13.0 RULE 6.4.13: EXHIBIT M – OTHER PERMITS & LICENSES

A statement identifying which of the following permits, licenses and approvals the Operator/Applicant holds or will be seeking in order to conduct the proposed mining and reclamation operations: effluent discharge permits, air quality emissions permits, radioactive source material licenses, the State Historic Preservation Office clearance, disposal of dredge and fill material (404) permits, permit to construct a dam, well permits, explosives permits, highway access permits, U.S. Forest Service permits, Bureau of Land Management permits, county zoning and land use permits, and city zoning and land use permits.

COUNTY PERMITS AND APPROVALS

- Lake County Conditional Use Permit – (Appendix 13-1)

Note: 2011 Permit 11-07 is included. This permit once updated will be provided to the Division for review.

- Parkville Water District- Lake County -(Appendix 13-2)
- Noxious Weed Management Plan- (Appendix 13-3)
- Building Permit- (Appendix 13-4)

Note: Building permits for pre-2021 construction are included. Additional building permits for; leach tank pad, new crusher, truck scale, filtration building, and temporary RoM storage pad will be provided to the Division for review, when received.

- Certificate of Occupancy (CO) (Appendix 13-5)

Note: CO for pre-2021 construction is included. Additional building permits for; leach tank pad, new crusher, truck scale, filtration building, and temporary RoM storage pad will be provided to the Division for review, when received.

STATE PERMITS AND APPROVALS

- Air Pollution Emission Notice (APEN)-CDPHE; (Appendix 13-6)

Note: APENs have been submitted to the Colorado Department of Public Health & Environment (CDPHE) and will be provided when received.

- Stormwater Permit (Application)- CJK Milling Company LLC-In Process (Appendix 13-7)
- State Historic Preservation Office Consultation (Appendix 13-8)
- Colorado Department of Transportation-CDOT approved road access permit (Appendix 13-9)
- Colorado State Engineer-Monitoring Well Permits (Appendix 13-10)
- Stormwater Permit Leadville Mill (Exhibit U).
- Industrial Discharge Permit. The Mill is a “no discharge facility”. Not required.

APPENDIX 13-1

LAKE COUNTY
- CONDITIONAL USE PERMIT

357358 9/13/2011 10:05 AM Patricia Berger
1 of 4 OAR R$0.00 D$0.00 Lake County Recorder

File: 11-07

OFFICIAL ACTION RECORD / LAKE COUNTY LAND USE

1. TYPE OF REQUEST: Conditional Use Permit
2. APPLICANT / OWNER: Union Milling Company, LLC, Constructive Investments, LLC
3. REPRESENTATIVE: Same as Applicant / Owner
4. APPLICANT ADDRESS: 6200 S. Vivian St., Littleton, CO 80127
5. LOCATION OF PROPERTY: 4436 Zuni, Lake County, CO
6. PRESENT ZONING: Industrial Mining (IM)
7. REQUEST DESCRIPTION: Conditional Use Permit to reopen the Leadville Mill

LAKE COUNTY PLANNING COMMISSION ACTIONS

8. DATE & TYPE OF ACTION TAKEN
   - A. August 8, 2011 — Joint Public Hearing
   - B. August 22, 2011 — Continuation of Joint Public Hearing, Planning Commission discussion and recommendation

PLANNING COMMISSION ACTION OR RECOMMENDATION TO THE BOARD OF COUNTY COMMISSIONERS

9. APPROVAL:
10. DENIAL:
11. CONDITIONAL APPROVAL: **XX**
12. OTHER:
13. STIPLULATIONS RECOMMENDED:
14. DATE SUBMITTED TO BOARD OF COUNTY COMMISSIONERS:
    FORMS SUBMITTED: Official Action Record, Statement of Motion and the project file (#11-07).

Tom Martinez / Land Use Planner
Signature / Title

****

LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

DATE ABOVE REQUEST RECEIVED FROM PLANNING COMMISSION: 8-24-11

15. FORMS RECEIVED: Official Action Record, State of Motion and the project file #11-07

DATE PLACED ON COMMISSIONERS' AGENDA: 9/7/2011

16. DATE & TYPE OF ACTION TAKEN BY THE BOARD OF COUNTY COMMISSIONERS:
    - A. See Lake County Commissioners' Statement of Motion.
    - B.
    - C.

FINAL DECISION BY THE BOARD OF COUNTY COMMISSIONERS

17. APPROVAL: REASONS:

18. DENIAL:

19. CONDITIONAL APPROVAL: XX

20. OTHER:

DATE MAILED TO PETITIONER: 9-14-11

Carl E. Shaffer Commissioner Chair
Signature / Title

357358 9/13/2011 10:05 AM Patricia Berger
2 of 4 OAR R$0.00 D$0.00 Lake County Recorder

Statement of Motion

File No. 11-07

At its August 22, 2011 meeting, the Lake County Planning Commission made, seconded, and approved by a vote of six (6) members in favor, zero (0) members in opposition, the following motion regarding File No. 11-07; the motion having been made by Bill Klauber and seconded by Bruce Hix, was approved by an unanimous voice vote:

Klauber moves, regarding File 11-07, that the Planning Commission recommend to the Board of Commissioners that this CUP application be approved with the following conditions:

1) All trucks making deliveries must have noise reduction mufflers
2) Applicant has one year to complete fencing in accordance with the Colorado Division of Wildlife
3) All equipment in operation on site must use Strobe lights to indicate reverse gear by MSHA
4) All external lights on facility must be fully shielded, downcast, and not discernable from above or horizontally
5) All loads on delivery trucks will be covered
6) Must acquire a 10,000 gallon cistern. Applicant must acquire a water plan in 2 years and have it implemented in 3 years.
7) Staff will comply with requirements made by the airport engineer.
8) Must have written easement.
9) 24/7 is allowable
10) Applicant will provide 10 regular parking spaces and 1 handicapped space

357358 9/13/2011 10:05 AM Patricia Berger
3 of 4 OAR R$0.00 D$0.00 Lake County Recorder

11) Applicant will facilitate training within 90 days of start up
12) Board of Commissioners will review the CUP for File 11-07 annually or on any change of ownership or conversion to a custom mill.

357358 9/13/2011 10:05 AM Patricia Berger
4 of 4 OAR R$0.00 D$0.00 Lake County Recorder

Board of County Commissioners
Lake County, Colorado

Statement of Motion
#11-07

Motion was made by Commissioner Bordogna and seconded by Commissioner Semsack to approve file #11-07. The motion was amended by a motion by Commissioner Bordogna and a second by Commissioner Semsack to include the 13 conditions which included striking the Planning Commission condition #7 and adding two more conditions. The conditions are as follows:

1) All trucks making deliveries must have engine brake mufflers
2) Applicant has one year to complete and alter existing perimeter fencing in accordance with the Colorado Division of Wildlife recommendations.
3) All equipment in operation on site must use strobe lights after dark to indicate reverse gear instead of audible alarms.
4) All external lights on facility must be fully shielded downcast.
5) All loads on delivery trucks will be covered.
6) No load delivers will occur between 11:00 p.m. and 6:00 a.m. beginning 9-1-2011.
7) Must acquire a minimum 10,000 gallons of dedicated fire protection water. Applicant must develop a permanent water plan in 2 years and have it implemented in 3 years.
8) Must furnish a non-terminable easement within one year
9) 24/7 operation is allowable
10) Applicant will provide 10 regular parking spaces including 1 handicapped space.
11) Applicant will facilitate training for first responders within 90 days of start up
12) Board of Commissioners will review the CUP for File 11-07 annually or on any change of ownership or conversion to a custom mill
13) Applicant will address sound mitigation upon complaints

Commissioner Bordogna voted in favor of the amendment, Commissioner Semsack voted in favor of the amendment and Commissioner Schaefer voted in favor of the amendment.

Commissioner Bordogna voted in favor of the original motion, Commissioner Semsack voted in favor of the original motion and Commissioner Schaefer voted in favor of the original motion.

APPENDIX 13-2

PARKVILLE WATER DISTRICT
- COMMITMENT TO PROVIDE WATER

Parkville Water District
2015 Poplar Street Leadville CO 80461
Telephone (719) 486-1449 Fax (719) 486-2057 www.parkvillewater.org

To Whom It May Concern, January 14, 2021

Parkville Water District does intend to provide water to the CJK Milling Company LLC, for the operation of its mill West of Leadville Colorado. Parkville Water District will provide an estimated 35,000 gallons per day for continued operation of this mill. This commitment to provide water service will extend to January 14, 2023, at which time it will be subject to renewal at the discretion of the Parkville Board of Directors and Management.

Sincerely,

Greg Teter,

General Manager

APPENDIX 13-3

LAKE COUNTY
- NOXIOUS WEED MANAGEMENT PLAN

Noxious Weed Management Plan

Union Milling Company
Leadville Mill
Leadville, Colorado
July 2013

1. Plan Objective

The objectives for the Union Milling Company (UMC) Noxious Weed Management Plan for the Leadville Mill are to:

1. provide the steps necessary for the Leadville Mill to assess the existence of noxious weeds within and adjacent to the property boundaries;
2. provide the Leadville Mill with preventive and treatment measures which will control the spread and establishment of noxious weeds; and
3. identify monitoring needs and frequency of monitoring.

2. Description of the Project

The Leadville Mill site permitted area consist of 20.7 acres located about 2.5 miles south of the town of Leadville. It is on the north side of Highway 24 in a heavily wooded area on the lee side of an east-west trending hill at an elevation of 9,750 feet.

3. List of Potential Noxious Weed Species

Following is a list of Chaffee County Noxious Weeds taken from the Chaffee County Website: http://www.chaffeecounty.org/weed-control.

Common Name	Scientific Name
Canada Thistle	Cirsium arvense
Dalmation Toadflax	Linaria dalmatica
Disffuse knapweed	Centaura diffusa
Hoary cress	Lepidium draba
Houndstoung	Cynoglossum officinale
Leafy spurge	Euphorbia esula
Musk thistle	Caruus nutans
Oxeye Daisy	Leucanthemum vulgare
Russian knapweed	Acroptilon repens
Scentless Chamomile	Tripleurospermum inodorum
Spotted knapweed	Centaurea maculosa
Yellow toadflax	Linaria vulgaris

4. Weed Inventory

UMC requested that Larry Walker, Chaffee County Weed Department, inspect the mill site. He found some Oxeye daisies on the fence line next to the water treatment plant (outside of the permitted area) and a few Canada thistle on the pond dike and

the south west corner of the mill (inside the permitted area). Canada thistle was also observed earlier in the year around the mill and the tailings pond. See attached map for weed infestation locations.

5. Control Methods and Treatment Windows

This section addresses the control methods and treatment windows for each of the potential noxious weed species listed on the Chaffee County Noxious Weeds website.

Canada Thistle

by K.G. Beck [1] (Revised 11/08)

Management

The key principle to Canada thistle control is to stress the plant and force it to use stored root nutrients. Canada thistle can recover from almost any stress, including control attempts, because of root nutrient stores. Therefore, returning infested land to a productive state occurs only over time. Success requires a sound management plan implemented over several years.

Cultural control - Grasses and alfalfa can compete effectively with Canada thistle if their growth is favored by good management. Maintain fertility and, if possible, moisture at optimum levels to favor grass or alfalfa growth. Soil analysis can easily determine fertility needs. Be cautious with nitrogen fertilizers, because excess available soil nitrogen may favor weed growth.

These are essential management steps to ensure optimum desirable plant growth and competition. However, competition alone seldom is effective against Canada thistle.

Chemical control - Read the label, follow directions and use precautions. Research at Colorado State University shows that Tordon 22K (picloram), Milestone (aminopyralid), Transline (clopyralid), Banvel/ Vanquish/Clarity (dicamba) and Telar (chlorsulfuron) are effective against Canada thistle. Canada thistle is difficult to control and re-treatment for one to three or more years after the initial application is common. Refer to Table 1 for use rates and application timing. These herbicides are most effective when combined with cultural and/or mechanical control.

Table 1. Herbicide to control Canada thistle in pasures, rangeland, natural and noncrop areas.

Herbicide	Rate (Production/A)	Application timing	Comments
Tordon	1 quart	Anytime when weeds are rapidly growing	Fall applications consistent results; may need re-treatment 1 to 2 years
Milestone	5 to 7 fl oz	Spring at prebud growth stage; or fall	Use higher rate for older or dense stands; Milestone may be used to edge of ponds or streams; may need re-treatment 1 to 2 years
Transline	0.67 to 1.33 pints	Spring after all shoots have emerged, rosete to early bud growth stages; or fall	Apply 1 pint/A or more in fall; may need re-treatment 1 to 3 years
Telar	1 oz	Spring bolting to bud growth stages; or fall	Fall applications most consistent results; essential to use non-ionic surfactant at 0.25% v/v; may need retreatment 1 to 2 years
Banvel, Vanquish, or Clarity (diacamba)	2 quarts	Spring rosette growth stage; or fall	Fall applications most consistent results; may need re-treatment 2 to 4 years

Colorado State University data also indicates that Banvel/Vanquish/Clarity or Telar are effective when combined with 2,4-D as a split-season application.

Apply 2,4-D, 2 quarts per acre (A), in spring when Canada thistle is 10 to 15 inches tall, in pre-bud to early bud growth stages. Re-treat in fall with Banvel/Vanquish/Clarity (2 quarts/A) or Telar (1 ounce/A) to re-growth. Use a surfactant (0.25 percent to 0.5 percent v/v; equivalent to 1 to 2 quarts of surfactant per 100 gallons of spray solution) with Telar for adequate control.

Curtail is clopyralid plus 2,4-D and is effective on Canada thistle but control tends to be less than from Transline. Recent research at Colorado State University shows that the performance of Curtail to control Canada thistle can be improved when preceded by two or three mowings. When Canada thistle infestations occur in situations where root growth would be restricted, such as habitats with high water tables, begin mowing when it is 12 to 15 inches tall. Repeat mowings at about one month intervals. Apply Curtail at 2 to 3 quarts/A in October or about one month after the third mowing. Follow this regimen for two consecutive years.

Mechanical control - Mowing hay meadows can be an effective tool if combined with herbicide treatments. Mowing alone is not effective unless conducted at one-month intervals over several growing seasons. Always combine mowing with cultural and chemical control. Mowing at hay cutting stimulates new Canada thistle shoots to develop from its root system.

In irrigated grass hay meadows, fall herbicide treatments that follow mowing can be an effective management system because more Canada thistle foliage is present after cutting to intercept herbicide. Additionally, root nutrient stores decrease after mowing because the plant draws on them to develop new shoots.

If a Canada thistle infestation exists in a field that will be rotated to alfalfa, control the weed before seeding alfalfa. Alfalfa is an effective competitor only after it is established. It will not adequately establish in a well-developed Canada thistle infestation. A Canada thistle management system can start with crop or grass competition combined with herbicides, with the field rotated to alfalfa.

Biological control - *Ceutorhyncus litura* is a weevil currently used as a biocontrol agent in Colorado. The female lays eggs on the underneath side of Canada thistle leaves in early spring. Larvae bore into the main leaf vein, then down into the plant's crown area. If the population is high enough, plant death can occur, otherwise Canada thistle is stressed and less vigorous when the management plan ends.

Ceutorhyncus alone will not effectively control Canada thistle. It must be combined with other methods to be successful. Combine the weevil with cultural techniques that allow for maximum desirable plant competition. Research to combine *Ceutorhyncus* with herbicides or mowing has not been conducted. Research has shown that biological and chemical controls are compatible for musk thistle. This is most likely true for Canada thistle as well. *Ceutorhyncus litura* is available from the Colorado Department of Agriculture.

Urophora cardui is another biocontrol insect available from the Colorado Department of Agriculture. Females lay eggs on apical meristems of developing shoots. Larvae burrow

into shoots. Their feeding triggers huge galls to form that stress the plant, sometimes killing it. Galls that form near the terminal meristems (e.g., where flowers develop) keep the weed from flowering and reduce seed set.

(Beck, 2013)

Dalmation toadflax and Yellow toadflax

Management

All toadflax species are difficult to control and management plans should integrate as many strategies as possible to increase potential for success. Assess the condition and composition of the existing plant community in an infested area, then determine the approximate composition of the desired plant community needed to achieve land management goals and objectives. Create a management plan that combines various control strategies to foster development of the desired plant community.

Chemical and Cultural Management of Dalmatian Toadflax - Dalmatian toadflax may be controlled with Tordon 22K at 2 pt/A sprayed at flowering or in fall. In Colorado, rates of 2, 4, and 8 pt/A of Tordon were compared and control longevity was greatest from the 2 pt rate, apparently because competition from crested wheatgrass was maintained. Researchers in Wyoming treated Dalmatian toadflax in early September, 1994, with Tordon at 2 pt/A, then seeded the following year in April or August with

‘Hycrest’ crested wheatgrass, ‘Luna’ pubescent wheatgrass, ‘Critana’ thickspike wheatgrass, ‘Bozoisky’ Russian wildrye, or ‘Sodar’ streambank wheatgrass. The combination of spraying and seeding competitive grasses controlled Dalmatian toadflax better than spraying alone. Three years after treatments were started, control of Dalmatian toadflax ranged from 61 percent to 86 percent where grasses were seeded in April and from 76 percent to 95 percent from the August seeding, compared to no control from spraying alone.

Telar also controls Dalmatian toadflax when applied in fall but relatively high rates (2 oz product/A) are required. Other research in Colorado shows that addition of a silicone/methylated seed oil surfactant at 1 percent (equivalent to 1 gallon per 100 gallons of spray solution) improves control from Telar.

Table 1: Herbicides used to control Dalmation toadflax.

Herbicide	**Rate (Product/A)**	**Application Timing**	**Comments**
Tordon 22K	2 pt.	Flowering or fall	Best control when applied at full bloom or fall.
Telar	2 oz.	Fall	Improved control achieved with 1 percent v/v silicone/methylated seed oil surfactant; NIS at 0.25 percent v/v can be used if collateral injury to native forbs and shrubs at risk but control will decrease.
Plateau	12 oz.	Fall	Apply when 25 percent of plant is necrotic, usually after a hard frost. Use a methylated seed oil at 1 qt/A. Cool-season grass injury often occurs from high rates of Plateau applied in fall.

Chemical Control of Yellow Toadflax - Yellow toadflax appears to be more difficult to manage than Dalmatian toadflax. In Colorado, control from Tordon 22K applied at flowering has been most consistent and typically, 4 pt/A is recommended. Yellow toadflax usually recovers from a single application. For example, Tordon applied at 4 or 8 pt/A controlled 13 percent and 69 percent of yellow toadflax three years after treatments were applied. Other research conducted in Colorado suggests that yellow toadflax control may be improved if Tordon is applied over three consecutive years, but control varied with location. In one experiment conducted at high elevation (Camp Hale; elevation approximately 10,000 feet), 4 pt/A of Tordon applied at flowering for three consecutive years decreased shoot density to zero. However, the same treatment applied for three years at two other locations (White River drainage, elevation approximately 8,500 feet) controlled 69 percent and 35 percent of yellow toadflax.

Telar also may be used to control yellow toadflax. In an experiment conducted in Middle Park near Parshall, Telar at 1.25 oz/A applied during flowering or in fall controlled 84 percent of yellow toadflax one year later. Telar, however, should be applied at 1.5 oz/A and a non-ionic surfactant (NIS) should be included at 0.25 percent v/v (equivalent to 1

quart per 100 gallons of spray solution). Control of yellow toadflax from Telar can be improved if a methylated seed oil at 1 percent v/v is used instead of a NIS, but injury to native forbs and shrubs may increase.

Table 2: Chemical control of Yellow Toadflax.

Herbicide	Rate (Product/A)	Application Timing	Comments
Tordon 22K	2 to 4 pt.	Flower to fall	Fall timing most consistent. Use higher rate on dense stands. Usually requires application for more than 1 year.
Telar	1.5 to 2 oz	Flower to fall	Fall timing most consistent. Use higher rate for dense stands and usually requires application for more than one year. Must include a NIS at 0.25 percent v/v; control is improved if a methylated seed oil is used but collateral injury to forbs and shrubs may be increased.

Recent CSU research showed that yellow toadflax control was improved when Tordon was mixed with Overdrive. Treatments were applied on August 29, 2007 when yellow toadflax was in the flowering growth stage (not all shoots were flowering) and vegetative root buds 0.5 to 0.75 inches long were present on about 70 percent of crowns examined. Tordon applied alone at 2 or 4 pt/A controlled 53 percent and 70 percent of yellow toadflax, respectively, about one year after treatments were applied; however, when these rates were mixed with Overdrive at 6 oz product/A control improved to 97 percent and 94 percent, respectively. This experiment is being repeated to determine if improved control is consistent.

Escort, 2,4-D amine, Banvel, and Paramount controlled from 5 percent to 24 percent of yellow toadflax one year after single treatments were applied at flowering. Plateau showed some potential to control yellow toadflax in another Colorado experiment where 8 oz/A applied once in fall controlled 59 percent of yellow toadflax one year later. While this level of control is unsatisfactory, sequential treatments may increase control but experiments must be conducted to test this hypothesis.

Mechanical and Chemical Control of Yellow Toadflax - Mowing combined with spraying Tordon did not improve control in an experiment conducted near Hesperus, Colorado. Yellow toadflax was mowed three times per year then treated with Tordon at 4 pt/A in fall for two consecutive years and compared to Tordon applied at 4 pt/A at flowering also for two consecutive years. Yellow toadflax control was the same (85 percent) whether Tordon treatments were combined with mowing or not.

Biological Control of Toadflaxes - Several classical biocontrol agents are available to use against toadflaxes. However, the success of these agents remains largely unknown. A defoliating moth (Calophasia lunula), an ovary-feeding beetle (Brachypterolus pulicarius), and two-seed capsule-feeding weevils (Gymnaetron antirrhini and G.netum) have been released in the U.S. and Canada to control all toadflax species. Particularly the flowering and seed feeding insects should help decrease seed production.

A stem-boring weevil (Mecinus janthinus) and a root-boring moth (Eteobalea intermediella) also were released in Canada and the U.S. to control all species of toadflax. These species may help to control shoots and seed production as well as decrease root vigor, but data are unavailable to document their effects. Several of these classical biocontrol agents are available from the Colorado Department of Agriculture Insectary in Palisade. Very few published studies are available to determine whether grazing by livestock will effect any control of Dalmatian or yellow toadflax.

(Beck, 2013)

Diffuse knapweed and Spotted Knapweed

Management

Diffuse and spotted knapweed can be managed similarly. They are readily controlled

Figure 4. Diffuse knapweed flowers, note fringe on sides of bracts and long terminal spine on bract tips.

Figure 5. Spotted knapweed flowers; note dark-tipped bracts and lack of long terminal spine on tip of bract.

Figure 6. Diffuse knapweed on left, spotted knapweed on right.

with herbicides. However, the weeds will reinvade unless cultural techniques are used.

Chemical control - Research conducted at Colorado State University indicates that Tordon 22K (picloram), Milestone (aminopuralid), Transline (clopyralid), Curtail (clopyralid + 2,4-D), or Banvel/Vanquish/Clarity (dicamba) control diffuse knapweed. Tank mixes of Banvel/Vanquish/Clarity plus 2,4-D at 1 pt + 2 pt/A or Banvel/Vanquish/Clarity control diffuse knapweed. Refer to Table 1 for rate and timing recommendations.

Table 1. Herbicide used to control diffuse and spotted knapweed.			
Herbicide	**Rate (Production/A)**	**Application timing**	**Comments**
Tordon	1 to 2 pints	Spring at rosette to mid-bolt growth stages; or fall	Use higher rates for older or dense stands
Milestone	5 to 7 fl oz	Spring at rosette to bolting growth stages; or fall	Use higher rate for older or dense stands; Milestone may be used to edge ponds or streams
Transline	0.67 to 1.33 pints	Spring after all shoots have emerged, rosette to early bud growth stages; or fall	Use higher rate for older or dense stands
Curtail	2 to 3 quarts	Spring after all shoots have emerged, rosette to early bud growth stages; or fall	User higher rate for older or dense stands
Banvel, Vanquish, or Clarity (diacamba)	1 to 2 pints	Spring rosette growth stage; or in fall	Use higher rate for older or dense stands

Tank mixes of Banvel/Vanquish/Clarity plus 2,4-D at 1 pint + 2 pints/A or Banvel/Vanquish/Clarity plus Tordon 22K at 1 to 2 pints + 0.5 to 1

pint/A or Tordon plus 2,4-D at 0.75 pint + 2 pints/A all control diffuse knapweed. These tank-mixes may save money and reduce grass injury resulting from higher use rates of a single herbicide. Adding 2,4-D to a tank mix, however, with very selective herbicides such as Tordon, Milestone, or Transline, broadens the spectrum of activity and may result in increased injury to desirable native forbs (broadleaf plants) and shrubs, which are important components of the plant community to resist re-invasion by weedy forbs (broadleaf weeds like diffuse and spotted knapweed).

Spotted knapweed and diffuse knapweed generally occupy the same areas in Colorado, so the same herbicide treatments can be applied. Weed scientists at Montana State University indicate that Tordon controls spotted knapweed for two to three years, but the weed will reinvade the area unless other management techniques are used. Milestone also is very effective to control spotted knapweed and Transline, Curtail, and Banvel/Vanquish/Clarity also control spotted knapweed and these herbicides too should be coupled with cultural control.

