 fl oz per gallon	1.5 fl oz	0.02 fl oz per gallon
Spray Indicator - Blue Dye	0.5 fl oz per gallon	1.5 fl oz	0.02 fl oz per gallon
Milestone - 62719537 - Aminopyralid	0.5 Tbsp. per gallon	1.5 Tbsp.	0.02 Tbsp. per gallon
Weedestroy AM40 - 228145 - 2,4-D	1.2 fl oz per gallon	3.6 fl oz	0.04 fl oz per gallon

Total Application: 3 gallon

Treated Jones Pit reclaimed area and perimeter

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

### Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Summit\_County\_

Robinson Dam, Lake Irwin, 1 Dam, Robinson Water Treatment Plant.

**Date:** 7/19/2017 5:24 AM to 1:00 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Drew Gramer

Weather: Sunny 65 degrees F. Wind: 1 mph out of N

Site/Crop: Reclamation/Revegetation Area

Target Plants: Mayweed chamomile - Anthemis cotula - List B, Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow-

Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	4 fl oz	0.40 fl oz per gallon
Milestone - 62719537 - Aminopyralid	6 fl oz per acre	1.5 fl oz	0.15 fl oz per gallon
Overdrive - 7969150 - Difluenzopyr	4 Oz (weight) per acre	1 Oz (weight)	0.10 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	8 fl oz	0.80 fl oz per gallon

Total Application: 0.25 acre

Ran Robinson Tailings Pond haul road corridors, terraces above Lake Irwin. Areas around the Robinson Water Treatment Plant and utility road corridors.

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

# Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Summit\_County\_

Mayflower

**Date:** 7/18/2017 7:33 AM to 2:37 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Drew Gramer

Weather: Sunny 54 degrees F. Wind: 1 mph out of W

Site/Crop: Reclamation/Revegetation Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	12 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	12 fl oz	0.40 fl oz per gallon
Overdrive - 7969150 - Difluenzopyr	4 Oz (weight) per acre	3 Oz (weight)	0.10 Oz (weight) per gallon
Milestone - 62719537 - Aminopyralid	6 fl oz per acre	4.5 fl oz	0.15 fl oz per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	24 fl oz	0.80 fl oz per gallon

Total Application: 0.75 acre

Treated lower and upper Mayflower area utility road corridors, topsoil stockpile and around substation perimeters

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

### Commercial Herbicide Applicator (CO #11318)

#### **Herbicide Application Record**



Location: Climax Mine County: Summit\_County\_

**PDWTP Wetland** 

Date: 7/17/2017 12:22 PM to 1:24 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Drew Gramer

Weather: Partly Cloudy 71 degrees F. Wind: 3 mph out of W

Site/Crop: Wetland

Target Plants: Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Backpack Sprayer Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Garlon 3A - 6271937 - Triclopyr	1.5 fl oz per gallon	3 fl oz	0.05 fl oz per gallon
Induce - Adjuvant	0.5 fl oz per gallon	1 fl oz	0.02 fl oz per gallon
Spray Indicator - Blue Dye	0.5 fl oz per gallon	1 fl oz	0.02 fl oz per gallon

Total Application: 2 gallon

Treated PDWTP Wetland area from toe of slope to road side

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

### Commercial Herbicide Applicator (CO #11318)

# **Herbicide Application Record**



Location: Climax Mine County: Summit\_County\_

PDWTP & Lower Mayflower

**Date:** 7/17/2017 1:54 PM to 3:05 PM

Customer: Climax Mine and Mill Hwy 91 Leadville, CO 80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Drew Gramer

Weather: Sunny 68 degrees F. Wind: 3 mph out of W

Site/Crop: Reclamation/Revegetation Area

Target Plants: Mayweed chamomile - Anthemis cotula - List B, Oxeye daisy - Leucanthemum vulgare - List B, Thistle, Canada -

Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Spray Indicator - Blue Dye	16 fl oz per acre	8 fl oz	0.40 fl oz per gallon
Milestone - 62719537 - Aminopyralid	6 fl oz per acre	3 fl oz	0.15 fl oz per gallon
Overdrive - 7969150 - Difluenzopyr	4 Oz (weight) per acre	2 Oz (weight)	0.10 Oz (weight) per gallon
Weedestroy AM40 - 228145 - 2,4-D	32 fl oz per acre	16 fl oz	0.80 fl oz per gallon

Total Application: 0.5 acre

Treated PDWTP and North Gate road side corridors.