Cultural control - If desirable plant (grasses and forbs) competition is evident in diffuse or spotted knapweed stands, judicious herbicide application that does not injure desirable plants (especially grasses) may allow them to compete effectively with the weeds. Irrigation (where possible) may help stimulate grass competition in these cases. However,

infested rangeland or pastures often are degraded, allowing knapweed invasion, and herbicides alone will not restore the land to a productive state. Seeding suitable perennial grasses, forbs, and shrubs is necessary to prevent weed reinvasion.

(Beck, 2013)

Hoary cress

Keys to Control:
•Exhaust the root system and eliminate seed production by mowing or treating with herbicides.
•Maintain a healthy cover of perennial plants to discourage the establishment and spread of hoary cress.
Biocontrol. Currently, there is little information aboutbiological controls that attack hoary cress. Sheep grazing may control whitetop, but evidence is limited. Managing the grazing is important so desirable plant species are not damaged.
Mechanical: Mowing 2-3 times a year for several years may slow the spread and reduce seed production of hoary cress. Mowing may increase the effectiveness ofvsubsequent herbicide application (Sheley and Stivers 1999). Mowing should be conducted duringthe bud stage and repeated when the plants re-bud. The effectiveness of a mowing program can be increased by planting perennial grasses as competitors.

Fire: Rapid growth rate may favor hoary cress after fires which temporarily eliminate native vegetation. Plants may resprout from rhizomesor establish from seeds (FEIS 1996).
Herbicides:Hoary cress is most commonly controlled with herbicides. However, multiple applications are usually needed to provide lasting control. The best time to apply herbicides is in May or June before flowering. The non-crop herbicides etsulfuron and chlorsulfuron are themost effective herbicides as long as the plants still have green tissue (CSU1998a). It is important to use a non-ionic surfacet ant with the herbicide (Sheley and Stivers 1999). 2,4-D + dicamba is very effective when applied during the early pre-bud stage (late May through early June) (CSU 1998a). Glyphosate at 1.5 lb ai/acre applied during the flower stage will provide Weed Profile: Whitetop (Hoary cress) 3 good control of hoary cress. Picloram does not control whitetop. Also, spraying followed by spring mowing can control hoary cress by up to 90% (FEIS 1996).
Cultural/Preventive:
Cultivation alone will control hoary cress when tillage begins at flowerbud stage and is repeated every ten days throughout the growing seas on (FEIS 1996). Reseeding of depleted areas with competitive grasses would probably be an effective complement to sheep grazing. Also, nitrogen fertilization can increase the growth of grasses and slow the rate of whitetop invasion (Sheley and Stivers 1999).

(Baker)

Houndstongue

Management

Cultural control. Maintaining a healthy population of native perennials the best way to prevent the establishment and spread of houndstongue.

Mechanical control. Since houndstongue reproduces exclusively by seed, cutting or pulling plants should provide control. However, plants may re-grow if the root crown is not completely removed. Tillage, where practical, will control houdstongue. Mowing second year plants during flowering but before seed maturation may reduce see production and even kill the plant.

Chemical control.

Trade Name (common name)	Active ingredient/Acre (Product/Acre)	Remarks
Ally/Escort (metsulfuron)	1 oz. + surfactant (0.6 oz)	Apply in spring during bolting. Always add a non-ionic surfactant at 0.25% v/v
Plateau (imazapic)	8 to 12 fl oz (2 to 3 oz)	
Tordon 22K (picloram)	1 to 2 pt (0.25 to 0.5 lb)	Apply in spring when actively growing.
Vanquish/Clarity (dicamba)	1 to 2 qt (1 to 2 lb)	Apply in spring when actively growing.

(Baker, 2003)

Leafy spurge

Management

Leafy spurge is difficult to manage and can recover from almost any control effort. Therefore, a management scheme that combines control methods over four to five years is recommended. Even after that time, monitor infestations for recurrence and adopt a maintenance program.

Cultural control - Vigorous grass growth is an important aspect of leafy spurge control. Over-grazing stresses grasses and makes them much less competitive with weeds, leafy spurge in particular. Irrigation, where applicable, may favor grass growth and make it more competitive with leafy spurge.

Chemical control - For optimum leafy spurge control, proper timing of herbicide application is imperative. Research from North Dakota-State University indicates that Tordon 22K (picloram) 2,4-D, Banvel/Vanquish/Clarity (dicamba) are most effective when applied in spring when true flowers emerge (not just bracts). Fall application to leafy spurge regrowth also is good timing for these herbicides. Refer to Table 1 for rates and application timings.

Table 1. Herbicide rates and application timings to control leafy spurge.

Herbicide	Rate (Production/A)	Application timing	Comments
Tordon	1 quart	Spring at flowering growth stage; or fall	May need treatment 3 to 4
Plateau	8 to 12 fl oz	Early fall (August through October) before loss of latex	Use higher rate for older and dense stands; adds 1.5 to 2 pint/A of methylated seed oil; high rate or consecutive year treatments may injure cool season grasses
Banvel, Vanquish, or Clarity (diacamba)	2 quarts	Spring at flowering growth stage; or fall	Fall applications most consistent results; may need re-treatment 2 to 4 years
Roundup	1 quart each application; 2 quarts total	Apply sequentially; first application first of June and second one month later	Must be combined with grass seeding

Tordon is the most effective herbicide for leafy spurge control. Treat large, readily accessible areas for three to four consecutive years. For more remote locations, Tordon can be spot sprayed at 2/quarts/A but not more than 50% of an acre can be treated in any year. Monitor infestations after treatment and retreat with 1 quart/A of Tordon when shoot control is less than 75 percent.

Tordon may be tank-mixed with 2,4-D to provide adequate control. Apply 1 to 1.5 pints of Tordon with 1 to 1.5 quarts/A of 2,4-D in spring when leafy spurge flowers. When this application is made for three to five consecutive years, leafy spurge shoot control is generally 80 to 90 percent and cattle will feed in the area again.

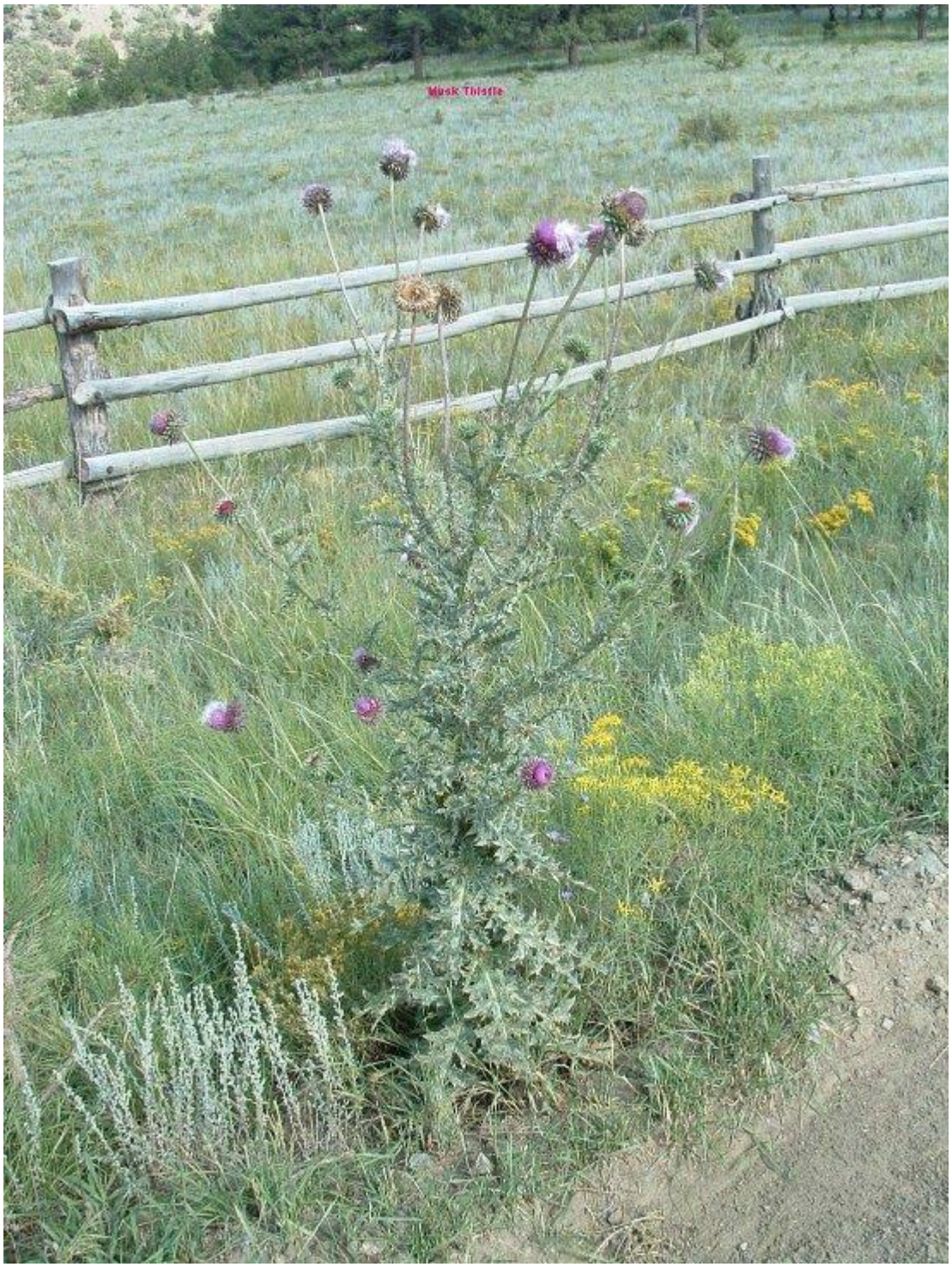
Plateau (imazapic) can be used to control leafy spurge in pastures, rangeland, and non-crop areas. It can be used safely around trees but may temporarily injure cool-season perennial grasses. Apply Plateau in fall while milky latex still is present in the plant. Add a methylated seed oil to the spray solution. A liquid nitrogen fertilizer solution may be added to the spray mixture to increase weed control, but it may increase cool-season perennial grass injury. Injury tends to increase with late fall applications.

Banvel/Vanquish/Clarity also is effective against leafy spurge. When applied in spring at flowering for three consecutive years. Often control is not very good in the first year but improves over the next two years. At that time, a maintenance schedule that uses low rates of Banvel/Vanquish/Clarity + 2,4-D (4 to 8 ounces + 0.5 to 1 quart/A), or Tordon + 2,4-D (1 pint + 1 quart/A) as needed can be used to keep infestations under control. **Note: Avoid using soil-active herbicides such as Tordon or Banvel/Vanquish/Clarity near windbreak plants or other desirable woody vegetation.** Plant injury or death can occur. Also, do not allow any herbicide to drift onto desirable woody vegetation for the same reasons.

Roundup (glyphosate) is most effective when applied sequentially at one month intervals, coupled with fall grass seeding. Make the first application at the beginning of June and a second application one month later. Occasionally, leafy spurge will recover from these Roundup treatments. An application of 2,4-D (2.0 quart/A) in September can control regrowth. Sow perennial grasses in later fall as a dormant seeding (seed later enough that grass seedlings will not emerge until following spring).

(Beck, 2013)

Musk thistle



Management

Cultural control - Maintaining pastures and rangeland in good condition is a primary factor for musk thistle management. To favor pasture and rangeland grass growth, do not

overgraze. Fertilize only when necessary and according to soil testing recommendations. To successfully manage musk thistle, prevent seed formation.

Mechanical control - Musk thistle will not tolerate tillage and can be removed easily by severing its root below ground with a shovel or hoe. Mowing can effectively reduce seed output if plants are cut when the terminal head is in the late-flowering stage. Gather and burn mowed debris to destroy any seed that has developed.

Chemical control - Several herbicides are registered in pasture, rangeland and noncrop areas to control musk thistle. Tordon 22K (picloram), Milestone, Transline, Banvel/Vanquish/Clarity (dicamba), 2,4-D, or Banvel/Vanquish/Clarity plus 2,4-D are commonly used. Apply these herbicides in spring or fall to musk thistle rosettes. Refer to Table 1 for rates and application timings. Applications during the reproductive growth stages with these herbicides (bud through flowering) will not eliminate viable seed development.

Escort (metsulfuron) or Cimarron Extra (chlorsulfuron) also can be used in pastures, rangeland, and non-crop areas. Research from Colorado State University and the University of Nebraska shows that chlorsulfuron or metsulfuron prevents or dramatically reduces viable seed formation when applied in spring, up to early flower growth stages. The latest time to apply these herbicides is when developed terminal flowers have opened up to the size of a dime. Add a good agricultural surfactant at 0.25 percent v/v2 to Escort or Cimarron Extra treatments or control is inadequate (equivalent to 1 quart of surfactant per 100 gallons of spray solution).

Table 1. Herbicide rates and application timings to control musk thistle.

Herbicide	Rate (Production/A)	Application timing	Comments
Tordon	0.5 to 1 pint	Spring at rosette growth stage; or in fall	Use higher rates for older or dense stands
Milestone	3 to 5 fl oz	Spring at rosette growth stage; or in fall	Use higher rate for older or dense stands; may be used to edge ponds or streams
Transline	0.67 to 1.33 pints	Spring at rosette to early bolting growth stages; or in fall	Use higher rate for older or dense stands
Banvel, Vanquish, or Clarity (diacamba)	1 to 2 pints	Spring rosette growth stage; or in fall	Use higher rate for older or dense stands
Cimarrron	0.5 oz	Spring rosette to early bud growth stages; or to fall rosettes	Add non-ionic surfactant at 0.25% v/v
Escort	0.5 oz	Spring to rosette to	Add non-ionic surfactant

		early bud growth stages; or to fall rosettes	at 0.25% v/v

Biological control - The Colorado Department of Agriculture has established a weevil, *Trichosirocalus horridus*. This weevil attacks the crown area of musk thistle rosettes and kills or weakens the plant before it bolts. This weevil is being distributed throughout Colorado by the Department of Agriculture. It tends to be more effective than the seed head weevil.

The musk thistle seed head weevil, *Rhinocyllus conicus*, can be found throughout Colorado. The female deposits her eggs on the back of developing flowers and covers them with chewed leaf tissue. After eggs hatch, larvae bore into the flower and destroy developing seed. The seed head weevil reduces seed production by 50 percent on the average. If used alone, however, it is not an effective management tool. Certain herbicides or mowing can be combined with the seed head weevil if these are used during late flowering stages. This allows the weevils to complete their life cycle and ensures their presence in subsequent growing seasons. The musk thistle seed head weevil is not being redistributed anymore because it attacks many different species of thistles, including native thistles.

(Beck, 2013)

Oxeye Daisy

Management

Cultural control - Prevent the establishment of new infestations by minimizing disturbance and see dispersal and maintain healthy native communities. Contact your local Natural Resources Conservation Service for seed mix recommendations. Bare ground is prime habitat for weed invasions.

Biological control - Goats or sheep can be effective in the control of Oxeye daisy. There are no insect biological controls available for Oxeye daisy. Since biological control agents take years to research, develop and release, no releases are expected in the foreseeable future. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

Mechanical control - Hand pull or dig when soil is moist and infestations are small. Oxeye daisy is fairly shallow rooted, make sure to pull up all of the roots. Bag specimens carefully so as to not scatter seeds if removed during or after flowering.

Chemical control -
NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. Rates are approximate and based on equipment with an output of 30 gal/acre.

HERBICIDE	RATE	APPLICATION TIMING
Metsulfuron (Escort XP)	1 oz product/acre plus 0.25% v/v non-ionic surfactant	Surfactant is absolutely necessary. Apply at flowering growth stage. 1 oz product is the minimum eradication rate based on best treatment observed in several CSU experiments. (Summer)
Chlorsulfuron (Telar)	1 oz product/acre plus 0.25% v/v non-ionic surfactant	Surfactant is absolutely necessary. Apply at flowering growth stage. (Summer)

Russian knapweed

Russian Knapweed

Management

Like other creeping perennials, the key to Russian knapweed control is to stress the weed and cause it to expend nutrient stores in its root system. An integrated management plan should be developed that places continual stress on the weed. Currently, the best management plan includes cultural control combined with mechanical and/or chemical control techniques. A single control strategy, such as mowing or a herbicide, usually is not sufficient.

Russian knapweed typically invades degraded areas, dominating the plant community and desirable plants (e.g. perennial grasses). Seeding competitive, perennial grass species (cultural control) after Russian knapweed has been stressed by other control measures (set-up treatments) is essential. Set-up treatments may include chemical or mechanical methods.

Cooperative research between Colorado State University and the University of Wyoming showed that chemical set-up treatments were superior to mowing. Curtail (clopyralid + 2,4-D), Escort (metsulfuron), and Roundup (glyphosate) were used to suppress Russian

knapweed. Then perennial grasses were sown in late fall as a dormant seeding. Tillage is necessary to overcome the residual allelopathic effects of Russian knapweed. Curtail (3 quarts per acre) (A) or Escort (1 ounce/A) were applied at the bud-growth stage. Roundup was applied twice at 1 quart/A, first at the bud-growth stage and again about 8 weeks later. Curtail controlled Russian knapweed best and Roundup failed to control it.

None of the herbicides injured seeded grasses. Grasses established similarly among herbicide suppression treatments, even though Russian knapweed control varied. However, where Escort or Roundup was used to suppress Russian knapweed, additional herbicide treatments would be necessary to achieve acceptable control.

While two mowings eight weeks apart (first at bud growth stage), suppressed Russian knapweed during that year, the weed recovered vigorously the subsequent growing season. Perennial grasses established in the mowing treatments but much less than in herbicide treatments. Seeding desirable forbs and shrubs also may be effective to prevent Russian knapweed reinvasion, but research is necessary to test this hypothesis.. Two mowings per year for several years may control Russian knapweed better than in our experiments, but further research also is needed to test this hypothesis. Currently no biological control is available for this weed.

Chemical control - In most circumstances, an herbicide alone will not effectively manage Russian knapweed. However, there may be situations where desirable plants within a Russian knapweed infestation may compete effectively with the weed if it is stressed with a single weed management technique.

Figure 5. Russian knapweed root buds on crowns in fall; note black/brown scaly appearance to root crowns—a key identifying characteristic.

Figure 6. Russian knapweed emerged rosettes in fall.

Russian knapweed is controlled by Tordon 22K (picloram), Milestone (aminopyralid), Transline (clopyralid), Curtail, (clopyralid + 2,4-D), and Telar. Refer to Table 1 for rates and timing recommendations. Russian knapweed is very susceptible to fall-applied herbicides. It displays a distinct cycle of root bud development. In late summer (August

into early September) Russian knapweed begins to develop buds on its roots that will emerge to form rosettes that fall or the following spring (Figures 5 and 6). Root buds continue to grow throughout the winter but once rosettes emerge in spring, remaining root buds slough off and no buds occur on roots until this cycle begins again in late summer. This active root bud growth and development in fall through winter may be the reason that Russian knapweed is susceptible to herbicides applied in fall and winter.

Table 1. Herbicide used to control Russian knapweed.

Herbicide	Rate (Production/A)	Application timing	Comments
Tordon	2 to 4 pints	Spring at bud to mid-flowering growth stages; or late in fall	Use higher rates for older or dense stands; late treatments in fall to dormat plants very effective
Milestone	4 to 6 fl oz	Spring and summer at bud to flowering growth stages; or late in fall	Use higher rate for older stands; late treatments in fall to dormant plants very effective; Milestone may be used to edge of ponds or streams
Transline	1 to 1.33 pints	Spring after all shoot have emerged, bud to mid-flower growth stages; late in or fall	Use higher rate for older or dense; late treatments in fall to dormant plants very effective
Curtail	3 to 4 quarts	Spring after all shoots have emerged, bud to mid-flower growth stages; late in or fall	Use higher rate for older or dense; late treatments in fall to dormant plants very effective
Telar	1 oz	Spring bud to flowering growth stage; or late in fall	Late treatments in fall to dormant plants very effective; temporary injury to cool season grasses may occur from fall treatments

(Beck, 2013)

Scentless Chamomile

How to control it

- The key to control for scentless chamomile is to prevent it from going to seed. In Gilpin County, it will start going to seed mid-July.
- Scentless chamomile has a shallow root system, which allows it to be pulled or dug relatively easily.
- There is no biological control for this plant.
- Herbicides such as Roundup are fairly effective when applied at label rates.
- Cultural controls, such as increasing desirable grass levels, may also help outcompete the weed.
- Because of the long-lived seed bank, control efforts will have to be maintained for a number of years.

6. Monitoring Plan

UMC will monitor the site for any noxious weed species on the Chaffee/Lake county list during the duration of the operation. UMC will have the local weed control expert inspect the property in late July. He/she will be asked to identify any new noxious weed infestations and make any recommendations to the current management techniques.

UMC will review both the local weed inspector's recommendations as well as section 5 (Control Methods and Treatment Windows) and implement suggested techniques to manage any newly identified species or to make changes to the existing control methods.

References:

Baker, D. V. (2003). Retrieved from http://www.gunnison.colostate.edu/agri/weedsb/weed_docs/hoarycress.pdf

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Beck, K. G. (2013, March 26). Retrieved from http://www.ext.colostate.edu/pubs/natres/03102.html

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(n.d.). Retrieved from http://www.extension.colostate.edu/gilpin/natu/natu_docs/camomile.shtml

(n.d.). Retrieved from http://www.cwma.org/Oxeye.html

APPENDIX 13-4

LAKE COUNTY
- BUILDING PERMIT

REQUIRED LAKE COUNTY BUILDING INSPECTIONS

1. Footer and Foundation Inspection: To be made after trenches are excavated and forms erected and when all materials for the foundation are delivered on the job. Where concrete from a central mixing plant (commonly termed "transit mixed") is to be used, materials need not be on the job.

2. Frame Inspection: To be made after the roof, all framing, fireblocking, and bracing are in place and all pipes, chimneys and all vents are complete. After rough electrical.

3. Lath and/or Wallboard Inspection: To be made after all lathing and/or wallboard, interior and exterior, is in place; But before any plastering is applied or before wallboard joints and fasteners are taped and finished.

4. Final Inspection: To be made after building is completed and ready for occupancy. Final electrical must be done.

   Other Inspections: In addition to the required inspections specified above, the Building Official may make or require any other inspections of any construction work to ascertain compliance with the provisions of this Code and other laws which are enforced by the Building Department.

Make a drawing of your site. Indicate the dimensions of the front, side and rear property lines. Specify which property line is front, the name of the frontage road, and indicate which way is north. Also, indicate all pre-existing structures, their use, size and location on the site. Indicate location of proposed new construction. A complete set of blue prints are required with application.

****

I hereby acknowledge that I have read this application and state that information given is correct and agree not to start this project until this application is approved and permit issued. I understand that I must give a 24 hour notice on all required phases of construction.

Date of Application DECEMBER 9, 1987

APPLICANT'S SIGNATURE Donald H. Hilson Pres

LEADVILLE MINING & MILLING CORP.

No. 48517 **County Treasurer's Office, Lake County, Colorado**

#3523

Leadville, Colo., [illegible]

Received of Leadville Mining & Milling Corp [illegible]

[illegible]

Account of		$	
"	[illegible]	$	
"	[illegible]	$	[illegible]
"	[illegible]	$	
"	[illegible]	$	

[illegible signature]

Cash Book Page ________ By [illegible]

THE C. F. HOECKEL CO., DENVER (T 3)

LAKE COUNTY, COLORADO

BUILDING PERMIT

No. 00936

ESTIMATED COST	FEE	DATE	ZONING DISTRICT	S. D.	SQUARE FEET
$78,948.00	$370.00	December 23, 1987	IM		3600

CONTRACTOR OR OWNER	ADDRESS OF JOB
Leadville Mining & Milling Corp.	

LEGAL DESCRIPTION

Sec. 28, TS.9S., R.80W.

PERMISSION IS HEREBY GRANTED TO construct A one STORY flotation & gravity mi

CONDITIONS:

(1) THIS PERMIT WAS ISSUED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN YOUR APPLICATION AND IS SUBJECT TO THE LAWS OF THE STATE OF COLORADO AND TO THE ZONING REGULATIONS AND BUILDING CODE OF LAKE COUNTY.

(2) THIS PERMIT SHALL EXPIRE IF (A) THE WORK AUTHORIZED IS NOT COMMENCED WITHIN SIXTY (60) DAYS FROM ISSUE DATE OR (B) THE BUILDING AUTHORIZED IS SUSPENDED OR ABANDONED FOR A PERIOD OF SIXTY (60) DAYS.

(3) IF THIS PERMIT EXPIRES, A NEW PERMIT MAY BE ACQUIRED FOR A FEE OF ONE-HALF THE AMOUNT NORMALLY REQUIRED: PROVIDED NO CHANGES HAVE BEEN OR WILL BE MADE IN THE ORIGINAL PLANS AND SPECIFICATIONS AND ANY SUSPENSION OR ABANDONMENT HAS NOT EXCEEDED ONE (1) YEAR. IF CHANGES ARE MADE OR IF SUSPENSION OR ABANDONMENT EXCEEDS ONE (1) YEAR, FULL FEES SHALL BE PAID FOR A NEW PERMIT.

(4) NO WORK OF ANY MANNER SHALL BE DONE THAT WILL OBSTRUCT THE NATURAL FLOW OF WATER CAUSING A DRAINAGE PROBLEM.

(5) CONTRACTOR SHALL NOTIFY THE BUILDING INSPECTOR TWENTY-FOUR (24) HOURS IN ADVANCE FOR ALL INSPECTIONS AND SHALL RECEIVE WRITTEN APPROVAL ON INSPECTION CARD BEFORE PROCEEDING WITH SUCCESSIVE PHASES OF THE JOB.

White copy - Building Inspector
Yellow copy - Permittee
Pink copy - Lake County Assessor

Donald [illegible signature]
CHIEF BUILDING INSPECTOR BY ________

THIS PERMIT IS NOT TRANSFERABLE

INSPECTIONS WILL NOT BE MADE UNLESS THIS CARD IS POSTED ON THE JOB

24 HOURS NOTICE REQUIRED FOR INSPECTIONS

BUILDING PERMIT

Lake County, Colorado

Date Issued 12-23-87 **Zoned Area** IM **Permit No.** 00936

AGREEMENT

In consideration of the issuance of this permit, the undersigned hereby agrees to comply with all such laws and regulations in the location; construction and erection of the proposed structure for which this permit is granted, and further agrees that if the above said ordinances are not fully complied with in the location, erection and construction of the above described structure, the permit may then be revoked by notice from the County Building Inspector and THEN AND THERE IT SHALL BECOME NULL AND VOID.

Use MILL Owner LEADVILLE MINING & MILLING CORP.

Address Box 552 - LEADVILLE CO 80461

LEGAL DESCRIPTION:

Sec 28, TS. 9S., R 80W.

NOTICE

THIS PERMIT IS NULL AND VOID IF PRE-FEBRICATED UNITS ARE NOT INDICATED TO BE PREFABRICATED

SEPARATE PERMITS ARE REQUIRED FOR PLUMBING, ELECTRICAL AND HEATING.

N.....S.....E.....W.....

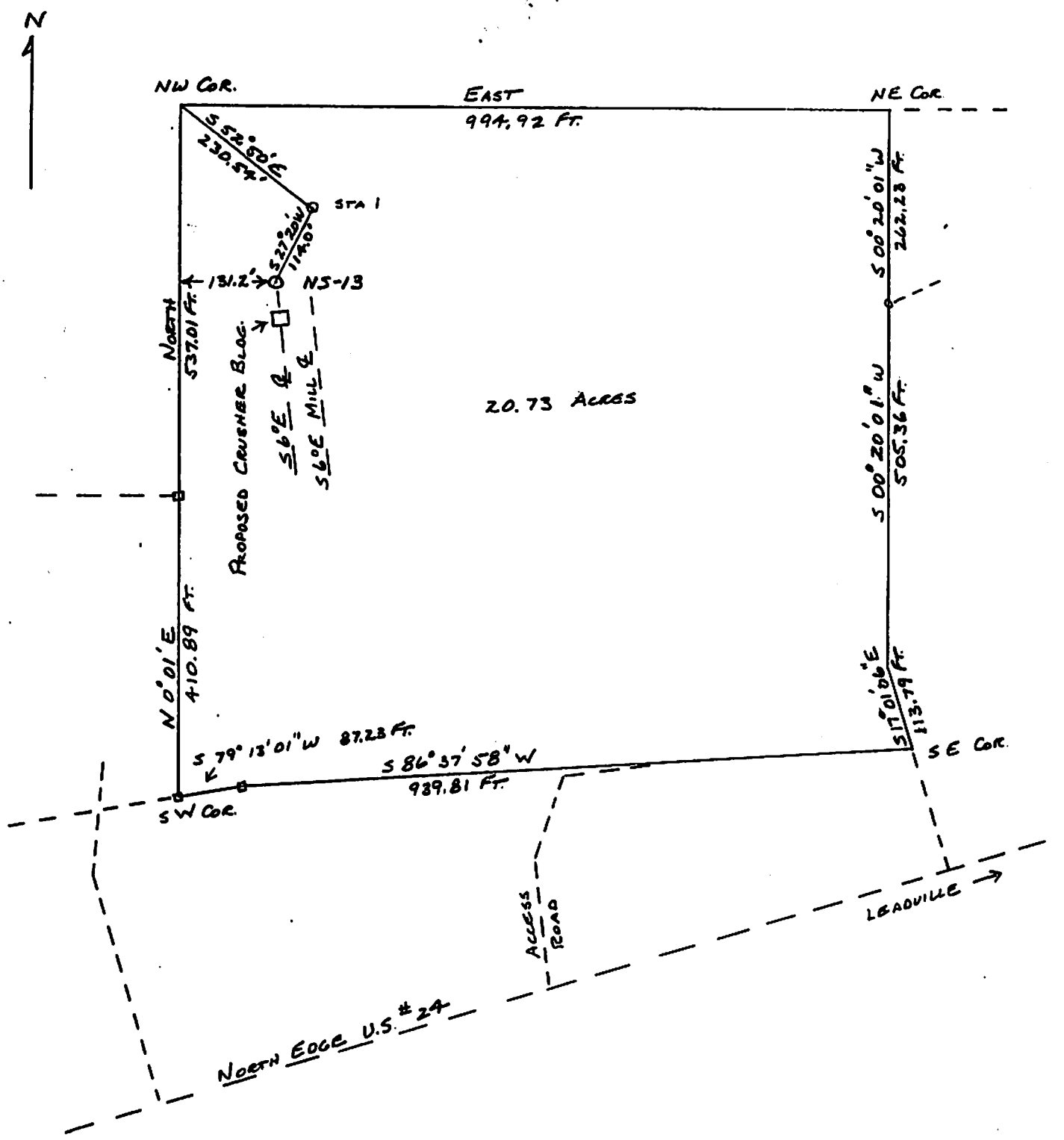
INSPECTORS MUST SIGN ALL SPACES BELOW BEFORE WORK PROCEEDS ON NEXT STEP	RE-INSPECTIONS
Inspector Date	
Footings	
Rough Elect.	
Framing	
Final Building	
Final Electrical	

THIS PERMIT IS NOT TRANSFERABLE

Leadville, Colorado **Phone 486-1796**

DO NOT DESTROY THIS CARD

This card must be returned to the Building Department with all inspections signed before a



LEADVILLE MINING & MILLING CORP.

MILLSITE SURVEY SECS. 28 & 33 T9S R80W

BOUNDRY SURVEY BY BACKLUND LAND SURVEYS, FRISCO, COLO JULY, 1986
MILLSITE SURVEY BY CALVIN HAUSER JAN., 1987

1" = 200'

$ 68 50

YOUR RECEIPT, THANK YOU

County Treasurer's Office, Lake County, Colorado

Leadville, Colo., Nov 5, 1987

ed of Leadville Mining & Milling Corp

eight & 50/00 DOLLARS

CREDIT OF

$ Fund

uilding Permit $ "

28-9-80 $ County General "

$ "

$ "

James A Faircloth, Treasurer

By SC, Deputy

ge

THE C. F. HEDKEL CO., DENVER (T 3)

LAKE COUNTY, COLORADO

BUILDING PERMIT

933

ESTIMATED COST	FEE	DATE	ZONING DISTRICT	S. D.	SQUARE FEET
$7,752.00	$68.50	November 12, 1987	IM		480

CONTRACTOR OR OWNER: Leadville Mining & Milling Corp

ADDRESS OF JOB:

LEGAL DESCRIPTION: Sec. 28 TS9S R80W

PERMISSION IS HEREBY GRANTED TO construct A one STORY mill crusher

CONDITIONS:

(1) THIS PERMIT WAS ISSUED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN YOUR APPLICATION AND IS SUBJECT TO THE LAWS OF THE STATE OF COLORADO AND TO THE ZONING REGULATIONS AND BUILDING CODE OF LAKE COUNTY.

(2) THIS PERMIT SHALL EXPIRE IF (A) THE WORK AUTHORIZED IS NOT COMMENCED WITHIN SIXTY (60) DAYS FROM ISSUE DATE OR (B) THE BUILDING AUTHORIZED IS SUSPENDED OR ABANDONED FOR A PERIOD OF SIXTY (60) DAYS.

(3) IF THIS PERMIT EXPIRES, A NEW PERMIT MAY BE ACQUIRED FOR A FEE OF ONE-HALF THE AMOUNT NORMALLY REQUIRED; PROVIDED NO CHANGES HAVE BEEN OR WILL BE MADE IN THE ORIGINAL PLANS AND SPECIFICATIONS AND ANY SUSPENSION OR ABANDONMENT HAS NOT EXCEEDED ONE (1) YEAR. IF CHANGES ARE MADE OR IF SUSPENSION OR ABANDONMENT EXCEEDS ONE (1) YEAR, FULL FEES SHALL BE PAID FOR A NEW PERMIT.

(4) NO WORK OF ANY MANNER SHALL BE DONE THAT WILL OBSTRUCT THE NATURAL FLOW OF WATER CAUSING A DRAINAGE PROBLEM.

(5) CONTRACTOR SHALL NOTIFY THE BUILDING INSPECTOR TWENTY-FOUR (24) HOURS IN ADVANCE FOR ALL INSPECTIONS AND SHALL RECEIVE WRITTEN APPROVAL ON INSPECTION CARD BEFORE PROCEEDING WITH SUCCESSIVE PHASES OF THE JOB.

White copy - Building Inspector
Yellow copy - Permittee
Pink copy - Lake County Assessor

Harold A Cooper BY SC
CHIEF BUILDING INSPECTOR

THIS PERMIT IS NOT TRANSFERABLE

INSPECTIONS WILL NOT BE MADE UNLESS THIS CARD IS POSTED ON THE JOB

24 HOURS NOTICE REQUIRED FOR INSPECTIONS

BUILDING PERMIT

Lake County, Colorado

Date Issued 11-12-87 **Zoned Area** IM **Permit No.** 00933

AGREEMENT

In consideration of the issuance of this permit, the undersigned hereby agrees to comply with all such laws and regulations in the location; construction and erection of the proposed structure for which this permit is granted, and further agrees that if the above said ordinances are not fully complied with in the location, erection and construction of the above described structure, the permit may then be revoked by notice from the County Building Inspector and THEN AND THERE IT SHALL BECOME NULL AND VOID.

Use MILL CRUSHER Owner LEADVILLE MINING & MILLING CORP

Address P.O. BOX 552 - LEADVILLE CO 80461

LEGAL DESCRIPTION:

Sec 28 T5 9S R80W

NOTICE

THIS PERMIT IS NULL AND VOID IF PRE-FEBRICATED UNITS ARE NOT INDICATED TO BE PREFABRICATED

SEPARATE PERMITS ARE REQUIRED FOR PLUMBING, ELECTRICAL AND HEATING.

N.....S.....E.....W.....

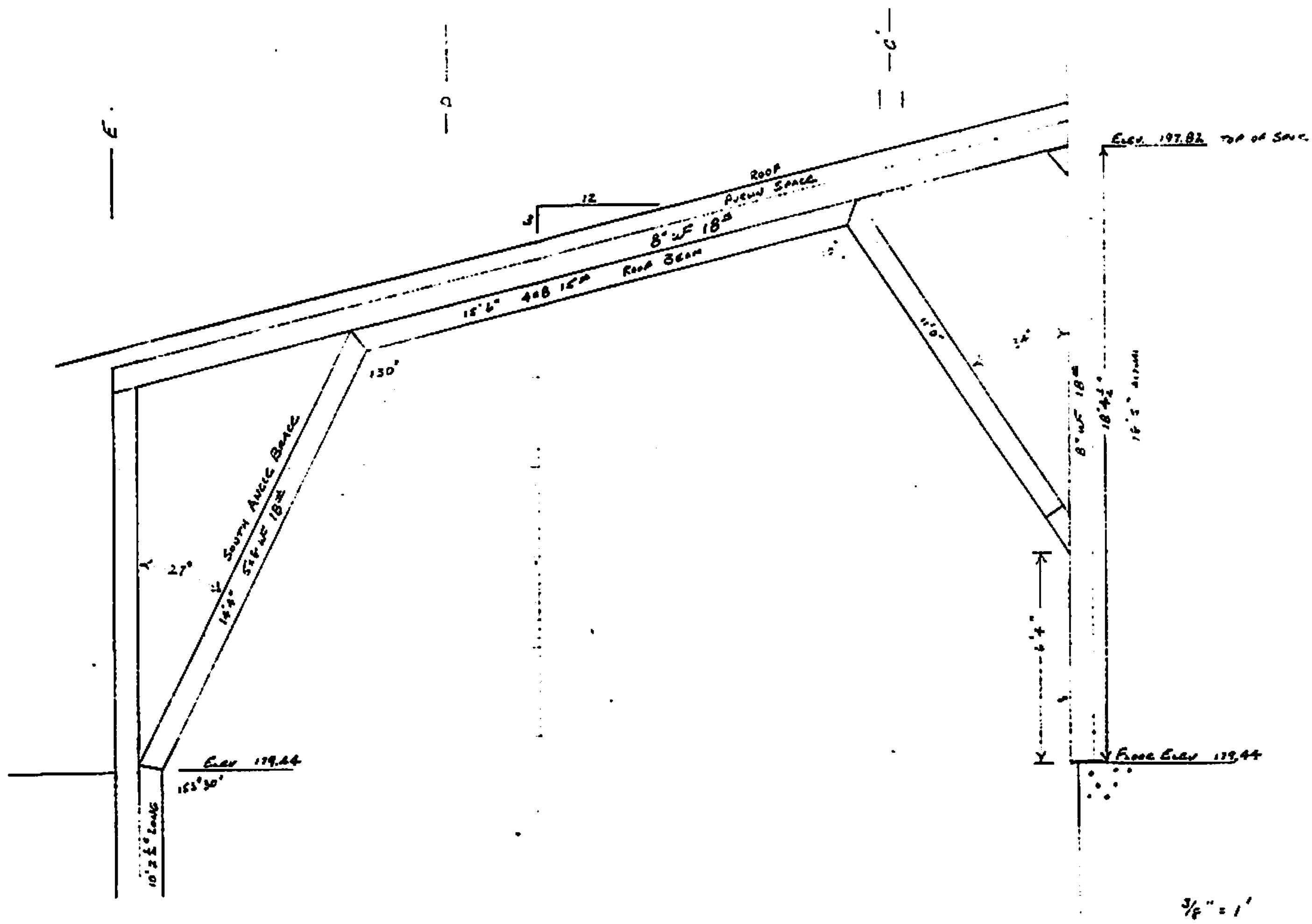
INSPECTORS MUST SIGN ALL SPACES BELOW BEFORE WORK PROCEEDS ON NEXT STEP	RE-INSPECTIONS
Inspector Date	
Footings	
Rough Elect.	
Framing	
Final Building	
Final Electrical	

THIS PERMIT IS NOT TRANSFERABLE

Leadville, Colorado **Phone 486-1796**

DO NOT DESTROY THIS CARD

This card must be returned to the Building Department with all inspections signed before a Certificate of Occupancy is issued.



E
D
C
ROOF
PURLIN SPACE
12
3
8" WF 18#
15'6" 4x8 15# ROOF BEAM
130°
SOUTH ANGLE BRACE
14'8" 5x6 WF 18#
27°
ELEV 179.44
153°30'
10'2½" LONG
11'0"
8" WF 18#
18'4½"
ELEV. 197.82 TOP OF SPRG.
6'4"
FLOOR ELEV 179.44
19'6" TO FLOOR
3/8" = 1'

GIVENS: LIVE LOAD SNOW: 80# ON ROOF SLOPES > 3/12
120 # ON ROOF SLOPES < 3/12

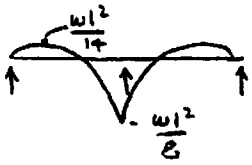
DEAD LOAD: DECKING: 26 GA 1#/SF
PURLINS 14 GA @ 3FT 1#/SF } SAY 5 PSF MAX
BEAMS 54# ÷ 40' 1.35

CHECK DECK $w = 125\#$ / $l = 3$ FT / $S = 0.035$ IN3/F = 52KSI

$$M = \frac{wl^2}{8} = \frac{.125(3)^2}{8} = .140 \text{ K.FT.}$$

$$S_{REQD} = \frac{.14(12)}{52} = 0.032$$ OK ←

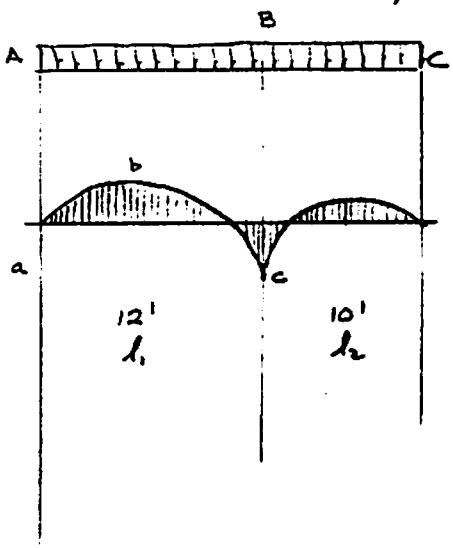
CHECK PURLINS: 6 x 2½ x 14 GA $S = 2.1$
$w = 125(3) = .375$ K/BF / $l = 19$ FT / $S = 1.6$ / $f_y = 55$ KSI
reduce 80 #/sq ft live load by 24.5% ∴ $w = 95 + 5$?



$M_{MID\ SPAN}$ $\frac{wl^2}{14} = \frac{375\ (19^2)}{14} =$ 9.7 K.FT.

$$S_{REQD} = \frac{9.7\ (12)}{55} = 2.1$$ OK ←

CHECK BEAM AT UPPER LEVEL / SLOPE = 1/12 / $w = 125$ / $l = 12' \& 10'$
BEAM IS W8 x 18.5 / $S = 15.5$ / $I = 62$



Theorem of 3 Moments

$$M_a\left(\frac{l_1}{I_1}\right) + 2M_b\left(\frac{l_1}{I_1} + \frac{l_2}{I_2}\right) + M_c\left(\frac{l_2}{I_2}\right) = \frac{1}{4}\left(\frac{w_1 l_1^3}{I_1} + \frac{w_2 l_2^3}{I_2}\right)$$

$M_a = 0$ M_c = propped cantilever = $\frac{wl^2}{8} = \frac{2.5\ (12^2)}{8} = 45$ K' ∴ 540

$$2M_b\left(\frac{144}{62} + \frac{120}{62}\right) + 540\left(\frac{120}{62}\right) = \frac{1}{4}\left(\frac{0.21\ (144^3)}{62} + \frac{0.21\ (120^3)}{62}\right)$$

$2.32 + 1.94 + 1045 = \frac{1}{4}(10114 + 5853)$

$8.52\ M_b = 2947$

$M_b = 345$ K" = K'

$S_{REQD} = 16.88$ WE HAVE 15.5
= 8.9% OVER STRESS

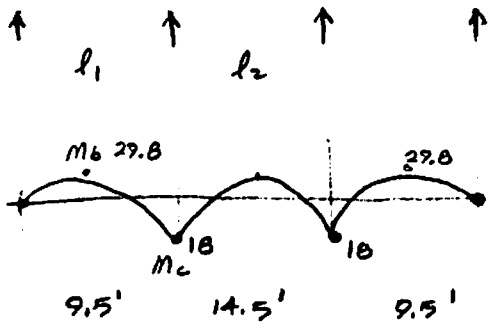
CHECK $\frac{wl^2}{8} = 45$ ≤ 22.5

RECHECK: with live load reduction $R = r(A - 150) = .16(480 - 150)$
$= 52.80$
$R = 23.1\left(1 + \frac{D}{L}\right) = 24.5$ MAX

934-5569
baldry associates
architects/engineers/planners
47 so. federal blvd
denver, co. 80219

STATE OF COLORADO
WILLIAM GEORGE BALDRY, JR.
C-845
LICENSED ARCHITECT

BEAM @ LOWER LEVEL



$$M_a\left(\frac{l_1}{I_1}\right)+2M_b\left(\frac{l_1}{I_1}+\frac{l_2}{I_2}\right)+\frac{M_c\,l_2}{I_2}$$

$$=\pm 1/4\left(\frac{w_1 l_1^3}{I_1}+\frac{w_2 l_2^3}{I_2}\right)$$

- 10' : $w_1 = w_2 = 1.6$ K/LF; $I_1 = I_2 = 62$

$= 0.133$ K/IN

$$M_a\left(\frac{114}{62}\right)+2M_B\left(\frac{114}{62}+\frac{174}{62}\right)+M_c\left(\frac{174}{62}\right)$$

$$=-\frac{1}{4}\left[\frac{.133(114^3)}{62}+\frac{.133(174^3)}{62}\right]$$

$\therefore \quad = -1/4(3178 + 11300) = 3919$

if $M_a = 0$: $2M_b(4.64)+M_c(2.81) = 3919$

$9.28M_b + 2.8M_c = 3919$

M_c (propped cantilever) $= \frac{wl^2}{8} = 216$ K"

$9.28M_b = -3919 - 2.8(216) =$

$= +487$ K IN $= 40.6$ K FT

$S_{REQD} = 20.3$ CANT BE

M_c is NEG MOMENT

$\therefore \quad 9.28M_b = +3919 - 2.8(216) =$

$M_b = 357$ K IN $= 29.8$ K FT

$S_{REQD} = 14.8$ ← OK

For middle span

$18^{x12} + 2M_b(4.64) + 18^{x12} = -3919$

$9.28M_b = 3487 = 375$ K IN

$M_b = 375$ K IN

$= 31.3$ K FT

$S_{REQD} = 15.65$ IN^3 ← OK

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WILLIAM GEORGE BALDRY, JR.
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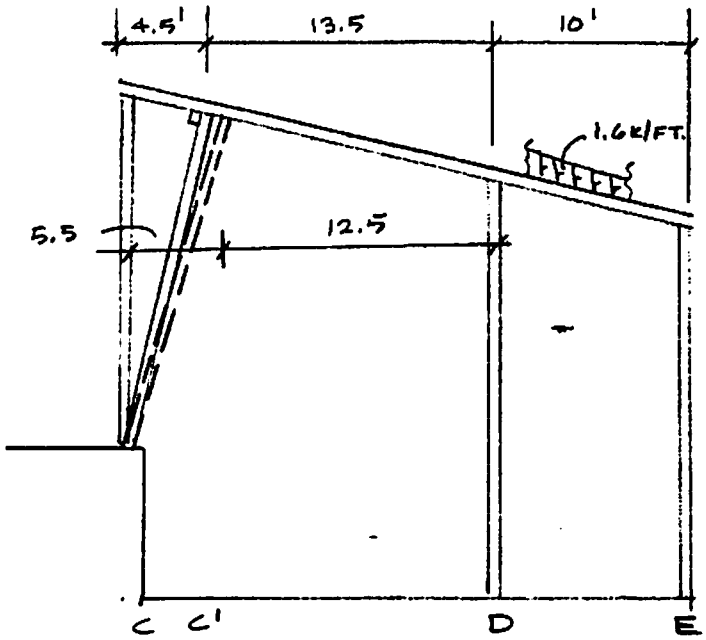
LICENSED ARCHITECT

BEAM AT MIDLEVEL



$M_a = \frac{wl^2}{8} = \frac{1.6(4.5)^2}{8} = 4.05^{K'} = 48.6^{K''}$

$M_c = \frac{wl^2}{8} = \frac{1.6(10)^2}{8} = 20^{K'} = 240^{K''}$

$$M_a \frac{l_1}{I_1} + 2M_b\left(\frac{l_1}{I_1} + \frac{l_2}{I_2}\right) + M_c\left(\frac{l_2}{I_2}\right) = \frac{1}{4}\left(\frac{w_1 l_1^3}{I_1} + \frac{w_2 l_2^3}{I_2}\right)$$

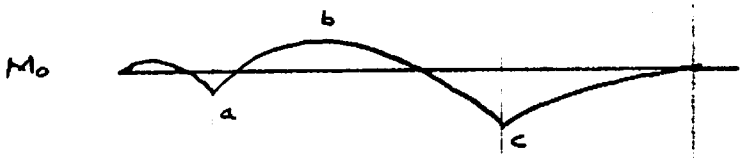
$$48.6\left(\frac{54}{62}\right) + 2M_b\left(\frac{54}{62} + \frac{162}{62}\right) + 240\left(\frac{162}{62}\right) = \frac{1}{4}\left(\frac{.13(54^3)}{62} + \frac{.13(162^3)}{62}\right)$$

$$42.3 + 2M_b(.87 + 2.61) + 627 = \frac{330 + 8914}{4}$$

$$2(3.48)M_b = 2980$$

$$= 428^{K''} = 35.7^{K'}$$

$S = 17.8\ IN^3$



Reducing live load by 24.5% reduces total w by 20% + or -

$\therefore$ S reduced by 20% also = $14.27\ IN^3$

$\therefore$ OK

IF REDUCTION NOT ALLOWED THEN MOVE C' TO INTERSECT ROOF BEAM 5'-6" FROM POINT "C"

$$72.6\left(\frac{66}{62}\right) + 2M_b\left(\frac{66}{62} + \frac{150}{62}\right) + 240\left(\frac{150}{62}\right) = \frac{1}{4}\left(\frac{.13(66^3)}{62} + \frac{.13(150^3)}{62}\right)$$

$$2M_b(3.48) + 77.28 + 580 = \frac{1}{4}(603 + 7076)$$

$$6.96M_b = 1920 + 77 + 580 = 2577$$

$$M_b = 370^{K''} = 30.85^{K'}$$

$S = 15.42\ IN^3$ OK

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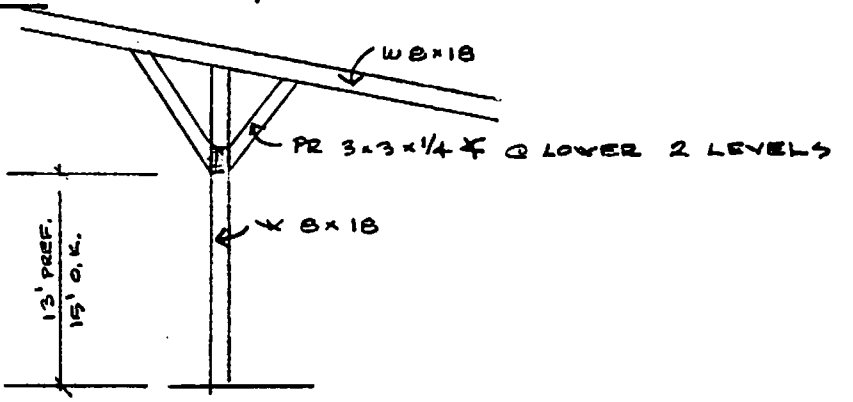
STATE OF COLORADO
WILLIAM GEORGE BALDRY, JR.
C-845
LICENSED ARCHITECT

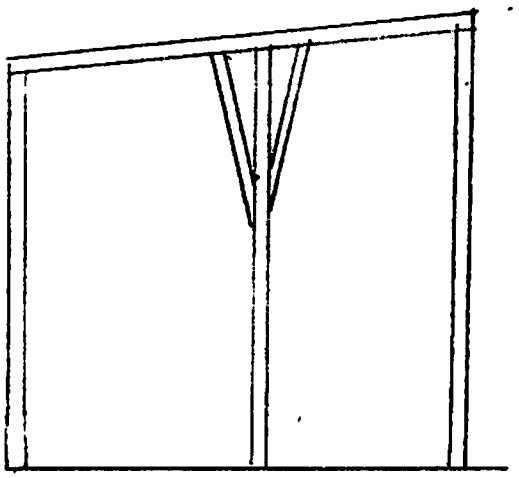
CHECK COLS:

LOCATION	LOAD	LENGTH	
A	6.25	10'	
B	31.6	12'	WELDED TO ORE BIN
C	21	18'	
C'	15.3	17'	PER TABLES ALL LOADS OK
D	20.4	20'	BUT LENGTHS OVER 15' A PROBLEM
E	17.0	12'	PROVIDE BRACING AS REQUIRED
F	20.4	14'	
G	20.4	11'	
H	8.5	8'	

TYPICAL - COL BRACING - COLS # C & D



AT UPPER LEVEL - USE W 8×13 TO BRACE COLUMN & TO SHORTEN SPAN



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STATE OF COLORADO
WILLIAM GEORGE BALDRY, JR.
C-845
LICENSED ARCHITECT

LAKE COUNTY BUILDING PERMIT APPLICATION

APPLICANT

Name: LEADVILLE MINING & MILLING CORP.