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?

### Commercial Herbicide Applicator (CO #11318)

### **Herbicide Application Record**



Location: Climax Mine County: lake\_County\_

County: Eagle. Chalk Mountain Dam, Robinson Dam

**Date:** 9/16/2017 8:08 AM to 9:37 AM

Customer: Climax\_Mine\_Dam\_Maintenance\_Hwy\_91\_Leadville,\_CO\_80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Overcast 40 degrees F. Wind: 2 mph out of W

Site/Crop: Disturbed Area

Target Plants: Thistle, Canada - Cirsium arvense - List B, Toadflax, Yellow- Linaria vulgaris - List B

Application Equipment: Backpack Sprayer Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Induce - Adjuvant	1 fl oz per gallon	9 fl oz	0.03 fl oz per gallon
Spray Indicator - Blue Dye	0.5 fl oz per gallon	4.5 fl oz	0.02 fl oz per gallon
Garlon 3A - 6271937 - Triclopyr	6 fl oz per gallon	54 fl oz	0.20 fl oz per gallon

Total Application: 9 gallon

Targeted all woody plant species inside the treatment limits of the Chalk Mountain Reservoir Dam and Robinson Reservoir Dam face. Treated inner side of both dam faces. Plants were entering a state of senescence at time applications were performed.

# NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: Yes 200ft

Use Pattern: Weeds and Algae

Is equipment properly calibrated? Yes

Did you conduct visual monitoring for adverse incidents? Yes

### Commercial Herbicide Applicator (CO #11318)

### **Herbicide Application Record**



Location: Climax Mine County: Lake\_County\_

County: Eagle, Summit, and Lake. Mayflower Substation PS, PDWTP Barge Substation, Warren's Pump Station Substaion,

Domestic Water Treatment Plant Substaion, Mayflower 115kv Substaion PDC Substaion

Date: 9/12/2017 6:41 AM to 1:24 PM

Customer: Climax\_Mine\_Electrial\_Hwy\_91\_Leadville,\_CO\_80461

Qualified Supervisor: Matt Clark #29724

Applicators: Matt Clark, Anna Taugher, Collin Jones

Weather: Clear 42 degrees F. Wind: 1 mph out of SW

Site/Crop: Electrical Station

Target Plants: All Vegetation (Bare Ground Treatment)

Application Equipment: Orange Kubota #2 Application Method: Spot-Spraying Carrier: Water

Herbicide Applied	Application Rate	<b>Total Amount Applied</b>	Dilution Rate
Spray Indicator - Blue Dye	16 fl oz per acre	16 fl oz	0.40 fl oz per gallon
Viewpoint - 352847 - Imazapic	18 Oz (weight) per acre	18 Oz (weight)	0.45 Oz (weight) per gallon
MSO - Adjuvant	51 fl oz per acre	51 fl oz	1.28 fl oz per gallon
Ranger Pro - 524517 - Glyphosate	80 fl oz per acre	80 fl oz	2.00 fl oz per gallon

Total Application: 1 acre

Treated substation pads and fence perimeters. Inspected the Mayflower 115kv and PDC substations. Minimum vegetation emerging within the Mayflower 115kv, spot treated as needed and performed broadcast treatment around fence perimeter. Minimum vegetation emerging within PDC substation, spot treated as needed and ran out remaining herbicide on sections of the pad surface to finish.

#### NPDES COMPLIANCE (Only Applicable to Aquatic Sites)

Aquatic site: No

Use Pattern: Weeds and Algae

Is equipment properly calibrated?

Did you conduct visual monitoring for adverse incidents?