Mail Address: P.O. Box 552

City: LEADVILLE, COLO 80461

Tel. No.: 486-2604 OR 486-3000

CONTRACTOR

Name: _____

Address: _____

City: _____

Tel. No.: _____

ARCHITECT ENGINEER

Name: _____

Address: _____

City: _____

State License No.: _____

Tel. No.: _____

TYPE OF BUILDING

Dwell ___ Comm ___ Indust X Other _____

Brick ___ Block ___ Frame ___ Other STEEL

No.Stories 1 No.Units 1 No. Rooms 1

LEGAL DESCRIPTION

Sec. 28 TS. 9-S R. 80W

Subdivision _____

Unit _____ Block _____ Lot _____

Lot Size, Width _____ Depth _____ Area _____

Water Service By NONE YET

Approved Septic Permit NONE YET

Job location address 13867 U.S Hwy #24

IF PERMIT FOR MOBILEHOME – ADDRESS OF CURRENT LOCATION _____

PLANNING AND ZONING INFORMATION

Type of occupancy: INDUSTRIAL - MILL CRUSHER BUILDING

Total floor area 16' x 18' + 12' x 16' ORE BIN

Bsmt. Area Sq. Ft. _____

Ground Floor Area Sq. Ft. 288 SQ FT + 192

Second Floor Area Sq. Ft. NONE

Garage Area Sq. Ft. _____

Other _____

Total Height: 26'

Front Yard Setback: _____

Side Yard Setback: _____

Rear Yard Setback: _____

PERMIT #

933

DO NOT WRITE IN THIS SPACE

Zoning IM

Approved _____

Disapproved _____

Violation of Article _____

Plan Approved _____

Disapproved _____

Correction _____

Responsible

Engineer _____

Contractor _____

Owner _____

Building Costs $ 7,752.00

Building Permit Fee $ 68.50

LAKE COUNTY BUILDING INSPECTOR

Donald Seffs

Date of Approval 11-4-87

REQUIRED LAKE COUNTY BUILDING INSPECTIONS

1. Footer and Foundation Inspection: To be made after trenches are excavated and forms erected and when all materials for the foundation are delivered on the job. Where concrete from a central mixing plant (commonly termed "transit mixed") is to be used, materials need not be on the job.

2. Frame Inspection: To be made after the roof, all framing, fireblocking, and bracing are in place and all pipes, chimneys and all vents are complete. After rough electrical.

3. Lath and/or Wallboard Inspection: To be made after all lathing and/or wallboard, interior and exterior, is in place; But before any plastering is applied or before wallboard joints and fasteners are taped and finished.

4. Final Inspection: To be made after building is completed and ready for occupancy. Final electrical must be done.

   Other Inspections: In addition to the required inspections specified above, the Building Official may make or require any other inspections of any construction work to ascertain compliance with the provisions of this Code and other laws which are enforced by the Building Department.

Make a drawing of your site. Indicate the dimensions of the front, side and rear property lines. Specify which property line is front, the name of the frontage road, and indicate which way is north. Also, indicate all pre-existing structures, their use, size and location on the site. Indicate location of proposed new construction. A complete set of blue prints are required with application.

****

I hereby acknowledge that I have read this application and state that information given is correct and agree not to start this project until this application is approved and permit issued. I understand that I must give a 24 hour notice on all required phases of construction.

Date of Application October 15, 1987

APPLICANT'S SIGNATURE Donald H. Wilson

INSPECTIONS WILL NOT BE MADE UNLESS
THIS CARD IS POSTED IN A CONSPICUOUS PLACE
24 HOURS NOTICE REQUIRED FOR INSPECTIONS

BUILDING PERMIT

Lake County, Colorado

Date Issued 11-12-87 **Zoned Area** IM **Permit No.** _____

AGREEMENT

In consideration of the issuance of this permit, the undersigned hereby agrees to comply with all such laws and regulations in the location; construction and erection of the proposed structure for which this permit is granted, and further agrees that if the above said ordinances are not fully complied with in the location, erection and construction of the above described structure, the permit may then be revoked by notice from the County Building Inspector and THEN AND THERE IT SHALL BECOME NULL AND VOID.

Use Mill Crusher **Owner** Leadville Mines & Mining Corp

Address P.O. Box 552 - Leadville Co 80461

LEGAL DESCRIPTION:

Sec 28 T 9 S R 80 W

NOTICE

[illegible] PERMITS ARE REQUIRED FOR [illegible]

N...... **S.**..... **E.**..... **W.**.....

INSPECTORS MUST SIGN ALL SPACES BELOW BEFORE WORK PROCEEDS ON NEXT STEP		RE-INSPECTIONS
	Inspector / Date	
Footings		
Rough Elect.		
Framing	OK DS 8-8-90	
Final Building	OK DS 8-8-90	
Final Electrical		

THIS PERMIT IS NOT TRANSFERABLE

Leadville, Colorado **Phone 486–1796**

DO NOT DESTROY THIS CARD

This card must be returned to the Building [illegible]

APPENDIX 13-5

LAKE COUNTY
- CERTIFICATE OF OCCUPANCY

CERTIFICATE OF OCCUPANCY

Issued Without Fee

LAKE COUNTY
Lake County Courthouse
Leadville, Colorado 80461

Permit Number 933

Date October 5, 1990

This certificate verifies that the building constructed under above permit number and on property described below, does comply with the Lake County Building Code.

CONTRACTOR _____

PROPERTY ADDRESS ~~13867~~ 13815 U. S. Highway #24

LEGAL DESCRIPTION:

SEc. 28, TS.9S., R.80W.

FOR THE FOLLOWING PURPOSE: Mill Crusher

OWNER Leadville Mining & Milling Corp *ADDRESS* P. O. Box 552 - Leadville, CO 80461

No change shall be made in the use of this building without prior notice and certificate form the Chief Building Inspector.

Chief Building Inspector Don Lyppi

By: _____, *Deputy*

CERTIFICATE OF OCCUPANCY

Issued Without Fee

LAKE COUNTY
Lake County Courthouse
Leadville, Colorado 80461

Permit Number 936

Date November 9, 1990

This certificate verifies that the building constructed under above permit number and on property described below, does comply with the Lake County Building Code.

CONTRACTOR _____

PROPERTY ADDRESS ~~13867~~ 13815 U. S. Highway 24

LEGAL DESCRIPTION:
Sec. 28, TS.9S., R.80W.

FOR THE FOLLOWING PURPOSE: Flotation & Gravity Mill

OWNER Leadville Mining & Milling Corp *ADDRESS* P. O. Box 552 - Leadville, CO 80461

No change shall be made in the use of this building without prior notice and certificate form the Chief Building Inspector.

Chief Building Inspector Don Deppi

By: _____, *Deputy*

APPENDIX 13-6

CO DEPT. OF PUBLIC HEALTH & ENVIRONMENT - AIR POLLUTION EMISSION NOTICE (APEN)

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
AIR POLLUTION CONTROL DIVISION
TELEPHONE: (303) 692-3150

CONSTRUCTION PERMIT

PERMIT NO: **11LK1369F**

INITIAL APPROVAL

DATE ISSUED: SEP 07 2011

ISSUED TO: **Union Milling Company, LLC**

THE SOURCE TO WHICH THIS PERMIT APPLIES IS DESCRIBED AND LOCATED AS FOLLOWS:

Truck haul, stockpiling and yard operations for a Gold, Silver, Lead, Zinc and Copper mill operated by Union Milling Company, LLC , located at 13815 Highway 24 (2 Miles Southwest of Leadville), Lake County, Colorado.

THE SPECIFIC EQUIPMENT OR ACTIVITY SUBJECT TO THIS PERMIT INCLUDES THE FOLLOWING:

AIRS ID 002: Run of Mine (ROM) ore haulage, stockpiling transfer, concentrate haulage.

AIRS ID 003: Surface disturbance associated with tailings storage, mill operations, topsoil and overburden stockpiles, ROM Stockpiles and access/haul roads.

THIS PERMIT IS GRANTED SUBJECT TO ALL RULES AND REGULATIONS OF THE COLORADO AIR QUALITY CONTROL COMMISSION AND THE COLORADO AIR POLLUTION PREVENTION AND CONTROL ACT C.R.S. (25-7-101 et seq), TO THOSE GENERAL TERMS AND CONDITIONS INCLUDED IN THIS DOCUMENT AND THE FOLLOWING SPECIFIC TERMS AND CONDITIONS:

REQUIREMENTS TO SELF-CERTIFY FOR FINAL APPROVAL

1. **YOU MUST notify the Air Pollution Control Division (the Division) no later than fifteen days after commencement of the permitted operation or activity by submitting a Notice of Startup form to the Division**. The Notice of Startup form may be downloaded online at www.cdphe.state.co.us/ap/downloadforms.html.Failure to notify the Division of startup of the permitted source is a violation of Air Quality Control Commission (AQCC) Regulation No. 3, Part B, Section III.G.1 and can result in the revocation of the permit.

2. Within one hundred and eighty days (180) after commencement of operation, compliance with the conditions contained on this permit shall be demonstrated to the Division. It is the permittee's responsibility to self certify compliance with the conditions. Failure to demonstrate compliance within 180 days may result in revocation of the permit or enforcement action by the Division. Information on how to certify compliance was mailed with the permit or can be obtained from the Division. (Reference: Regulation No. 3, Part B, II.G.2)

3. This permit shall expire if the owner or operator of the source for which this permit was issued: (i) does not commence construction/modification or operation of this source within 18 months after either, the date of issuance of this construction permit or the date on which such construction or activity was scheduled to commence as set forth in the permit application associated with this permit; (ii) discontinues construction for a period of eighteen months or more; (iii) does not complete construction within a reasonable time of the estimated completion date. The Division may grant extensions of the deadline per Regulation No. 3, Part B, III.F.4.b. (Reference: Regulation No. 3, Part B, III.F.4.)

4. Within one hundred and eighty days (180) after commencement of operation, the permit number and/or AIRS ID number shall be shall be identified on a sign or placard located at an observable location. (Reference: Regulation No. 3, Part B, III.E.) (State only enforceable)

Emission Limitations and Records

5. Emissions of air pollutants shall not exceed the following limitations (as calculated using the emission factors included in the Notes to Permit Holder section of this permit). Annual records of the actual emission rates shall be maintained by the applicant and made available to the Division for inspection upon request. (Reference: Regulation No. 3, Part B, Section II.A.4)

Fugitive Particulate Matter:	**14.1** tons per year
Fugitive Particulate Matter < 10 µm (PM10):	**1.6** tons per year.
Fugitive Particulate Matter < 2.5 µm (PM2.5):	**0.2** tons per year.

Note: Compliance with these fugitive emission limits shall be demonstrated by not exceeding the production limits and by operating the controls described in the application to obtain the estimated control efficiencies.

PROCESS LIMITATIONS AND RECORDS

6. This source shall be limited to a maximum waste rock production rate as listed below and all other activities, operational rates and numbers of equipment as stated in the application. Annual records of the actual production rates shall be maintained by the applicant and made available to the Division for inspection upon request. (Reference: Regulation No. 3, Part B, Section II.A.4.)

Waste rock production shall not exceed **56,000** tons per year.

STATE AND FEDERAL REGULATORY REQUIREMENTS

7. Visible emissions shall not exceed twenty percent (20%) opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity for more than six minutes in any sixty consecutive minutes. (Reference: Regulation No. 1, Section II.A.1. & 4.)

8. This source is subject to the New Source Performance Standards requirements of Regulation No. 6, Part A, Subpart LL - Standards of Performance for Metallic Mineral Processing Plants including, but not limited to, the following:

§ 60.380 Applicability and designation of affected facility.

§ 60.382 Standard for particulate matter

a. No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter and exhibit greater than 7 percent opacity.In addition, the following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, apply.

b. No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10 percent opacity.

§ 60.383 Reconstruction

§ 60.385 Recordkeeping and reporting requirements

§ 60.386 Test methods and procedures

In addition, the following requirements of Regulation No. 6, Part A, Subpart A, General Provisions, apply.

a. No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. (§ 60.12)

b. Written notification of construction and initial startup dates shall be submitted to the Division as required under § 60.7.

c. Records of startups, shutdowns, and malfunctions shall be maintained, as required under § 60.7.

d. Compliance with opacity standards shall be demonstrated according to § 60.11.

9. At all times, including periods of start-up, shutdown, and malfunction, the facility and control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether or not acceptable operating and maintenance procedures are being used will be based on information available to the Division, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (Reference: Regulation 6, Part A. General Provisions from 40CFR60.11)

ADDITIONAL REQUIREMENTS

10. The particulate emission control measures listed on the attached page (as approved by the Division) shall be applied to the particulate emission producing sources as required by Regulation No. 1, Section III.D.1.b.

11. A revised Air Pollutant Emission Notice (APEN) shall be filed: (Reference: Regulation No. 3, Part A, II.C)

    a. Annually whenever a significant increase in emissions occurs as follows:

       For any criteria pollutant:

       For sources emitting **less than 100 tons per year of a criteria pollutant**, a change in annual actual emissions of five (5) tons per year or more, above the level reported on the last APEN; or

       For any non-criteria reportable pollutant:

       If the emissions increase by 50% or five (5) tons per year, whichever is less, above the level reported on the last APEN submitted to the Division.

    b. Whenever there is a change in the owner or operator of any facility, process, or activity; or

    c. Whenever new control equipment is installed, or whenever a different type of control equipment replaces an existing type of control equipment; or

    d. Whenever a permit limitation must be modified; or

    e. No later than 30 days before the existing APEN expires.

GENERAL TERMS AND CONDITIONS:

12. This permit and any attachments must be retained and made available for inspection upon request. The permit may be reissued to a new owner by the Division as provided in Regulation No. 3, Part B, Section II.B upon a request for transfer of ownership and the submittal of a revised APEN and the required fee.

13. If this permit specifically states that final approval has been granted, then the remainder of this condition is not applicable. Otherwise, the issuance of this construction permit does not provide "final" authority for this activity or operation of this source. Final approval of the permit must be secured from the Division in writing in accordance with the provisions of 25-7-114.5(12)(a) C.R.S. and Regulation No. 3, Part B, Section III.G. Final approval cannot be granted until the operation or activity commences and has been verified by the Division as conforming in all respects with the conditions of the permit. Once self-certification of all points has been reviewed and approved by the Division, it will provide written documentation of such final approval. **Details for obtaining final approval to operate are located in the Requirements to Self-Certify for Final Approval section of this permit.**

14. This permit is issued in reliance upon the accuracy and completeness of information supplied by the applicant and is conditioned upon conduct of the activity, or construction, installation and operation of the source, in accordance with this information and with representations made by the applicant or applicant's agents. It is valid only for the equipment and operations or activity specifically identified on the permit.

Union Milling Company, LLC
Permit No. 11LK1369F
Initial Approval

15. Unless specifically stated otherwise, the general and specific conditions contained in this permit have been determined by the Division to be necessary to assure compliance with the provisions of Section 25-7-114.5(7)(a), C.R.S.

16. Each and every condition of this permit is a material part hereof and is not severable. Any challenge to or appeal of a condition hereof shall constitute a rejection of the entire permit and upon such occurrence, this permit shall be deemed denied *ab initio*. This permit may be revoked at any time prior to self-certification and final authorization by the Division on grounds set forth in the Colorado Air Quality Prevention and Control Act and regulations of the AQCC including failure to meet any express term or condition of the permit. If the Division denies a permit, conditions imposed upon a permit are contested by the applicant, or if the Division revokes a permit, the applicant or owner or operator of a source may request a hearing before the AQCC for review of the Division's action.

17. Section 25-7-114.7(2)(a), C.R.S. requires that all sources required to file an Air Pollution Emission Notice (APEN) must **pay an annual fee** to cover the costs of inspections and administration. If a source or activity is to be discontinued, the owner must notify the Division in writing requesting a cancellation of the permit. Upon notification, annual fee billing will terminate.

18. Violation of the terms of a permit or of the provisions of the Colorado Air Pollution Prevention and Control Act or the regulations of the AQCC may result in administrative, civil and/or criminal enforcement actions under Sections 25-7-115 (enforcement), -121 (injunctions), -122 (civil penalties), -122.1 (criminal penalties), C.R.S.

By: _____ for
Charles N. Pray, P.E.-P.L.S.
Permit Engineer

By: _____
R K Hancock III, P.E.
Construction Permits Unit Supervisor

Permit History

Issuance	Date	Description
Initial Approval	This Issuance	Issued to Union Milling Company, LLC.

Union Milling Company, LLC
Permit No. 11LK1369F
Initial Approval

Notes to permit holder:

1. The production or raw material processing limits and emission limits contained in this permit are based on the production/processing rates requested in the permit application. These limits may be revised upon request of the permittee providing there is no exceedance of any specific emission control regulation or any ambient air quality standard. A revised air pollution emission notice (APEN) and application form must be submitted with a request for a permit revision.

2. This source is subject to the Common Provisions Regulation Part II, Subpart E, Affirmative Defense Provision for Excess Emissions During Malfunctions. The permittee shall notify the Division of any malfunction condition which causes a violation of any emission limit or limits stated in this permit as soon as possible, but no later than noon of the next working day, followed by written notice to the Division addressing all of the criteria set forth in Part II.E.1. of the Common Provisions Regulation. See: http://www.cdphe.state.co.us/regulations/airregs/5CCR1001-2.pdf.

3. This source is classified as a: Minor source

4. In accordance with C.R.S. 25-7-114.1, the Air Pollutant Emission Notices (APENs) associated with this permit are valid for a term of five years. As of the issuance of this permit, the five-year term for these APENs expires per the table below. A revised APEN shall be submitted no later than 30 days before the five-year term expires.

AIRS Point	Date of Expiration
002	February 16, 2016
AIRS Point	**Date of Expiration**
003	February 16, 2016

5. The emission levels contained in this permit are based on AP-42 emission factors and equations:

Emissions from vehicle travel on site (AP-42, Ch. 13.2.2, Equation 1.a:

Total Vehicle Miles Travelled/Day (VMT/D) = 4.8.

PM Emissions per VMT/D = 28 lbs

PM10 Emissions per VMT/ D = 7.4 lbs

PM2.5 Emissions per VMT/D = 1.1 lbs

Emissions from Stockpiles and Front End Loader (FEL) operations on site are based on AP-42, Ch. 11.9, Western Surface Mines:

Stockpile wind erosion (56,000 tpy):

PM Emissions per day = 1.8 lbs

PM10 Emissions per day = 0.9 lbs

PM2.5 Emissions per day = Not determined

FEL operations:

PM Emissions per ton = 0.07 lbs

PM10 Emissions per ton = 0.1 lbs

PM2.5 Emissions per VMT/D = 0.001 lbs

NOTE: Emissions from tailings are fully wet.

Union Milling Company, LLC
Permit No. 11LK1369F
Initial Approval

PARTICULATE EMISSIONS CONTROL PLAN FOR MINING AND PROCESSING ACTIVITIES

THE FOLLOWING PARTICULATE EMISSIONS CONTROL MEASURES SHALL BE USED FOR COMPLIANCE PURPOSES ON THE ACTIVITIES COVERED BY THIS PERMIT, AS REQUIRED BY THE AIR QUALITY CONTROL COMMISSION REGULATION NO.1, SECTION III.D.1.b. THIS SOURCE IS SUBJECT TO THE FOLLOWING EMISSION GUIDELINES:

a. **Mining and Processing Activities** - Visible emissions not to exceed 20%, no off-property transport of visible emissions.

b. **Haul Roads** - No off-property transport of visible emissions shall apply to on-site haul roads, the nuisance guidelines shall apply to off-site haul roads.

c. **Haul Trucks** - There shall be no off-property transport of visible emissions from haul trucks when operating on the property of the owner or operator. There shall be no off-vehicle transport of visible emissions from the material in the haul trucks when operating off of the property of the owner or operator.

Control Measures

1. Topsoil and overburden stockpiles shall be compacted. Topsoil and overburden stockpiles shall be revegetated within one (1) year of buildout.

2. Emissions from the disturbed area, including haulroads, shall be controlled by watering at all times unless natural moisture is sufficient to control emissions. Gravel shall be placed on disturbed areas and haul roads.

APPENDIX 13-7

CO DEPT. OF PUBLIC HEALTH & ENVIRONMENT - STORMWATER PERMIT APPLICATION

COLORADO
Department of Public Health & Environment
4300 Cherry Creek Drive S
Denver, CO 80246-1530
P 303-692-2000
www.colorado.gov/cdphe/wqcd

Dedicated to protecting and improving the health and environment of the people of Colorado

For Agency Use Only
Permit Number Assigned
CO-_____
Date Received

1/23/23

APPLICATION FOR DISCHARGES ASSOCIATED WITH HARDROCK MINING/ MILLING, AND COAL MINING/PREPARATION ACTIVITIES

Please print or type. Original signatures are required. This application must be considered complete by the Division before it will initiate permit processing. The Division will notify the applicant if additional information is needed to complete the application. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be mailed or delivered to:

Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-P-B2
Denver, Colorado 80246-1530

TEMPORARY COVID19 Submission - Digitally signed documents may be emailed to

cdphe.wqrecordscenter@state.co.us.

Do not follow up with a mailed-in hard copy. The directions for electronic signatures can be found at this FAQ at question 41.

Reason for Application: ☒ NEW CERT
☐ RENEW CERT EXISTING PERMIT or CERT # 411153

PERMIT INFORMATION
Applicant is: ☒ Property Owner ☐ Contractor/Operator

IS THIS THE CORRECT APPLICATION FOR YOUR FACILITY?
This application is for use by all hardrock mining and/or milling and coal mining and/or preparation facilities with **process water, mine dewatering, and/or stormwater** discharges.

1. CONTACT INFORMATION

PERMITTEE (If more than one please add additional pages)

ORGANIZATION FORMAL NAME: CJK Milling Company,LLC

a. **PERMITTEE** the person **authorized to sign and certify** the permit application. This person receives all permit correspondences and is **legally responsible** for ensuring compliance with the permit.

Responsible Position (Title): Owner

Currently Held By (Person): Gary Knippa

Telephone No: 720-412-8838

email address gknippa@msn.com

Organization: CJK Milling Company, LLC

Mailing Address: 33084 Bergen Mtn Road

City: Evergreen State: CO Zip: 80439

This form must be signed by the Permittee to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

b. DMR COGNIZANT OFFICIAL (i.e. authorized agent) the person or position authorized to sign and certify reports required by permits including Discharge Monitoring Reports [DMR's], Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (ie. DMR's) to this person. If more than one, please add additional pages.

☐ Same As 1) Permittee

Responsible Position (Title): General Manger

Currently Held By (Person): Steve Craig

Telephone No: 303-877-9701

email address scraig@unionmilling.com

Organization: Union Milling Contractors

Mailing Address: P.O. 620490

City: Littleton State: CO Zip: 80162

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:
(i) The authorization is made in writing by the permittee
(ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a named position)
(iii) Written request is submitted to the Division

c. SITE CONTACT local contact for questions relating to the facility & discharge authorized by this permit for the facility.

☐ Same As 1) Permittee

Responsible Position (Title): General Manager

Currently Held By (Person): Steve Craig

Telephone No: 303.877-9701

email address scraig@unionmilling.com

Organization: Union Milling Contractors

Mailing Address: P.O. 620490

City: Littleton State: CO Zip: 80162

d. OPERATOR in Responsible Charge ☐ Same As 1) Permittee

Responsible Position (Title): Manager

Currently Held By (Person): Steve Craig

Telephone No: 303-877-9711

email address scraig@unionmilling.com

Organization: Union Milling Contractors

Mailing Address: P.O. 620490

City: Littleton State: CO Zip: 80162

Certification Type_____ Certification Number_____

e. BILLING CONTACT ☐ **Same As 1) Permittee**

Responsible Position (Title): Union Milling Contrators Adm:Assistant

Currently Held By (Person): Stephanie Veith

Telephone No: 720.413-5943

email address sveith@unionmilling.com

Organization: Union Milling Contractors

Mailing Address: P.O. 620490

City: Littleton State: CO Zip: 80162

f. OTHER CONTACT TYPES (check below) Add pages if necessary:

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

- ☐ **Pretreatment Coordinator**
- ☐ **Environmental Contact**
- ☐ **Biosolids Responsible Party**
- ☐ **Property Owner**
- ☐ **Inspection Facility Contact**
- ☐ **Consultant**
- ☐ **Compliance Contact**
- ☒ **Stormwater Authorized Representative**
- ☐ **Other** _____

2. PERMITTED FACILITY INFORMATION

Name of Plan, Project or Leadville Mill

Development: Location of mill site:

Street Address (or cross streets): property boundary is approximately 550ft north of US Highway 24, and Highway 24 approximately 300ft north of California Gulch.

City (if unincorporated, so indicate): Leadville County: Lake

State and Zip Code: Colorado 80461

Latitude and Longitude (approximate center of site to nearest 15 seconds using one of following formats):

Latitude: 39.23144 degrees (to 5 decimal places) Longitude: -106.33172 degrees (to 5 decimal places) (e.g., 39.70312°, 104.93334')

3. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THIS FACILITY (Include up to 4 in order of importance.

1. 1040 **2.** _____ **3.** _____ **4.** _____

4. DESCRIBE THE INDUSTRIAL ACTIVITIES WHICH TAKE PLACE ON THIS SITE

Describe the primary industrial activities which take place on site. Include the type of facility plus a brief description of the nature of the business and the industrial processes used. Include a description of the mining, milling, coal preparation, etc. processes where applicable. A process flow sheet would be acceptable.

See Table 1
CJK Milling
Process Flow Sheet

5. IS THIS FOR AN EXPLORATORY, ACTIVE MINING/MILLING, INACTIVE MINING, OR IS THE SITE IN TEMPORARY CESSATION?

Active Milling

If Exploratory - please submit any known water quality/quantity data relative to the discharge and the receiving stream which reflects the conditions prior to the present activity, the length of time the activity is expected to be under exploration, and describe what activities will take place during exploration which could have an impact on the quality of the discharge.

Not Applicable
CJK Milling Company's Leadville Mill will be processing gold and silver ore.

6. Production: List the principal product(s) produced and maximum production rate.

Gold and silver mine ores will be processed at an estimated daily rate of 400 tons.

7. Is this a seasonal operation? [X] **No** [ ] **Yes** **If yes, please indicate the months of operation:**

[ ] JAN [ ] FEB [ ] MAR [ ] APR [ ] MAY [ ] JUNE [ ] JULY [ ] AUG [ ] SEPT [ ] OCT [ ] NOV [ ] DEC

8. Intermittent discharges: Except for storm runoff, are any of the discharges intermittent or seasonal? [ ] No [X] Yes
Describe the frequency, duration and flow rate of each discharge occurrence.

Since 2010 no flow rates from the Mill Site ephemeral drainage have been observed.

Activity duration: When did the mining/milling operation commence? Mid-2023

What is the estimated life of the activity from which the discharge(s) identified in item 20 originate? 20 yrs

9. Location map: 7.5 minute USGS quad sheet, or a map of comparable scale. A north arrow shall be shown.

See Stormwater Management Plan
Figure 1

10. Site Map:

stream location, numbered discharge points, sampling and flow monitoring points, waste rock piles, spent ore piles, tailing dams/dikes, topsoil piles, location of french drains, mine drainage flow paths, domestic wastewater plants, power plants, truck washing areas, explosive storage areas, parking lots, vehicle maintenance areas, chemical storage areas, crusher areas and land application areas. The outfalls shall be labeled to correspond with the numbers listed in items 20 and 21.

See Appendix 1- Figure 3 and Figure 4

11. Water Balance:

See Table 1

12. OTHER ENVIRONMENTAL PERMITS

Does this facility currently have any environmental permits, or is it subject to regulation, under either of the following programs?

Permit Name	Yes	No	Applied For, Date	Permit No.
a.) Colorado Division of Reclamation, Mining and Safety Permit Anniversary Date_____	X		June 8,2008	M-1990-57
b.) Underground Injection Control		X		
c.) Dredge or fill permit under Section 404 of the Clean Water Act (CWA) (Army Corps of Engineers)		X		
d.) Resource Conservation and Recovery Act (RCRA)		X		
e.) CDPS Stormwater **(If YES, please include copy of site's Stormwater Management Plan)**	X		**See attached** Storm Management Plan and Appendix 1 and 2	
f.) Colorado State Air Pollution Emission		X		
g.) Other:			Lake County Use Permit	TO BE SUBMITTED

13. Site-specific conditions:

a) Is this operation located within one mile of a landfill, or any mine or mill tailings? ☐ NO ☒ YES NO ACTIVE MINES

b) Does the dewatering area have or possibly have groundwater contamination, such as plumes from leaking underground storage tanks, etc.? ☒ NO ☐ YES

If YES for **any** of these, please show location of the landfill, tailings or possible groundwater contamination on the location map in item 9 or in the site map sketch in item 10. Please explain the location, extent of contamination, and possible effect on the discharges from this facility.

Contaminated ground water from Californian Gulch Superfund site up gradient from the CJK Mill has affected Mill's shallow groundwater quality (See CDRMS Mill Permit)

14. Bath House/Dry and Sanitary Waste: Is there a bath house/dry at this facility? ☒ NO ☐ YES

Are there sanitary wastewater facilities or sanitary treatment systems at this facility? ☐ NO ☒ YES

If YES, what is the disposition of any wastewater generated?

Connected to Leadville Sanitary District Sewer Distribution System See Appendix 1 Figure 3

15. Chemical addition/ treatment (NOT APPLICABLE)

If chemical additives, settling agents, flocculants, or other materials are proposed for use in or to treat wastewater/stormwater prior to discharge, please submit a **Chemical Evaluation Form** with this application.

a. Is chemical addition/treatment proposed for this facility? (Mill ore will be processed within the mill building

□ Yes x No

b. Did applicant submit a **Chemical Approval Form** with this application?

□ Yes X No - chemical addition/treatment not proposed

16. Used or Manufactured Toxics: The applicant must provide a list of any toxic products which the applicant currently uses or manufactures as an intermediate or final product or byproduct.

See Table 2

17. Flow Measurement: What method of flow measurement will be used for each discharge point (e.g., v notch weir, pump capacity, parshall flume, etc.)? Designate whether currently installed or proposed. Identify the minimum and maximum flow measurement capability. List the last date calibrated.

No water discharges have been observed. If flows are observed instantaneous flow measurements will be taken using a V notch weir. See Appendix 1 Figure 3.

18. Improvements: Please provide a description of any abatement requirement, abatement project and projected final compliance dates if subject to any present requirements or compliance schedules for construction, upgrading or operation of waste treatment equipment. List any changes from previous permit.

No water discharges from the mine permit area have been observed.

19. Land Application: Is or will land application of any wastewater be practiced? ☒ NO ☐ YES

If Yes, please provide a copy of the material submitted to the **Colorado DRMS** on the discharge and include a copy of the CDRMS approval where applicable. Briefly describe the process

Not applicable.

Process water will be recycled and used during the milling process.

20. Flows, Treatment and Map: Please provide a detailed narrative description for each type of process, operation, storage or area which contributes wastewater to the effluent for each outfall, **including all mine related wastewater, cooling waters, domestic wastewater and stormwater runoff**; the average discharge flow for each outfall (including stormwater outfalls) and a description of the treatment the wastewater receives. The average flow of point sources composed of stormwater may be estimated.

Examples of the **process, operation, storage or production areas** to document in this section include, but are not limited to:

- all small area exemptions (SAEs) and associated pollutant sources;
- mine vent bore hole pads and associated roads;
- facilities that support the mining operation, such as ventilation facilities; dewatering facilities, laydown areas, material storage areas, subsoil storage; material handling areas;
- coal preparation plant and coal preparation plant associated areas, including train load out areas and associated access roads;
- brushing/grubbing areas; topsoil stockpiles; regrading areas; reclamation areas;
- ore and ore conveyances; mine waste, waste rock; tailings, overburden, topsoil, and roads constructed of these materials;
- all milling/processing areas;
- mine adits or mining areas that currently do, or potentially could, discharge mine water;

- roads, (haul roads/access roads etc) with associated total disturbed area, as applicable;
- rock berms
- sediment traps
- ditches
- ore storage bunkers
- perimeter berms

See Attached
Storm water Management Plan
Appendix 1 Drainage Plan
and
Appendix 2 Engineering
Control Methods

Use additional sheets if necessary. Additional information on the treatment facilities may be requested during application review.

OUTFALL NUMBER	WASTEWATER SOURCE	TREATMENT USED	AVG FLOW, MGD*	DESIGN FLOW, MGD*	DAILY MAX FLOW, MGD*
001	Up gradient Ephemeral Sources	Sediment Trap	TBD	TBD	TBD

*MGD - Million gallons/day

(See Figure 2)

21. For each outfall provide the latitude, longitude and receiving water and indicate the method used to derive this information. Use additional sheets if necessary. Please refer to instructions.

For each outfall to surface water or discharge to ground water, provide latitude/longitude and receiving water

OUTFALL	LATITUDE	LONGITUDE	RECEIVING WATERS* * Give formation name and distance to surface water for discharges to **ground water**
001	39 13'26.03N	106 19'59.29W	Discharges to groundwater is unknown. Surface water discharge to an ephemeral surface water is drained into California Gulch.
FACILITY FRONT DOOR	N39°13'44.41",	W106°19'51.14"	

The following choices for the data acquisition are listed in order of preference. Please check the box that applies to the method used for collection of the locational data of your **Facility and Discharge points**.

Global Positioning System (GPS) unit accurate to within 30 yards.

Global Positioning System (GPS) unit accurate to greater than 30 yards. Google Earth Pro

Engineering drawing/plan with latitude and longitude reference. Other. Explain

Global Positioning System (GPS) unit used where the accuracy unknown. (Google Maps)
Point on original USGS topographic map. -Leadville South 7.5 minute quadrangle map

22. Are the receiving waters, indicated in item 21, a ditch or storm sewer? [X] NO [ ] YES

If YES, submit documentation that the owner of the ditch or storm sewer allows this discharge. No permit will be processed unless documentation of approval is received.

23. Do you have a certified operator? [X] NO [ ] YES
If yes, please list name(s), certification number(s) and certification level(s).

24. Discharge Quality: Analytical data for the following parameters, unless waived by the Division, shall be submitted from at least one sampling of each discharge point as well as state waters upstream of each discharge. Upstream data should be from non-runoff periods, to the extent possible. If more than one outfall is to a common body of water, only one analysis of the receiving water upstream of the upper-most outfall will be required. If the receiving stream is dry during portions of the year, so indicate. In the case of sedimentation ponds for stormwater runoff, one outfall can be sampled if it can reasonably be assumed to be representative of all sedimentation pond outfalls. For new mines, please submit a minimum of one years data for those parameters listed below. Such data must have been obtained on at least a quarterly basis and must be reflective of the water quality prior to any mining activity.

Intermittent headwater channels drain the Mill site. No discharges from the Mill site have been observed. The Mill is not active. No surface water samples have been taken. All adjacent drainages are ephemeral.

PARAMETER	DETECTION LEVEL	PARAMETER	DETECTION LEVEL
Total Dissolved Solids, mg/R	10	Total Recoverable Manganese, mg/R	0.05
Flow, MGD	NA	Dissolved Manganese, mg/R	0.05
pH, s.u.	NA	Total Mercury, mg/R	0.00025
Oil and Grease, mg/R	5	Total Recoverable Nickel, mg/R	0.05
Dissolved Oxygen, mg/R	NA	Potentially Dissolved Nickel, mg/R	0.05
Alkalinity, mg/R	10	Total Recoverable Silver, mg/R	0.0002
Total Suspended Solids, mg/R	10	Potentially Dissolved Silver, mg/R	0.0002
Hardness, mg/R as $CaCO_3$	10	Total Recoverable Uranium, mg/R	0.03
Total Ammonia, mg/R	0.05	Total Recoverable Zinc, mg/R	0.05
Temperature, ^{B}C Winter	NA	Potentially Dissolved Zinc, mg/R	0.05
Temperature, ^{B}C Summer	NA	Total Residual Chlorine, mg/R	0.05
Biochemical Oxygen Demand, mg/R	1	Fecal Coliform, #/100 ml	NA
Chemical Oxygen Demand, mg/R	30	Nitrate, mg/R as N	0.1
Dissolved Aluminum, mg/R	0.1	Nitrite, mg/R as N	0.002
Total Arsenic, mg/R	0.05	Sulfide mg/R as H_2S	0.1
Total Recoverable Cadmium, mg/R	0.0004	Boron, mg/R	0.05
Hexavalent Chromium, mg/R	0.025	Chloride, mg/R	5
Trivalent Chromium, mg/R	0.05	Sulfate, mg/R	5
Total Chromium, mg/R	0.005	Total Cyanide, mg/R	0.01
Total Recoverable Copper, mg/R	0.005	Total Recoverable Selenium, mg/R	0.002
Potentially Dissolved Copper, mg/R	0.005	Total Cobalt, mg/R	0.006
Total Recoverable Iron, mg/R	0.3	Gross Alpha, piC/R	0.3
Dissolved Iron, mg/R	0.3	Total Radium 226 + 228, pCi/R	8
Total Recoverable Lead, mg/R	0.005	Total Fluoride, mg/R	0.1
Potentially Dissolved Lead, mg/R	0.005	Weak Acid Dissociable Cyanide, mg/R	0.01
Total Phenols, mg/R	0.100	Total Phosphorus, mg/R as P	0.05
Total Organic Nitrogen, mg/R as N	0.05		

25. Dioxin Testing: Each applicant must report qualitative data, generated using a screening procedure not calibrated with analytical standards, for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) if it:

(a) Uses or manufactures 2,4,5-trichlorophenoxy acetic acid (2,4,5,-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); O,O-dimethyl O-(2,4,5-trichlorphenyl) phosphorothioate (Ronnel); 2,4,5- trichlorophenol (TCP); or hexachlorophene (HCP); or

(b) Knows or has reason to believe that TCDD is or may be present in an effluent.

26. Whole Effluent Toxicity Testing: WET testing shall be conducted for each outfall which is **not** solely made up of stormwater or domestic wastewater, unless waived by the Division, on 100% effluent using both Ceriodaphnia dubia and fathead minnows. This requirement is waived where routine testing is currently required under an existing CDPS permit. The test shall be an acute test unless the ratio of stream low flow to effluent design flow is less than 10:1, respectively, and the receiving stream has a Class 1 Aquatic Life Use or Class 2 Aquatic Life Use with all the appropriate aquatic life numeric standards. In the latter case, a chronic test is required. The Division reserves the right to request additional testing as part of the application review process. If so required, the permit application will not be considered complete until the additional testing is submitted. In addition, all applicants must identify any biological toxicity tests which have been performed within the last 3 years on any of the discharges

or the receiving water in relation to a discharge from this facility. Attach WET test results to this application. If so required, the permit will not be processed until the additional information is submitted.

WET testing procedures are described in the *"Guidelines for Conducting Whole Effluent Toxicity Tests"* which can be obtained from the Division.

Not Applicable

27. Priority Pollutant Scan: The results of a priority pollutant scan, unless waived by the Division, for the volatile and acid fractions as shown in Appendix A must be submitted of each discharge.

28. Additional Monitoring: All applicants must review the parameters listed in Appendix A and Appendix B to this application, and indicate whether it knows or has reason to believe that these pollutants are present. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any quantitative data for the pollutant.

A representative surface water sample has not been obtained. Site groundwater sampling from two monitoring wells commenced in 2010. Surface flows have not been observe on site.

29. Please submit a copy all water quality monitoring data of outfalls or receiving streams for which data has been gathered over the last five years for the mining/milling site and which is required by the Division of Minerals and Geology. If not already submitted to the Division, the plan which details the monitoring frequency, type, locations and method of analysis must also be submitted.

30. Pollution Prevention Plans: Please describe any pollution prevention or best management plans currently in place which could result in the improvement of water quality. These could include solvent recycling programs, material containment procedures, education, etc.

See Attached
Storm Water Management Plan

31. Historic Drainages: Does historic drainage exist at the site, which is not covered under a CDPS permit? Yes ? **No** If so, please provide a map showing the location of the discharges and copies of **all** analytical information on the discharges. Please sample the discharges for the parameters listed in item 26 and submit those results. This requirement may be waived by the Division if suitable data on the discharges historic quality and quantity exists.

Not Applicable - No site discharges have been observed.

REQUIRED SIGNATURES

Signature of Applicant: The applicant must be either the owner and/or operator of the site. The application must be signed by the applicant to be considered complete. In all cases, it shall be signed as follows: (Regulation 61.4 (1ei)

a) In the case of corporations, by the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates
b) In the case of a partnership, by a general partner.
c) In the case of a sole proprietorship, by the proprietor.
d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, (a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates).

Signature of Permit Legal Contact

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Gary Knippa — 1/30/23

Signature of Legally Responsible Person (submission must include original signature) — Date Signed

Gary Knippa — Owner

Name (printed — Title

01/30/2023

Signature of Operator (submission must include original signature) — Date Signed

Steve Craig -Union Milling Contractors — Manager

Name (printed — Title

DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE PERMIT IS ISSUED.

Appendix A - Priority Pollutants

Organic Toxic Pollutants in Each of Three Fractions in Analysis by Gas Chromatography/Mass Spectroscopy(GC/MS).

Volatiles

Acrolein
Acrylonitrile
Benzene
Bromoform
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Dichlorobromomethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropylene
Ethylbenzene
Methyl Bromide
Methyl Chloride
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Toluene
1,2-Trans-dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Vinyl Chloride

Base/Neutral

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
3,4-Benzofluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl) ether
Bis(2-chloroisopropyl) ether
Bis(2-ethylhexyl)phthalate
4-Bromophenyl phenyl ether
Butylbenzyl phthalate
2-Chloronaphthalene
4-Chlorophenyl phenyl ether
Chrysene
Dibenzo (a,h) anthracene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3-Dichlorobenzidine
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
1,2-Diphenylhydrazine (as azobenzene)
Fluorene
Fluoranthene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorcyclopentadiene
Hexachloroethane
Indeno(1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodimethylamine
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Phenanthrene
Pyrene
1,2,4-Trichlorobenzene)

Acid

2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
4,6-Dinitro-o-cresol
2,4-Dinitrophenol
2-Nitrophenol
4-Nitrophenol
P-chloro-m-cresol
Pentachlorophenol
Phenol
2,4,6-Trichlorophenol

Pesticides

Aldrin
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC
Chlordane
4,4'-DDT
4,4'-DDE
4,4'-DDD
Dieldrin
PCB-1260
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Heptachlor
Heptachlor Epoxide
PCB-1242
PCB-1254
PCB-1221
PCB-1232
PCB-1248
PCB-1016
Alpha-Endosulfan
Beta-Endosulfan
Toxaphene

Metals, Cyanide, and Total Phenols

Total Recoverable Antimony, mg/P
Total Recoverable Beryllium, mg/P
Total Recoverable Thallium, mg/P
Bromide, mg/P
Color
Sulfite, mg/P
Surfactants,
Total Magnesium, mg/P
Total Molybdenum, mg/P
Total Tin, mg/P
Total Titanium, mg/P

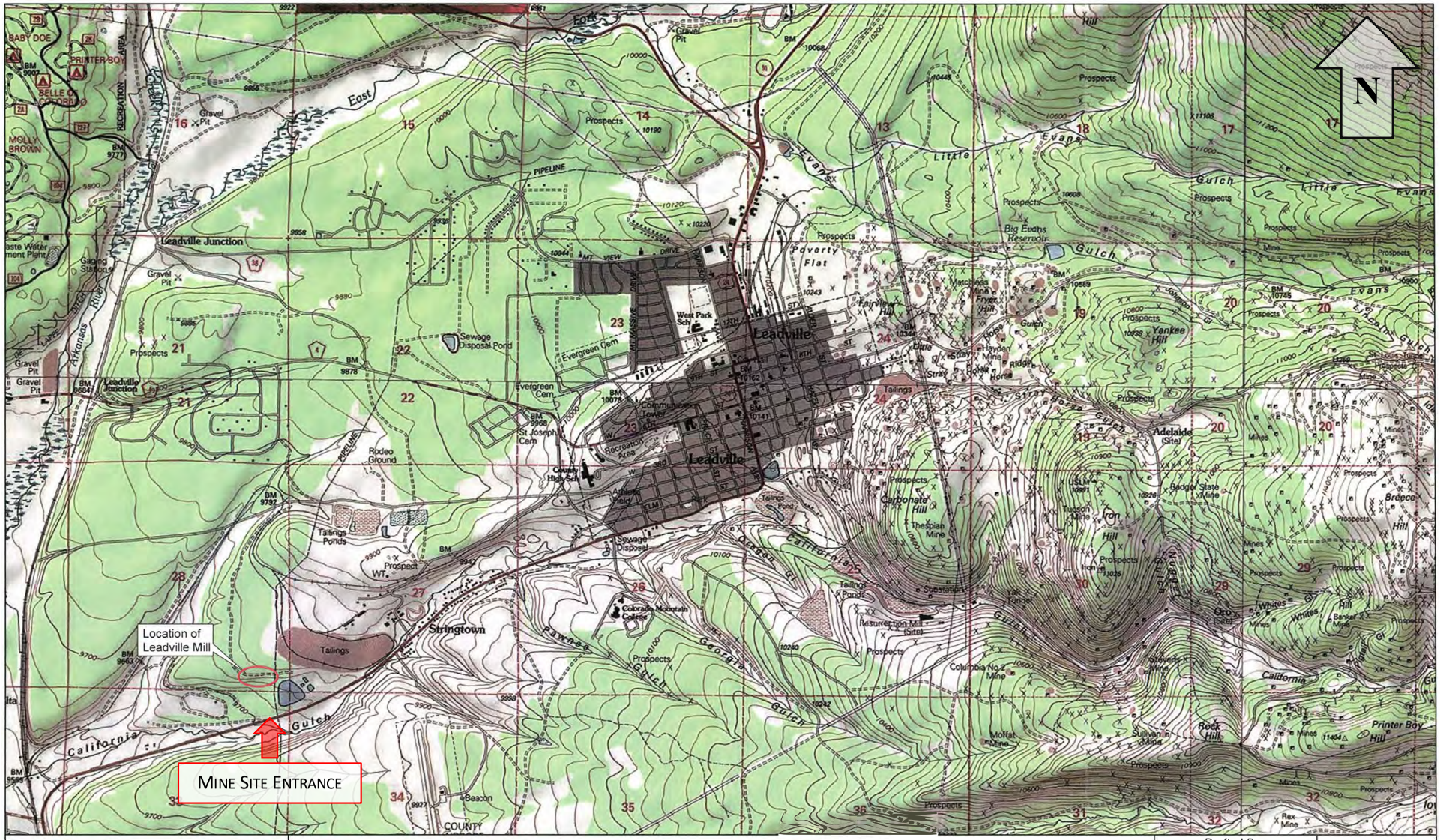
Appendix B - Toxic Pollutants and Hazardous Substances

Toxic Pollutants

Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorphyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethly amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Naphthenic acid
Nitrotoluene
Parathion
Phenolsulfanate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium



LEADVILLE MILL GENERAL LOCATION

LEADVILLE MILL
CJK MILLING COMPANY, LLC - LEADVILLE, COLORADO

Drafted By: *C. Rice*

Date: *Jan 2021*

FIGURE **1**

CJK MILLING
REMOVE ▲ REUSE ▲ RESTORE

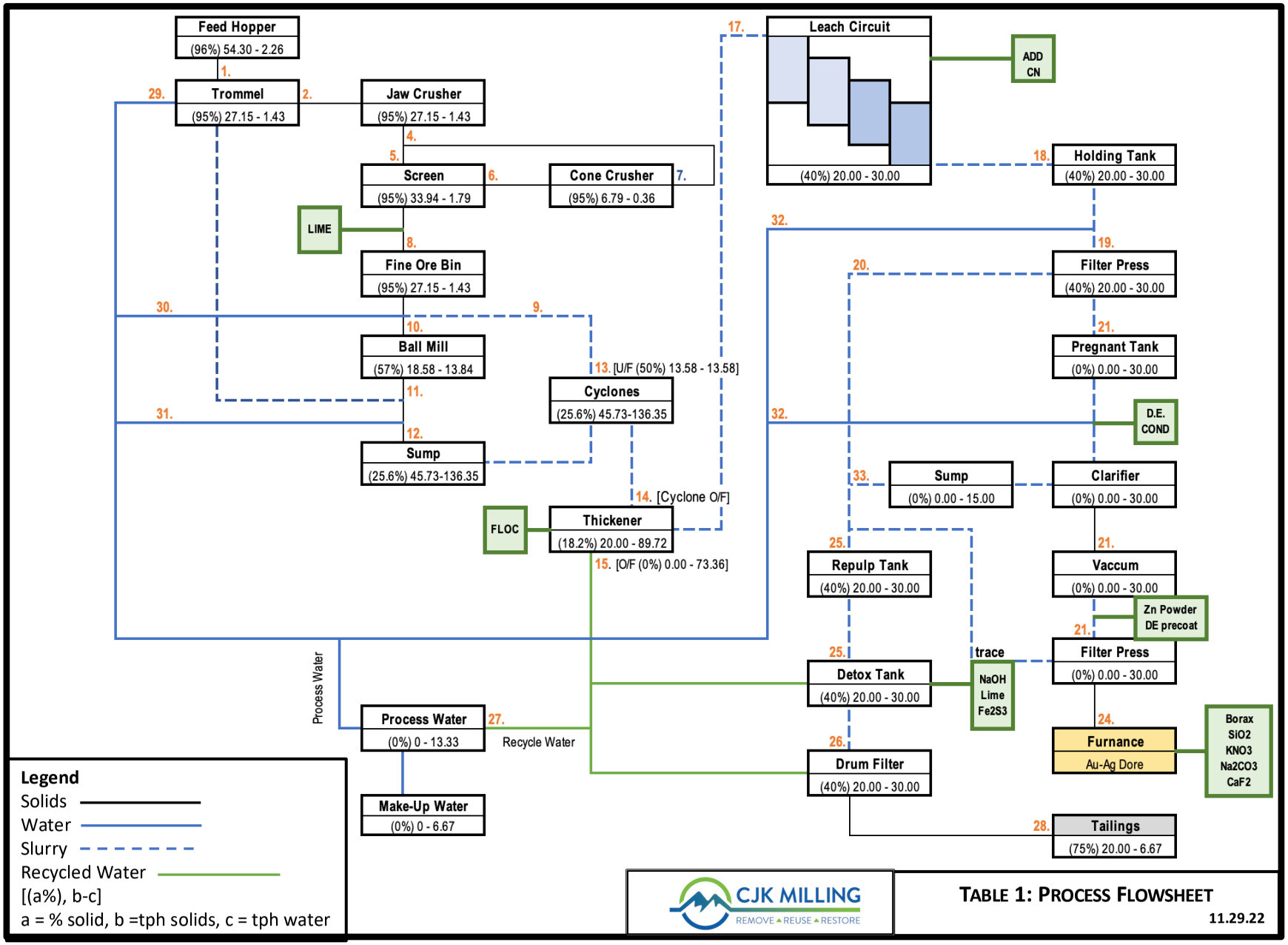

Feed Hopper
(96%) 54.30 - 2.26
1.
Trommel
(95%) 27.15 - 1.43
2.
Jaw Crusher
(95%) 27.15 - 1.43
29.
4.
5.
Screen
(95%) 33.94 - 1.79
6.
Cone Crusher
(95%) 6.79 - 0.36
7.
LIME
8.
Fine Ore Bin
(95%) 27.15 - 1.43
30.
9.
10.
Ball Mill
(57%) 18.58 - 13.84
13. [U/F (50%) 13.58 - 13.58]
11.
Cyclones
(25.6%) 45.73-136.35
31.
12.
Sump
(25.6%) 45.73-136.35
14. [Cyclone O/F]
FLOC
Thickener
(18.2%) 20.00 - 89.72
15. [O/F (0%) 0.00 - 73.36]
17.
Leach Circuit
(40%) 20.00 - 30.00
ADD CN
18.
Holding Tank
(40%) 20.00 - 30.00
32.
19.
Filter Press
(40%) 20.00 - 30.00
20.
21.
Pregnant Tank
(0%) 0.00 - 30.00
32.
D.E. COND
33.
Sump
(0%) 0.00 - 15.00
Clarifier
(0%) 0.00 - 30.00
25.
Repulp Tank
(40%) 20.00 - 30.00
21.
Vaccum
(0%) 0.00 - 30.00
Zn Powder
DE precoat
21.
trace
Filter Press
(0%) 0.00 - 30.00
25.
Detox Tank
(40%) 20.00 - 30.00
NaOH
Lime
Fe2S3
24.
Furnance
Au-Ag Dore
Borax
SiO2
KNO3
Na2CO3
CaF2
26.
Drum Filter
(40%) 20.00 - 30.00
28.
Tailings
(75%) 20.00 - 6.67
Process Water
Process Water
(0%) 0 - 13.33
27.
Recycle Water
Make-Up Water
(0%) 0 - 6.67
Legend
Solids
Water
Slurry
Recycled Water
[(a%), b-c]
a = % solid, b =tph solids, c = tph water
CJK MILLING
REMOVE REUSE RESTORE
TABLE 1: PROCESS FLOWSHEET
11.29.22

Table 2 Mill Process Chemical Summary

Reagent Consumption, Grinding & Agitated Leach Circuit

No.	Reagent	Consumption		
		Unit/Rate (lbs./st)	Daily (lbs)	Monthly (tons)
1	Water	587	234,600	3,578
2	Flocculant/TNS	1.66	664.00	10.1
3	Lime - CaO	8.00	3,200	49
3.5	Caustic Soda-NaOH	0.10	40	0.61
4	Sodium Cyanide-NaCN	4.00	1,600	24.4
5	Sodium Bisulfite - NaHSO3	0	0	0
6	Copper Sulfate - CuSO4	0	0	0
7	Lead Nitrate - Pb(NO3)2	0.01	4.00	0.06
8	Ferrous Sulfate-FeSO4	0.5	200	3.1
9	Zinc Powder-Zn	0.11	44	0.67
10	Diatomaceous Earth	0.01	4	0.06
	Flux Materials			
11	Potassium Nitrate-KNO3	0.007	2.8	0.04
12	Silica-Si	0.01	4	0.06
13	Borax Glass	0.01	4	0.06
14	Flourspar-CaF2	<100Lbs/y		
15	Soda Ash-Na2CO3	0.0014	0.56	0.0085
16	Salt-NaCl	<100Lbs/y		

APPENDIX 13-8

STATE HISTORIC PRESERVATION OFFICE - CONSULTATION

#36 MAPPED

G ELMG A B

Colorado Cultural Resource Survey
Management Data Form
(page 1 of 4)
Complete this form for each resource in addition to other appropriate forms--see Manual for information

1. State Site Number **5LK892**
2. Temporary Site Number _____

3. Attachments (check as many as apply)
- ☐ Prehistoric Archaeological
- ☐ Historical Archaeological Component
- ☒ Historical Architectural Record/Building Form
- ☒ Sketch/Instrument Map (required)
- ☒ U.S.G.S. Map Photocopy (required)
- ☒ Photograph(s)
- ☐ Other, specify _____

4. Official determination (OAHP use only)
- ☒ Determined Eligible (A+C) - 4/29/96
- ☐ Determined Not Eligible
- ☐ Nominated
- ☐ Listed
- ☐ Need Data
- ☐ Contributing to NR Dist.
- ☐ Not Contributing to NR Dist.

I. IDENTIFICATION

5. Resource Name **Arkansas Valley Smelter**
6. Project Name/Number **Selected Smelter Sites, OU5**
7. Government Involvement: Local ☐ State ☐ Federal ☒
   Agency **EPA**
8. Site Categories: Check as many as apply
   Prehistoric: archaeological site ☐ paleontological site ☐
   in an existing National Register District? yes ☐ no ☐ name _____
   Historic: archaeological site ☐ building(s) ☒ structure(s) ☒ object(s) ☒
   in an existing National Register District? yes ☒ no ☐ name **Leadville Mining District (5LK856)**
9. Owner/Owner/s Address **Private**
10. Boundary Description and Justification **Extent of slag and known associated features**
11. Site Dimensions **1295 E-W** m **800 N-S** m Area **1,036,000** m^2 (÷4047) **201** acres
    Area was calculated as Length x Width _____ (rectangle/square) OR (length x width) x .785 **X** (ellipse)

II. LOCATION

12. Legal Location

PM	6th	Township	9S	Range	80W		1/4 of	S 1/2 NE	1/4 of	NE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	NW	1/4 of	NE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	SW	1/4 of	NE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	SE	1/4 of	NE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	NE	1/4 of	SE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	NW	1/4 of	SE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	N 1/2	1/4 of	SW	1/4 of	SE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	NW	1/4 of	SE	1/4 of	SE	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	S 1/2	1/4 of	NE	1/4 of	NW	1/4 of	SW	1/4 Section	27	OK	
PM	6th	Township	9S	Range	80W	SE	1/4 of	NW	1/4 of	NW	1/4 of	SW	1/4 Section	27	OK	
PM	6th	Township	9S	Range	80W		1/4 of	SW N	1/4 of	NW	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	SE	1/4 of	NW	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W		1/4 of	NE	1/4 of	SW	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	NE	1/4 of	NW S W	1/4 of	SW	1/4 of	SW	1/4 Section	27	OK	
PM	6th	Township	9S	Range	80W		1/4 of	SW	1/4 of	SW	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	N	1/4 of	SE	1/4 of	SW	1/4 of	SW	1/4 Section	27		
PM	6th	Township	9S	Range	80W	E 1/2	1/4 of	SE	1/4 of	NE	1/4 of	SE	1/4 Section	28		
PM	6th	Township	9S	Range	80W	E 1/2	1/4 of	NE	1/4 of	SE	1/4 of	SE	1/4 Section	28		

if section is irregular, explain alignment method _____

State Site # **5LK892** Management Data Form
Temporary # _____ (page 2 of 4)

1) 13; 385645 4343619
2) 13; 385910 4343623
3) 13; 386176 4343492
4) 13; 386138 4343262
5) 13; 385987 4343122
6) 13; 385600 4343102
7) 13; 385[illegible] 4343321

See attached

13. USGS Quad **Leadville south** 7.5' ☒ 15' ☐ Dates(s) **1969** (attach photocopy)

14. County **Lake** 15. Other Maps _____

16. UTM Reference

A.	**13; 385260**	mE	**4343300**	mN
B.	**13; 385720**	mE	**4343080**	mN
C.	**13; 385780**	mE	**4343620**	mN
D.	**13; 386180**	mE	**4343440**	mN

17. Address _____ Lot _____ Block _____ Addition _____

18. Location/Access **Take Highway 24 from Leadville approximately 1 3/4 miles. Site is located NW of the highway.**

III. NATURAL ENVIRONMENT

19. Topographic Feature(s)

☐	mountain	☐	ledge	☐	playa
☐	hill	☒	terrace/bench	☐	talus slope
☐	tableland/mesa	☐	canyon	☐	alluvial fan
☐	ridge	☐	valley	☐	plain
☐	saddle/pass	☐	basin	☐	dune
☐	alcove/rockshelter	☐	floodplain	☐	_____
☐	cliff	☐	cutbank	☐	_____
☐	slope	☐	arroyo/gully	☐	_____

20. Describe on-site topography (mention named landforms) **5LK892 sits on the north terrace above California Gulch**

21. Site Elevation **9,820** feet = (x .3048) **2,993** meters 22. Aspect **SE**

23. Degree of slope on site **0-20%** 24. Soil Depth **Unknown** cm

25. Soil description (character and color) **primarily slag, also alluvial soils and gravels.**

26. Depositional environment

☐	aeolian	☐	residual	☐	colluvial
☒	alluvial	☐	none	☐	moraine
☐	other, specify				

27. Nearest water: name/nature **California Gulch / permanent**
distance **350** m **1148** ft.

28. Nearest permanent water: name **same** distance _____ m _____ ft

29. Vegetation on site (list predominant species) **sparse grasses and forbs in portions of the smelter features; the slag pile is void of vegetation.**

30. Vegetation associations/communities surrounding site **same, with spruce/fir forest**

IV. National Historic Eligibility Assessment

31. Colorado Historical Society context (RP3) theme(s) **industrial/mining**

Specify **lead, zinc, silver, gold mining (1880-1945)**

32. Applicable National Register Criteria

- ☐ Does not meet any of the below National Register criteria
- ☒ A. associated with events that have made a significant contribution to the broad pattern of our history.
- ☐ B. associated with the lives of persons significant in our past.
- ☒ C. embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction
- ☐ D. has yielded, or may be likely to yield, information important in history or prehistory
- ☐ Qualifies under exceptions A through G (see Manual)

Level of Significance National ☒ State ☐ Local ☐

33. Condition

a. Architectural/Structural
- ☐ Excellent
- ☒ Good
- ☐ Fair
- ☐ Deteriorated
- ☒ Ruins

b. Archaeological/Paleontological
- ☐ Undisturbed
- ☐ Light disturbance
- ☐ Moderate disturbance
- ☐ Heavy disturbance
- ☐ Total disturbance

34. Describe condition **The site is in generally poor condition; virtually all of the machinery and equipment has been been removed from the site. Several smaller buildings and structures remain standing while many large features have collapsed and/or been removed.**

35. Is site vandalized? yes ☐ no ☐ describe **Unknown**

36. Eligibility Recommendation:

Eligible ☒ Not Eligible ☐ Need Data ☐

Statement of Significance/N.R.H.P. Justification Site 5LK892 is recommended as individually eligible for nomination to the NRHP under criteria A and C, and as a contributing element to the Leadville Historic Mining District (5LK856). The AV Smelter was the most significant and prominent smelter in the Leadville district, and played an important role in the development and growth of Asarco, the community of Leadville, and the mining and smelting industry in the Rocky Mountain region (Criterion A). While the site lacks sufficient integrity of physical remains to convey most of the details of the technologies and systems utilized when the site was in operation, the scope and scale of the remaining features does convey the magnitude of the industrial process. In addition, no other known smelter site in the Leadville Historic Mining District contains comparable remains sufficient to portray the complexity of the smelting process. The AV site is the best remaining example of the smelting industry that played an important role of the Leadville district (Criterion C).

37. If in an existing National Register District, is the site

Contributing ☒ Non-Contributing ☐

38. Is there National Register District Potential? yes ☒ no ☐ discuss **It is within the Leadville Historic Mining District 5LK856.**

MANAGEMENT AND ADMINISTRATIVE DATA

39. Threats to Resource: Water erosion ☐ wind erosion ☐ animal activity ☐ neglect ☐ vandalism ☐ recreation ☐ construction ☒ other (specify) **remedial actions**

Comments:

40. Existing Protection: none ☐ marked ☐ fenced ☐ patrolled ☐ access controlled ☒ other (specify)

41. Local landmark designation **NA** 42. Easement

43. Management Recommendations **5LK892 has been adequately recorded, photographed and mapped; extensive historical research and documentation has been previously conducted and/or published for the site. No further work is recommended at this time. If a remedial action is selected for all or portions of the site, an assessment of effect should be performed to determine the effect on those characteristics for which the site is considered eligible and contributing.**

VI. DOCUMENTATION

44. Previous Actions Accomplished at the site
    a. Excavations: test ☐ partial ☐ Complete ☐ Date(s):
    b. Stabilization: Date(s)
    c. HABS/HAER Documentation: Date(s) & Numbers
    d. Other

45. Known collections/reports/interviews and other references (list) **Jacobs Engineering "Historic Mineral Processing Operations of the Leadville Mining District" (1991); 1883, 1886, 1889, 1895 & 1937 Sanborn Insurance Maps; "Leadville: Colorado's Magic City" (Blair: 1980); "Ores to Metals, the Rocky Mountain Smelting Industry", (Fell: 1979)**

46. Primary Location of Additional Data **Lake County Public Library; Norlin Library, CU Boulder**

47. State or Federal Permit Number Collection Authorized: yes ☐ no ☐
    Artifact Collection: yes ☐ no ☒
    Method: Diagnostics ☐ grab sample ☐ random sample ☐ transect ☐
    Other (specify)
    Artifact Repository **NA**

48. Photograph Nos. **AV95-1, AV95-2, AV95-3, AV95-4 AV95-5, AV95-6** negatives filed at **Foothill Engineering Consultants, Inc.**

49. Report Title **Cultural Resources Investigations at Selected Smelter Sites, Operable Unit 5, California Gulch Superfund Site, Lake County, Colorado**

50. Recorder(s) **David Killam, Ted Hoefer III** Date(s) **9/21-22/95**

51. Affiliation **Foothill Engineering Consultants, Inc.** Phone Number **(303) 278-0622**

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 1c**
4. Building or Structure Name: **Mechanics Shop/Boiler House on 1937 Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-5, exp 14-18**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Utility building**
8. Architectural Style: **vernacular**
9. Building Support System: **brick**
10. Dimensions: L: **225'** W: **60'** = Square Feet: **13,500**
11. Number of Stories: **Two on west end, one on eastern 2/3rds**
12. Building Plan (Footprint, shape): **rectangular**
13. Landscaping or Special Setting Features: **Industrial smelter complex.**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name):

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Side gable, covered with tin, fiberglass, asphalt roofing.**
16. Walls: **Brick, except east end, which is galvanized metal over brick. North wall is sagging and beginning to collapse.**
17. Foundation/Basement: **None**
18. Chimney(s): **One metal chimney on north roof above auto shop.**

19. Windows:
Glass brick in upper level.

20. Doors:
Several garage doors (5) on south side, sliding iron/wood door just west of garages.
Two arched wide doors on east end of south side.

21. Porches:
None

22. General Architectural Description:
Five garages on east end, plus two inaccessible rooms. At least two rooms on west end, one on far west completely destroyed. Far western garage is an auto shop with one bay. Rest of structure is inaccessible.

FUNCTION

23. Current Use: **Storage**

24. Original Use: **Mechanics shop - boiler house in 1937.**

25. Intermediate Use(s):

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction **Unknown**
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **Roof displays several different coverings; west end has collapsed.**

Additions and Date:

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: **See Management Data Form.**

32. Associated Contexts and Historical Information:

(use continuation sheets)

33. Other Recording Information:

Specific References to the Structure/Building:

34. Archaeological Potential: ☐ yes ☐ no Justify:

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-22-95**

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 12**
4. Building or Structure Name: **Residence 1. Not labeled. 1937 Sanborn.**
5. Complex / Site Name: **Arkansas Valley Smelter**
6. Photo #: **AV95-4, exp 1-4**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **House - residence**
8. Architectural Style: **Vernacular**
9. Building Support System: **Wood frame**
10. Dimensions: L: **75'** W: **40'** = Square Feet: **3,000**
11. Number of Stories: **1½ main story with attic**
12. Building Plan (Footprint, shape): **rectangular**
13. Landscaping or Special Setting Features: **Residence associated with the Arkansas Smelter; industrial landscape.**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **A small garage of the same style is just off northwest corner. A series of sidewalks, brick piles and small foundations are located immediately to the west of Aspen grove. An abandoned, wood framed well is in this area. May have been the location of other houses.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Side-gabled with asphalt shingles.**
16. Walls: **Wooden siding, yellowish-tan paint.**
17. Foundation/Basement: **Brick foundation.**
18. Chimney(s): **Sheet metal chimneys on front southwest corner and back porch.**

19. Windows:
Single pane glass windows on south, east, west.

20. Doors:
Front door on southeast corner, back door on porch.

21. Porches:
2 - on front southeast corner and the back porch on the north. Back porch is covered.

22. General Architectural Description:
Single story wood frame house with attic and covered back porch. Small garage with door on south, window on west wall. Garage has shake roof, asphalt shingles on house. Interior is inaccessible. The house is serviced by gas and electric. Curb and gutter to south of house.

FUNCTION

23. Current Use: **Being remodeled at the time of site recording. Apparently being used as an office.**

24. Original Use: **House**

25. Intermediate Use(s): **Unknown**

ARCHITECTURAL HISTORY

26. Architect: **Unknown**

27. Builder:

28. Date of Construction
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **Unknown**

Additions and Date:
Back porch appears to be an add-on.

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment:

32. Associated Contexts and Historical Information: **Probably a residence used by AV Smelter employees, probably owned by AV Smelter.**

(use continuation sheets)

33. Other Recording Information:

Specific References to the Structure/Building:

34. Archaeological Potential: ☐ yes ☒ no Justify:

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-21-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 13**
4. Building or Structure Name: **Carpenter Shop. 1937 Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-5, exp 1-4**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Shop/Garage**
8. Architectural Style: **Vernacular**
9. Building Support System: **Wood frame**
10. Dimensions: L: **75'** W: **45'** = Square Feet: **3,375**
11. Number of Stories: **Two**
12. Building Plan (Footprint, shape): **Rectangular**
13. Landscaping or Special Setting Features: **Industrial Smelter complex**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **Industrial trash is scattered all around the building.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Offset side gable; offset is to the north.**
16. Walls: **Vertical wood planks.**
17. Foundation/Basement: **wood plank and brick.**
18. Chimney(s): **None**

19. Windows:
West - 3 upper windows, 5 lower
North - 5 windows
South - 7 upper windows, 3 lower
East - 4 windows

20. Doors:
Single door - south side east wall, garage door on south side, single door and garage door on west side. Single door on north wall, east corner.

21. Porches:
None

22. General Architectural Description:
Wood frame building built in gentle hill slope. South wall is higher than north wall. One story on north side. Two stories on south side. No access to interior.

FUNCTION

23. Current Use: **Storage.**

24. Original Use: **Carpenter shop.**

25. Intermediate Use(s):

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date:
Windows have been covered with fiberglass. Doors are boarded up.

Additions and Date:

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: _____

32. Associated Contexts and Historical Information: _____

(use continuation sheets)

33. Other Recording Information: _____

Specific References to the Structure/Building: _____

34. Archaeological Potential: ☐ yes ☒ no Justify: _____

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-22-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 14**
4. Building or Structure Name: **Pumphouse**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **V95-5, exp 9-13**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Shop**
8. Architectural Style: **Vernacular**
9. Building Support System: **Brick**
10. Dimensions: L: **60'** W: **35'** = Square Feet: **2,100**
11. Number of Stories: **1**
12. Building Plan (Footprint, shape): **Rectangular**
13. Landscaping or Special Setting Features: **Industrial smelter complex**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name):

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Side gable, sheet metal roof supported by steel beams.**
16. Walls: **Brick**
17. Foundation/Basement: **Brick**
18. Chimney(s): **None**

19. Windows:
North - 2, glass brick
East -1, glass brick
South -3, glass brick
West - 2, glass brick

20. Doors:
North - single door, west end.
East - single door, north end.

21. Porches:
None, but loading dock on west end.

22. General Architectural Description:
Single story, red brick building with glass brick windows. Single doors only, no garage doors. Bricks are deteriorated on north and south sides. Pump meters on east end.

FUNCTION

23. Current Use: **Unknown. No access to interior.**

24. Original Use: **Pump house or shipping/receiving.**

25. Intermediate Use(s): **Unknown**

ARCHITECTURAL HISTORY

26. Architect: _____

27. Builder: _____

28. Date of Construction **Unknown**
Actual: _____ Assessor: _____
Estimate: _____ based on: _____

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date: _____
Describe Modifications and Date: **Roof appears to be relatively new. Plywood has been placed under the gable on the west end.**

Additions and Date:

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: _____

32. Associated Contexts and Historical Information: _____

(use continuation sheets)

33. Other Recording Information: _____

Specific References to the Structure/Building: _____

34. Archaeological Potential: ☐ yes ☒ no Justify: _____

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-22-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 15**
4. Building or Structure Name: **Utility Building 1 - Matte Hoist House 1937, Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-5, exp 6-8**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Industrial/utility**
8. Architectural Style: **Vernacular**
9. Building Support System: **Brick**
10. Dimensions: L: **25'** W: **25'** = Square Feet: **625**
11. Number of Stories: **1**
12. Building Plan (Footprint, shape): **Square**
13. Landscaping or Special Setting Features: **Industrial Smelter complex**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **Located immediately to the southeast of the AV furnace, F. 1a.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Single gable - dip to the west. Wood plank roof.**
16. Walls: **Brick**
17. Foundation/Basement: **Brick**
18. Chimney(s): **None**

19. Windows:
None

20. Doors:
Single double-wide door on the north side

21. Porches:
None

22. General Architectural Description:
Square brick building approximately 30 ft. tall. Wood plank floor. Function unknown. Painted silver.

FUNCTION

23. Current Use: **Storage**

24. Original Use: **Unknown**

25. Intermediate Use(s): **Unknown**

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **None apparent.**

Additions and Date:
None.

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: _____

32. Associated Contexts and Historical Information: _____

(use continuation sheets)

33. Other Recording Information: _____

Specific References to the Structure/Building: _____

34. Archaeological Potential: ☐ yes ☒ no Justify: _____

35. Recorder(s) **D. Killam, T. Hoefer** Date(s): **9-22-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 16**
4. Building or Structure Name: **Utility Building 2, labeled "Oils" in 1937 Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-6, exp 9-12**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Utility**
8. Architectural Style: **Vernacular**
9. Building Support System: **Brick**
10. Dimensions: L: **50'** W: **25'** = Square Feet: **1,250**
11. Number of Stories: **1**
12. Building Plan (Footprint, shape): **Rectangular**
13. Landscaping or Special Setting Features: **Industrial smelter complex.**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **Located in vicinity of 1895 ponds.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Side gable sheet metal.**
16. Walls: **Brick, painted silver.**
17. Foundation/Basement: **Brick, no basement.**
18. Chimney(s): **Stovepipe on north end, west roof**

19. Windows:
North - arched, wood case window
East - Large window on north end, arched; 4 small windows on south end under eves
South - One in upper center
West - Large window on north end, arched; 3 small windows on south end under eves

20. Doors:
Single door with arch on west end

21. Porches:
None

22. General Architectural Description:
2 room structure. North room occupies northern third, door on west side of interior brick wall leads into southern room (inaccessible). Single story, painted silver. Arches over north door (only entrance) and main windows.

FUNCTION

23. Current Use: **Storage**

24. Original Use: **Unknown**

25. Intermediate Use(s):

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction **Unknown**
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **None apparent**

Additions and Date:
None

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: _____

32. Associated Contexts and Historical Information: _____

(use continuation sheets)

33. Other Recording Information: _____

Specific References to the Structure/Building: _____

34. Archaeological Potential: ☐ yes ☒ no Justify: _____

35. Recorder(s) **D. Killam, T. Hoefer** Date(s): **9-22-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 17**
4. Building or Structure Name: **Office Building 2 - Vicinity of "office" but not exact location or plan as 1937 Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-5, exp 19-25**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Office building**
8. Architectural Style: **Vernacular**
9. Building Support System: **Concrete and cinder block**
10. Dimensions: L: **110'** W: **50'** = Square Feet: **5,500**
11. Number of Stories: **1, with basement**
12. Building Plan (Footprint, shape): **Rectangular**
13. Landscaping or Special Setting Features: **Industrial smelter complex**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **Located to east and across the road from the Mechanics Shop.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Flat, tar paper and asphalt**
16. Walls: **Cinder block. Rounded cinder block columns protrude slightly from the walls between the windows.**
17. Foundation/Basement: **Concrete. Basement is present, but inaccessible.**
18. Chimney(s): **6 metal chimneys/vents on roof.**

19. Windows:
South - 7 single pane under glass brick North - 8 single pane under glass brick
East - 3 glass brick in basement
Glass brick on north south ends. Single pane under glass brick flank the door. All windows are steel framed.

20. Doors:
South - single door on west and east ends.
West - single door in middle of wall

21. Porches:
South - concrete porches by doors.
West - concrete porches by doors; steel shades over entrance ways.

22. General Architectural Description:
Cinder block and concrete building, flat roof (Industrial Art Deco). Building is electrified. Building is in good shape - interior is not accessible; heating equipment on northeast corner.

FUNCTION

23. Current Use: **Storage**

24. Original Use: **Office**

25. Intermediate Use(s):

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction **Unknown**
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **None apparent.**

Additions and Date:
None

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

- ☐ Does not meet any of the below National Register criteria
- ☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.
- ☐ B. Associated with the lives of persons significant in our past.
- ☒ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- ☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.
- ☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment: **Distinctive for Leadville area. Distinctive of period(?).**

32. Associated Contexts and Historical Information:

(use continuation sheets)

33. Other Recording Information:

Specific References to the Structure/Building:

34. Archaeological Potential: ☐ yes ☒ no Justify:

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-22-95**

Colorado Cultural Resource Survey

Historic Architectural Building/Structure Form

Use this form in conjunction with the Management Data Form. One of these forms should be completed for each standing historical building or structure. Include a photograph, sketch, map, and a photocopy of the quadrangle map showing building location.

1. State Site Number **5LK892** 2. Temporary Number _____
3. Map ID Number / Feature Number or Code: **Feature 18**
4. Building or Structure Name: **Office Building 2; "Office" on 1937 Sanborn**
5. Complex / Site Name: **AV Smelter**
6. Photo #: **AV95-6, exp 6-8**

ARCHITECTURAL DESCRIPTION

7. Complex / Building / Structure Type: **Office**
8. Architectural Style: **Vernacular**
9. Building Support System: **Brick**
10. Dimensions: L: **35'** W: **25'** = Square Feet: **875**
11. Number of Stories: **1**
12. Building Plan (Footprint, shape): **Rectangular**
13. Landscaping or Special Setting Features: **Industrial Smelter complex**
14. Associated Buildings, Features, or Objects - Describe material and function (map number / name): **Located immediately to the west of Dietrich's shop and to the south of the furnace.**

For the following categories include materials, techniques and styles in the description as appropriate:

15. Roof: **Side-gabled, covered with sheet metal.**
16. Walls: **brick, painted silver.**
17. Foundation/Basement: **concrete**
18. Chimney(s): **one, brick on south side of roof.**

19. Windows:
North - 2 windows flank door, brick arch over windows, windows are wood framed;
South - 2 arched, framed windows
West - 2 arched, framed windows

20. Doors:
Single wooden door in middle of north wall. 3 doors leading to closets on east end.

21. Porches:
Concrete step in front of north door.

22. General Architectural Description:
Single story brick structure with metal roof. Building is painted silver. Building has two main rooms with three closets on east end.
Building is beginning to collapse.

FUNCTION

23. Current Use: **Storage.**

24. Original Use: **Office (informants)**

25. Intermediate Use(s):

ARCHITECTURAL HISTORY

26. Architect:

27. Builder:

28. Date of Construction **Unknown**
Actual: Assessor:
Estimate: based on:

29. MODIFICATIONS: Minor ☐ Moderate ☐ Major ☐ Moved ☐ Date:
Describe Modifications and Date: **North windows are boarded with plywood.**

Additions and Date:

30. **NATIONAL REGISTER CRITERIA/NATIONAL REGISTER ELIGIBILITY**

☒ Does not meet any of the below National Register criteria

☐ A. Associated with events that have made a significant contribution to the broad pattern of our history.

☐ B. Associated with the lives of persons significant in our past.

☐ C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

☐ D. Has yielded, or may be likely to yield, information important in history or prehistory.

☐ Qualifies under exceptions A through G (see Manual).

Level of Significance: ☐ National ☐ State ☐ Local

31. Justify Assessment:

32. Associated Contexts and Historical Information:

(use continuation sheets)

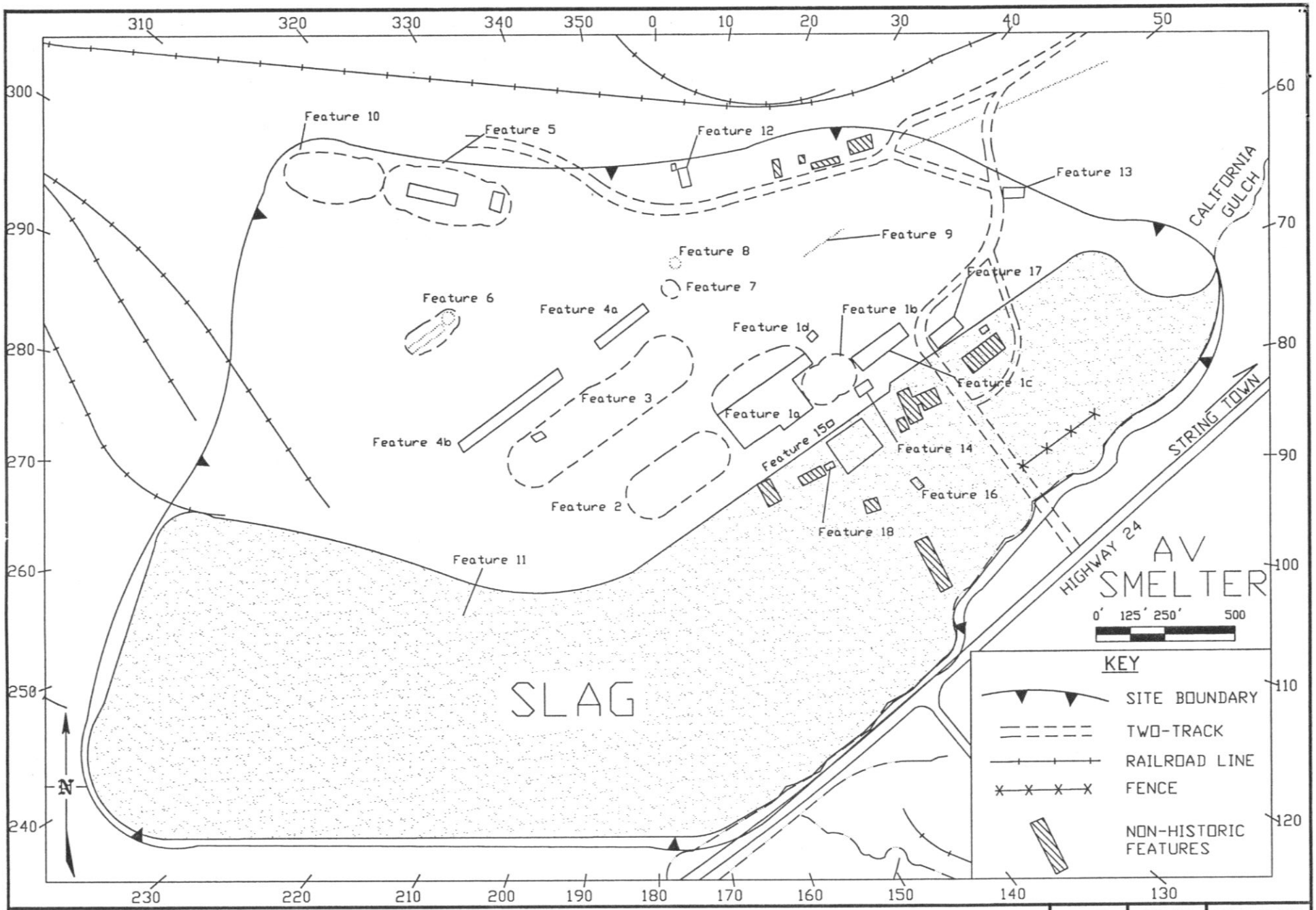
33. Other Recording Information:

Specific References to the Structure/Building:

34. Archaeological Potential: ☐ yes ☒ no Justify:

35. Recorder(s) **T. Hoefer, D. Killam** Date(s): **9-22-95**

Colorado Historical Society, Office of Archaeology and Historic Preservation, 1300 Broadway, Denver, Colorado 80203, (303) 866-3395



FEC
FOOTHILL ENGINEERING CONSULTANTS, INC.

5LK892
THE AV SMELTER

DATE:	SCALE:	DRAWN BY:
1/96	SHOWN	-

93-603\AV-1.DWG 1/24/96

from: Jacobs Engineering 1991

3.3 California Smelter

The California Smelter, also known as the Chicago Reduction Works, began operations in June 1879 (1 pp. 625-26). The works were situated on the following claims: Chicago Reductions Works Placer (Survey No. 930), Chicago Reduction Works Mill Site #1 (Survey No. 931) and Chicago Reduction Works Mill Site #2, (Survey No. 932) (20). According to the Leadville city directories, the proprietors of the works were A.J. Jaescke, G.W. Bittinger and, G.M. Garrish in 1879 (21 p. 18); however in 1881 M.E. Smith and Company was in control (22 p. 48).

The California Smelter operated from June of 1879 to late 1880. Operations, as described in Emmons under "Smelter D," were similar to many of those located on California Gulch, with several levels and two water-jacket blast furnaces connected to dust chambers. The flue dust collected in these chambers was not mixed with lime as it was at most smelters, but was simply moistened with water and thrown in the furnace one shovel full per smelting charge (1). The capacity of these works was 24 tons per day. Problems with furnace operation caused frequent stoppages during 1879 but repairs were undertaken and operations continued through 1880. The production data in Emmons (1) indicate that about 500 tons of bullion were produced by smelting 4,200 tons of ore, for the year ending June 1880. This production leads to an estimate of 5,000 tons of waste generated (see Table 2.2). Assuming that one half this volume of waste was also generated in the remaining six months of 1880, the total volume of waste generated by the California Smelter operation is estimated to be 7,500 tons.

3.4 Arkansas Valley Smelter

The longest operating smelter in the Leadville area was the Arkansas Valley Smelter situated on lower California Gulch west of the city limits on the Germainia Placer (Survey No. 389) (23). The plant was built by Anton Eilers and Gustave Billing in 1879 (20 p. 50A). Due to Eiler's association with the Germania Smelter near Salt Lake City, Utah, the smelter was often called the Utah Smelter. The plant began operations in May 1879 and after its first year ranked third in bullion production behind the Grant and La Plata smelters (7 p. 96). The plant was divided into several levels with the furnace level and slag heaps at the lowest level toward the base of the slope. The bullion at this smelter was stacked on slag heaps in front of the furnaces to await shipment. Figure 3.2 depicts the Arkansas Valley Plant as it appeared in the late 1870's. In 1880 the Billing and Eilers Smelter had three furnaces of equal dimensions which were regarded as the model furnaces and were described in great detail under "Smelter C" in Emmons (1 p. 676). The water-jacket blast furnace had the same general design as those at other smelters, however the minor differences were held to account for considerable improvement in working qualities. In particular they employed a unique tap system for removing bullion from the furnace, rather than ladling the liquid from the lead-well as at other smelters. The bullion was drawn periodically into cast iron lead-pots and kept molten until it could be ladled into molds. The bullion bars thus obtained were generally of a more uniform shape and composition than those made at other smelters.

The plant also had a unique ventilation system which, rather than being restricted to a hood and chimney in front of each furnace, extended along the entire front of the building and provided much better ventilation. A uniform treatment of slags was adopted with slag being left in slag pots until a crust about two inches thick was formed on the sides and surface. The upper crust was then pierced, the slag pot overturned on the bank slope, and the molten contents allowed to run down the slope (1 p. 678). The remaining thin shells of slag material were then broken up for resmelting as this portion of the slag was found by assay to be slightly higher in silver than the portion discarded.

from: Jacobs Engineering 1991

The dust chambers at the works in 1880 were not the most efficient of their type, but did recover some of the fine dust which was then mixed with lime, molded into bricks and resmelted (1). The capacity of the works, with only two furnaces operating in mid 1880, was 80 to 100 tons per day. In winter of 1880, the Billing and Eilers Smelter enlarged by installing a third and fourth smelting unit, and monitoring their dust chamber and replaced the oil and gas illumination with electric lights.

In 1882 Eilers sold out to Billing and Eilers moved to Pueblo where he built the Eilers Plant (1 p. 100). Billing merged with the A.R. Meyer Milling and Sampling Company in April 1882 to form the Arkansas Valley Smelting Company (25 p. 71B).

In 1883 there were four furnaces in blast (26 p. 320) and by the end of 1883 a fifth furnace had been added. This plant (after the Grant fire) had become the largest smelting works in Leadville (27). By the year 1883, the production for Leadville mines had shifted to a greater proportion of sulfides. Technical problems connected with treatment of these ores were being encountered. One of the first adaptations to the increased sulfide production was the installation of roasting furnaces for pretreatment of ores, which reduced the sulfur and prepared them for blast furnace smelting. No information was available on the date of roasting furnace installation at the Arkansas Valley Smelter. However, in 1884 the plant treated more ore than any other smelter which indicates that sulfides were treated. Also, it is known that roasting furnaces were in place and operating by 1885 (28). Based on this information, it is likely that initial roasting furnaces were installed in 1884 or late 1883. The Last Chance and other mines in Park County sent ores to the smelter in July 1884 (29 p. 59).

By 1886 the seven furnaces in blast had the capacity to treat over 9,000 tons of ore per month (30 p. 299), and at the end of the year the plant had 15,000 tons of ore on hand for treatment (30 p. 388). The Arkansas Valley Smelting Company, which was incorporated in Missouri, filed Leadville as their principal place of business in January 1887 (31). During 1887, a further improvement was made in the lead fume condensation system when the company built a long tunnel connecting the furnaces with a stack erected on the hill some distance away. This system decreased the losses connected with escape of volatized metals in the furnace fume (30 p. 370). At this time, the Chrysolite Mine was sending two cars of ore per day to the smelter (32 p. 388), and by the close of the year the smelter was receiving ores from the Aspen District (33 p. 40).

In 1890 the Arkansas Valley Smelter was sold to the Kansas City Smelting and Refining Company, with A.R. Meyer as president (34 p. 239B). The Kansas City company also had works in El Paso, Texas and Argentine, Kansas (35 p. 110). Under this new management, the Arkansas plant was expanded and in the early 1890s additional roasters were installed, blast furnaces were enlarged, dust chambers were improved and older machinery was replaced. By 1892 the Arkansas Valley Smelter was operating five large capacity lead blast furnaces, six reverberatory furnaces, and two matte furnaces, with a capacity for treating 820 tons of ore daily (34 and 2). The plant yard had also been expanded and had 16 different tracks for moving ore and bullion. Ores from the A.Y. and Minnie Mine were sent to the plant on a regular basis in early 1883 and a new roasting plant for treatment of refractory ores was planned (36). Operations at the Arkansas Valley Smelter were the most consistent of all Leadville smelters, and though it was closed along with all the other plants during the silver panic of 1898 (37 p. 196), it was reopened January 16 of the next year and was the only lead smelter to resume regular operations (10). By March, the works were operating at capacity (38). Operations continued at or near capacity and in July of 1896 *The Engineering and Mining Journal* reported that the smelter was taking all the ore they could get (39 p. 36).

from: Jacobs Engineering 1991

The smelter situation in 1897 was greatly affected by a marked decrease in lead production. The only lead blast smelter operating in Leadville in 1897 was the Arkansas Valley Plant, and even this plant was obliged to buy lead ores from the Coeur d'Alene district to supply the lead necessary for recovery of silver from the Leadville dry ores (10). In September 1898 the Kansas City Smelting and Refining Company secured the Union Smelter to roast ores prior to smelting them at the Arkansas Valley plant (40 p. 286). Operation continued despite shortages of lead ores and coke until 1899 when the plant was purchased by the newly formed American Smelting and Refining Company (ASARCO). The ASARCO agreement made March 7, 1899, included the Kansas City Company as part of the merger (41 p. 290).

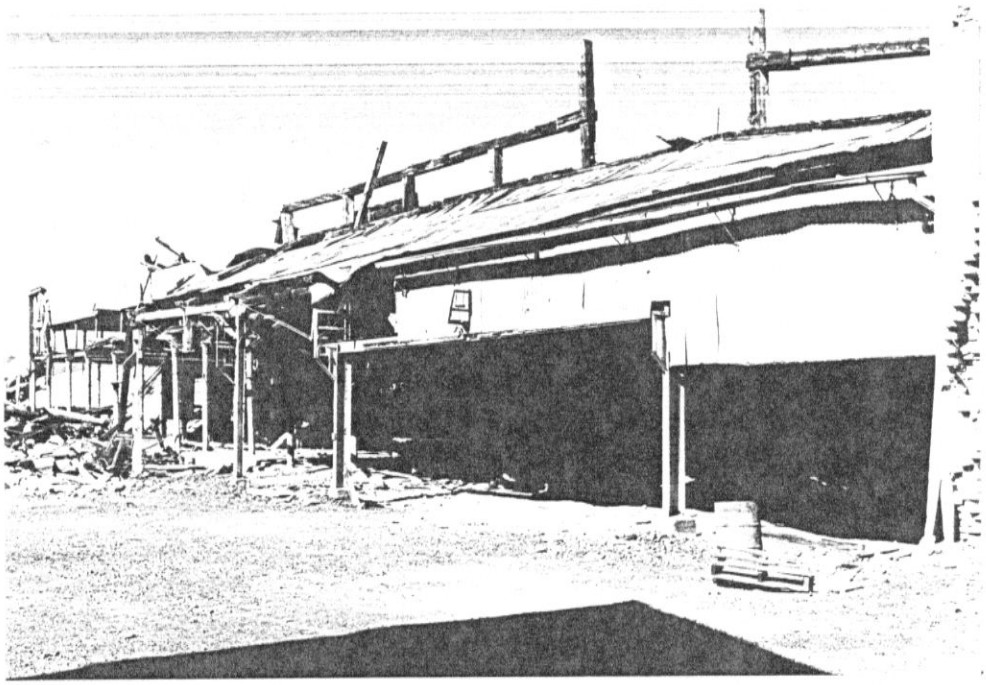
The Arkansas Valley Smelter, at the turn of the century, was the only surviving lead smelter. Operation continued until the final closure of the plant in 1961. The plant was rarely operated at capacity, but technological improvements continued to be made to keep the AV works competitive. Bag houses for the collection of dust and fume condensate were probably installed early in the century, and a new dust-flue one mile long was constructed in 1906.

In 1903, the plant purchased a pyritic furnace and though this operation never exceeded the production of the lead smelting works, this enabled the smelter to treat lower grade ores (42). In 1905, the Huntington-Heberline process, an improved lime roasting technique for treating sulfides, was adopted at the plant (43). By the next year the process was being used successfully in 24 hand reverberatory roasting furnaces (43). By 1915 many improvements had been made and 10 blast furnaces for smelting operated steadily throughout the year producing lead bullion and copper matte (13).

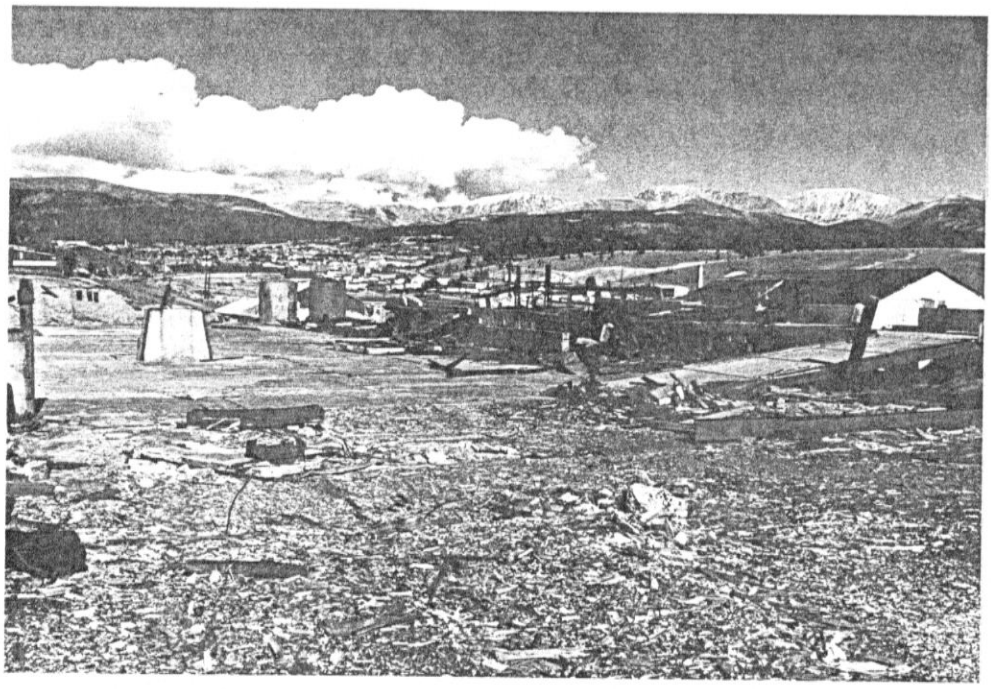
The production of the AV plant continued to decrease in response to decreased production from Leadville District mines. Except for a short period of closure during the depression of 1921, operations continued. In the twenties, through the thirties, forties and fifties, the plant continued working, but rarely with more than one furnace in blast (2). Much of their operation during this period was reworking old slag dumps of the Leadville district and reducing small quantities of ore mined in the Central Rockies (2). Figure 3.3 shows the plant as it appeared in the later years of operations.

According to an excerpt from a taped program on the history of Leadville (available at the Lake County Public Library), the molten slag from the smelter was discharged into cold water and solidified into a fine granulated material during the later years of operations at the AV plant. This process is known as "water-quenching." The size of the particles was greatly influenced by the temperature of the water in that colder water produced smaller particles. Up until this time, the molten slag was placed in large crucibles (or pots) and poured directly onto the slag heap where it was allowed to cool and solidify in the air. This slag is welded together and is referred to as "air-quenched" or "air-cooled."

Estimates of waste generated over the history of the plant would require a more detailed information review of production data for the smelter if it is available from ASARCO records. During a site reconnaissance visit in September 1988, the AV pile was observed to cover a large area approaching 100,000 square feet. The pile has nearly all been disturbed and is only a foot or two thick in some areas. In addition, some remains of the smelter structures are still standing at this location (see Figure 3.4).

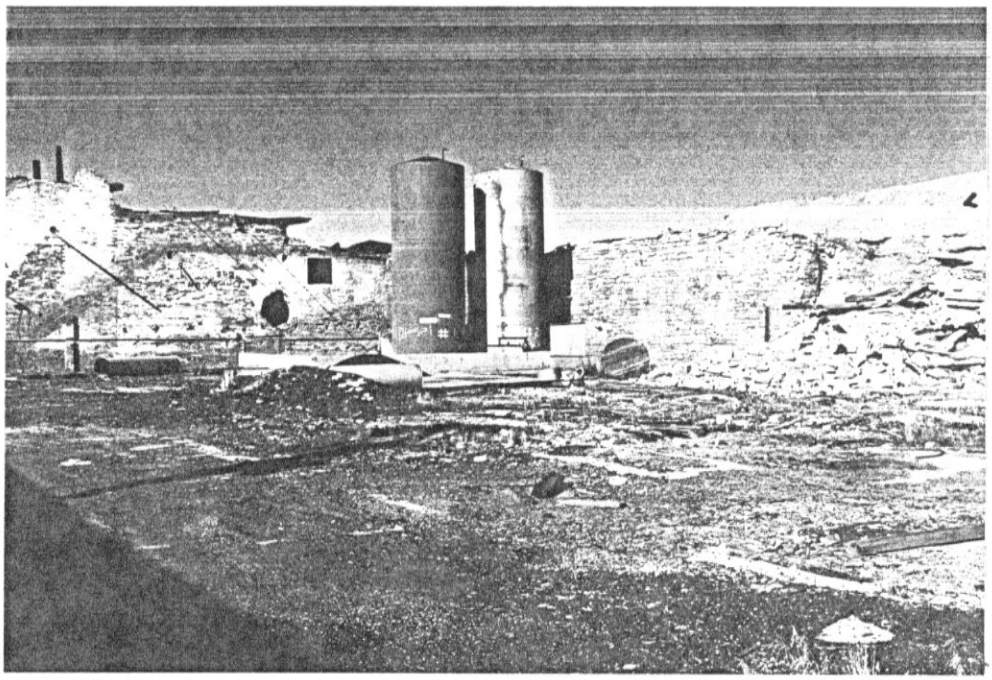


5LK892. View of Feature 1a, furnace building east exterior, looking west.

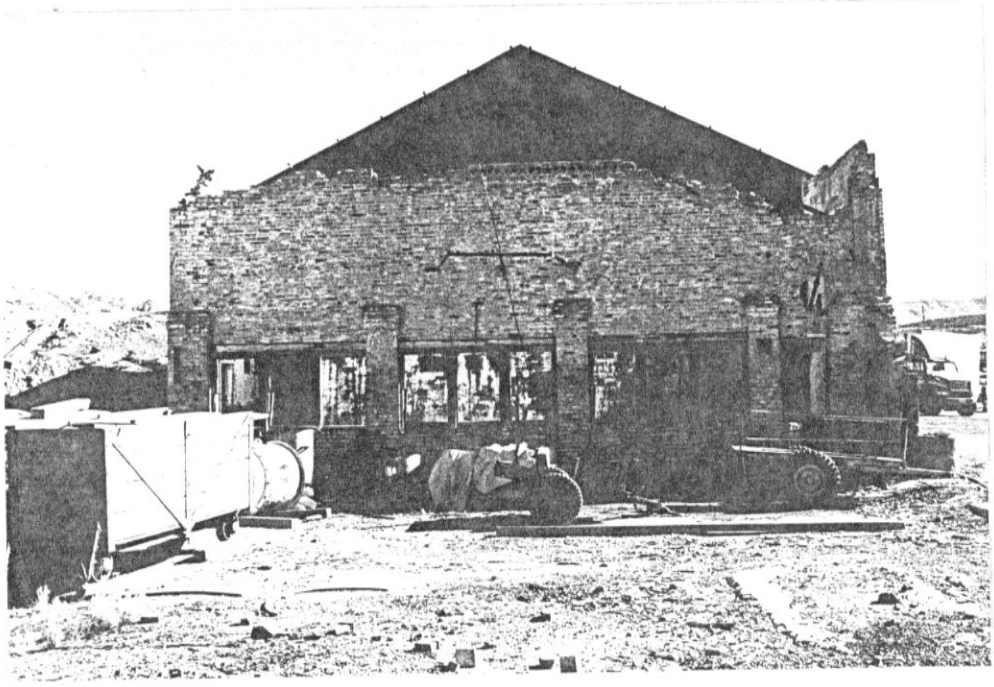


5LK892. View of Feature 1a, charge floor/ore house location, looking northeast.

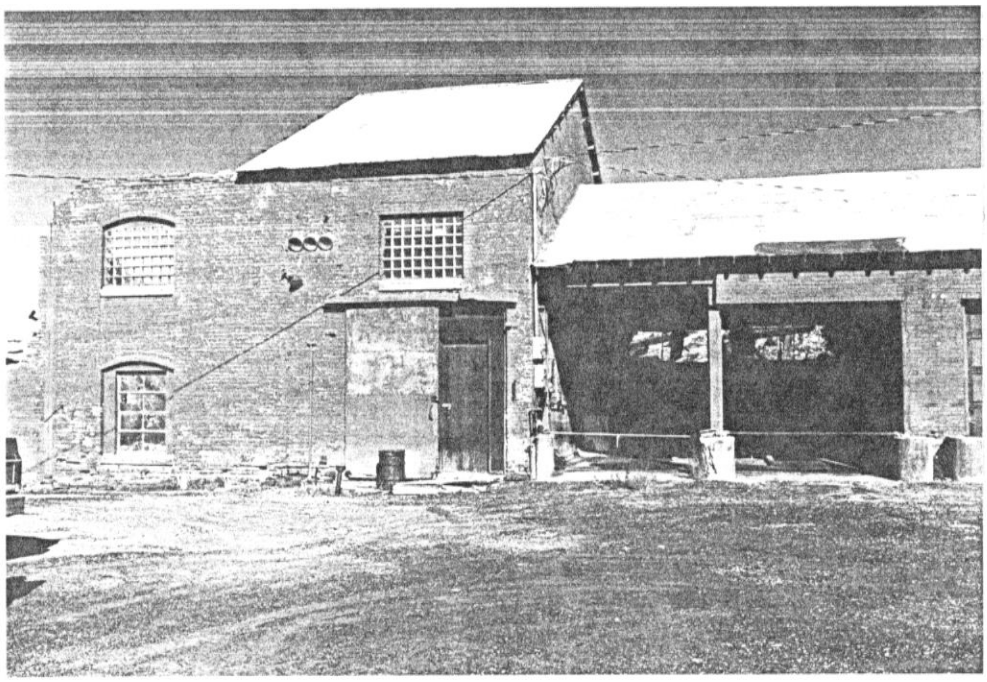
5LK892. View of Feature 1a, furnace building interior.



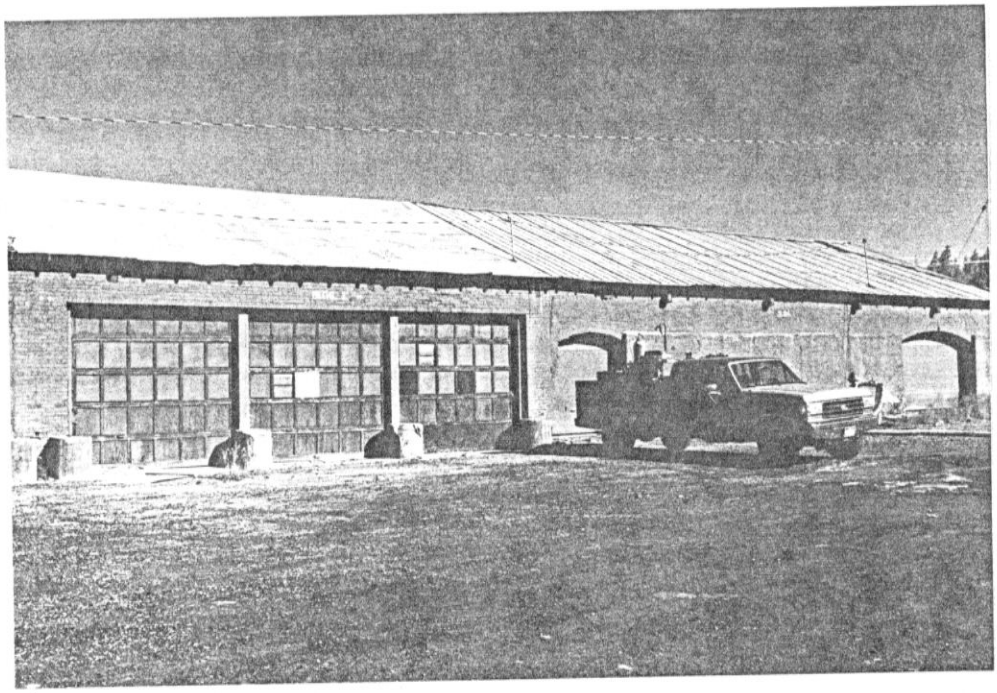
5LK892. View of Feature 1b, power and blower house, looking west.



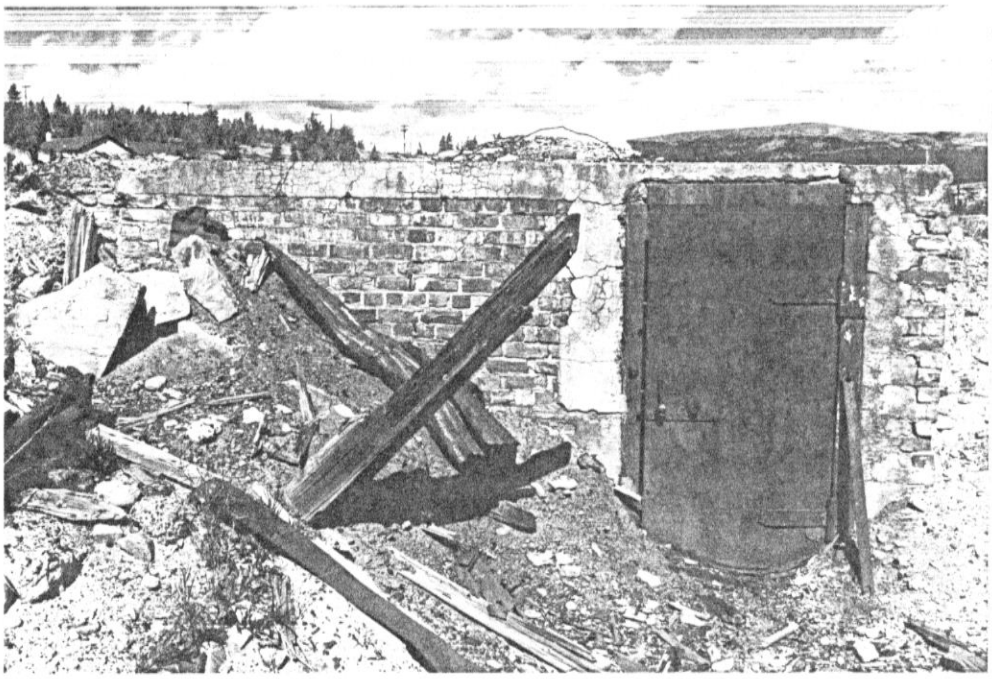
5LK892. View of Feature 1b, power and blower house, north end with switch room, looking northeast.



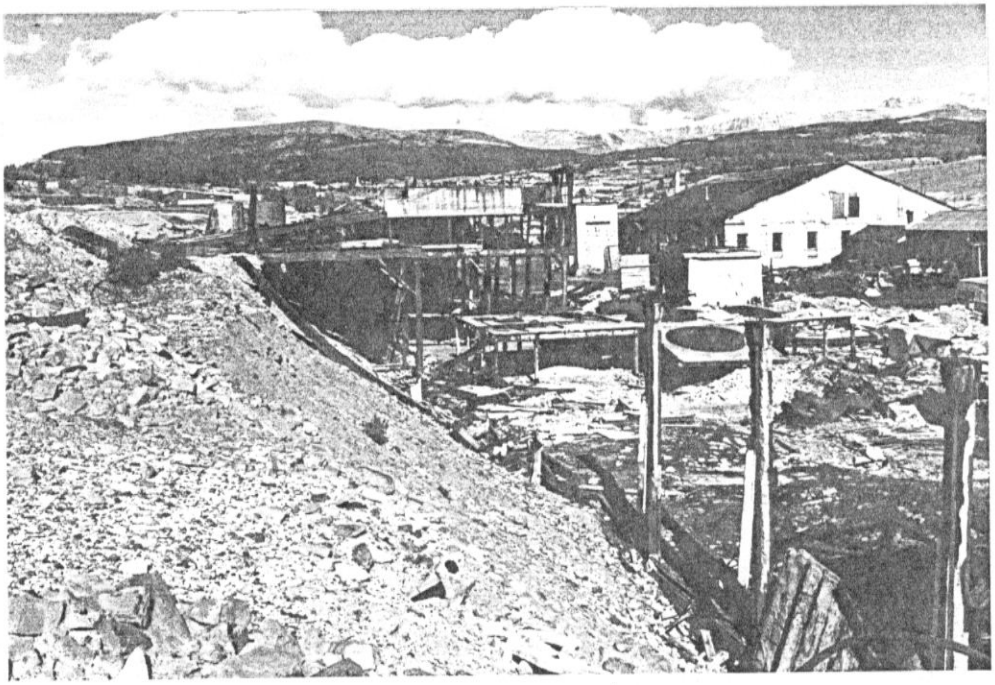
5LK892. View of Feature 1c, boiler house/mechanics shop, south end, east exterior, looking west.



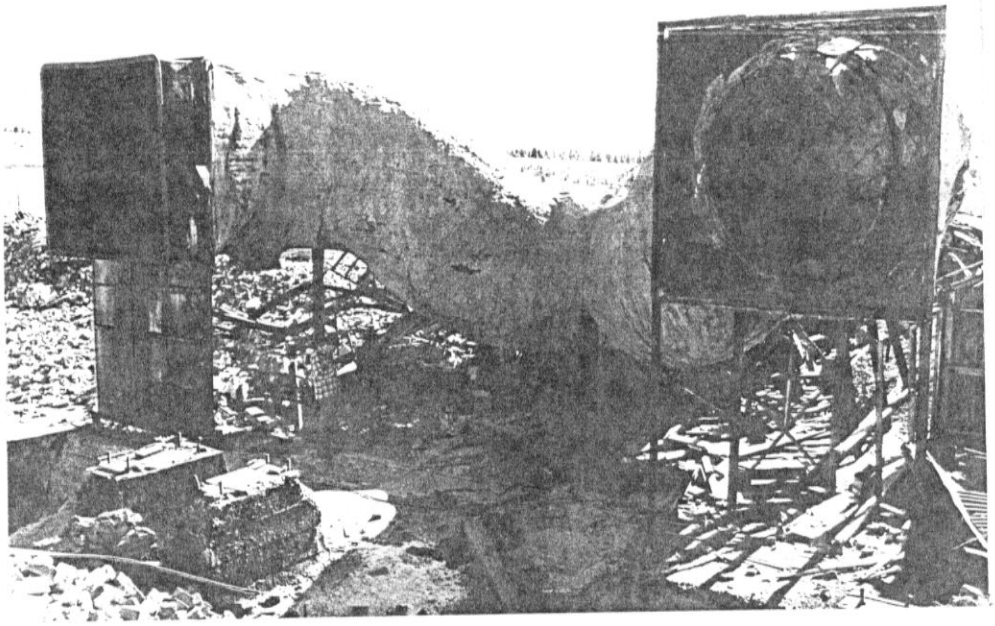
5LK892. View of Feature 1c, boiler house/mechanics shop, north end, east exterior, looking north.



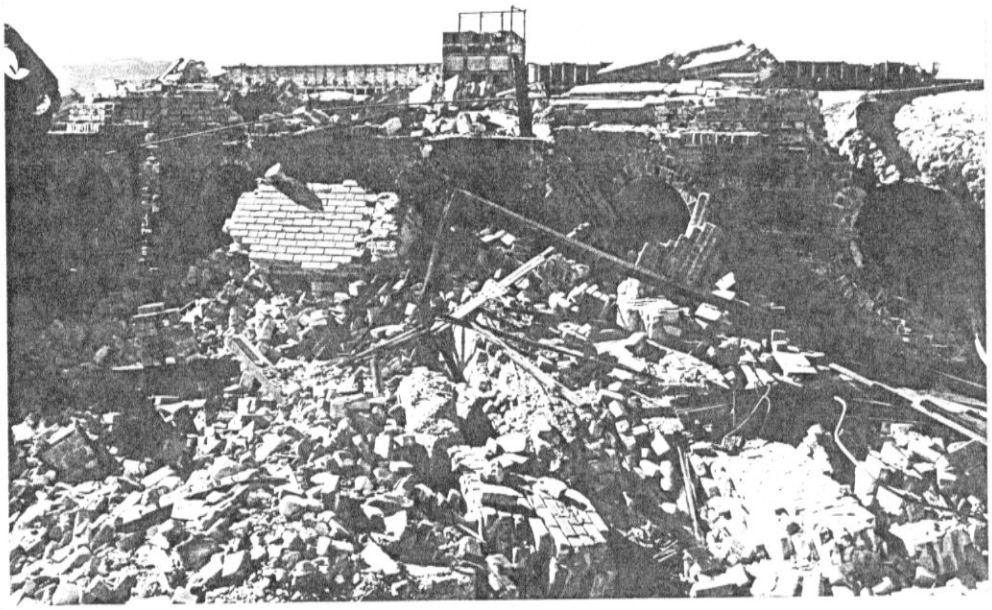
5LK892. View of Feature 1d, unidentified feature, south exterior, looking north.



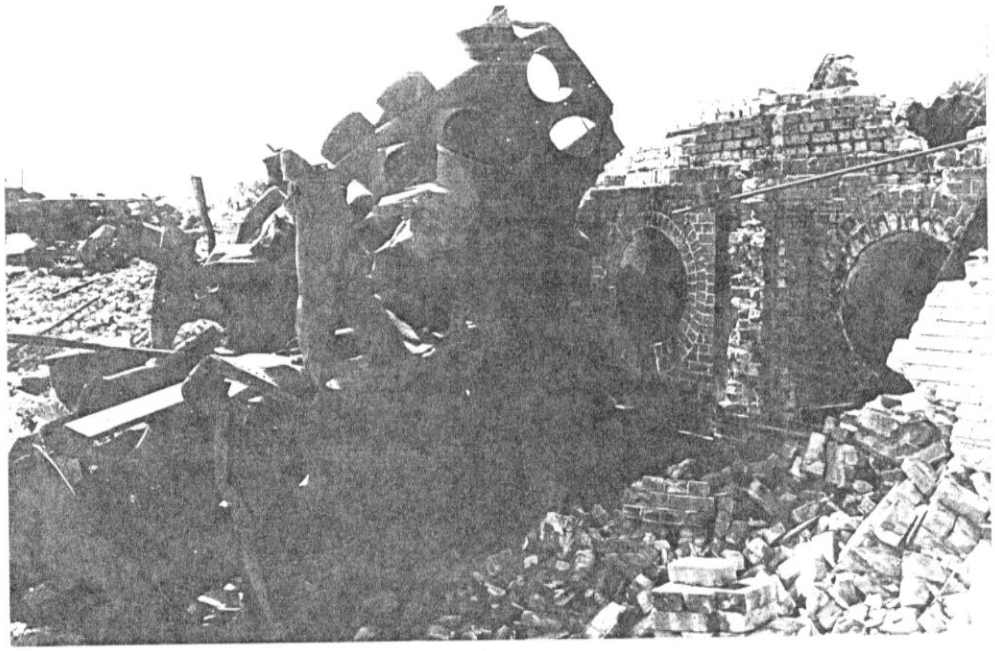
5LK892. General view of Feature 2, baghouse, from south end looking north.



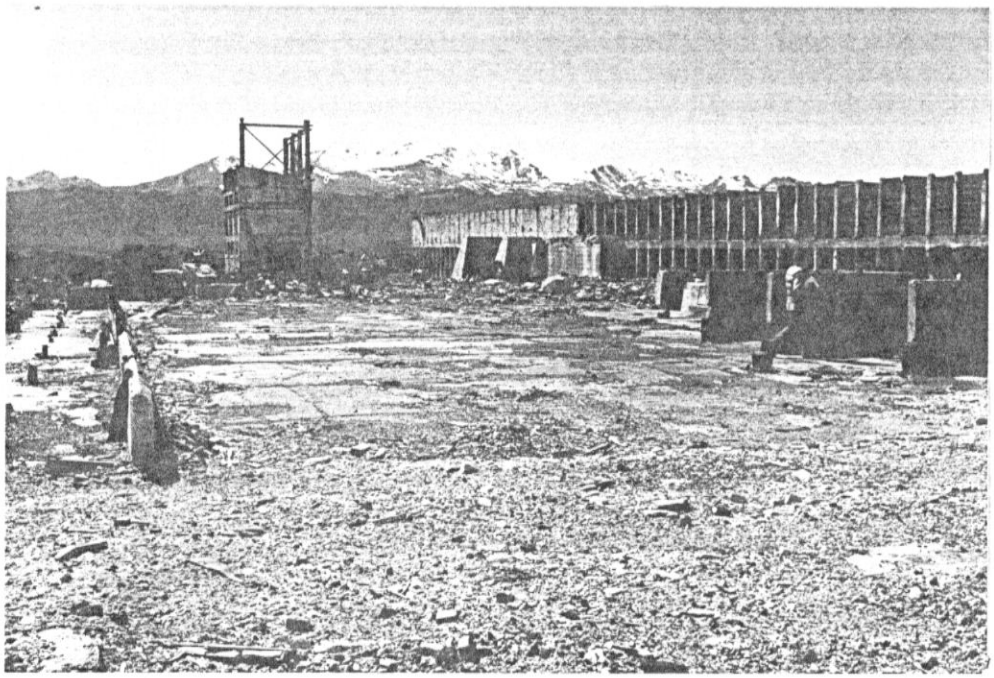
5LK892. View of Feature 2, exhaust pipes at the baghouse. View looking south.



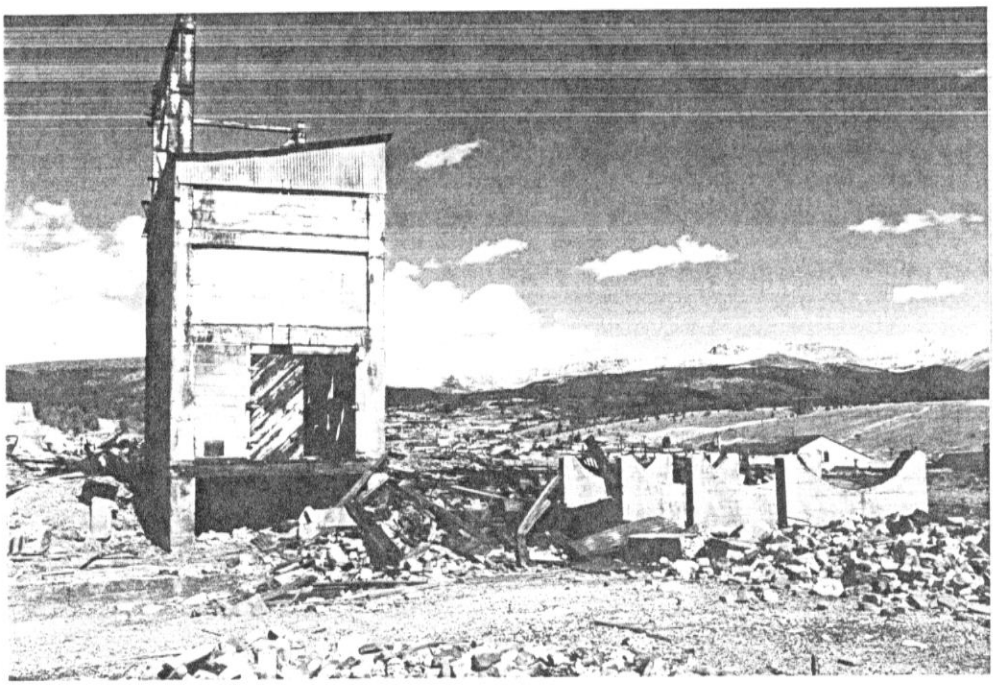
5LK892. View of Feature 2, baghouse wall/flue remains, looking west.



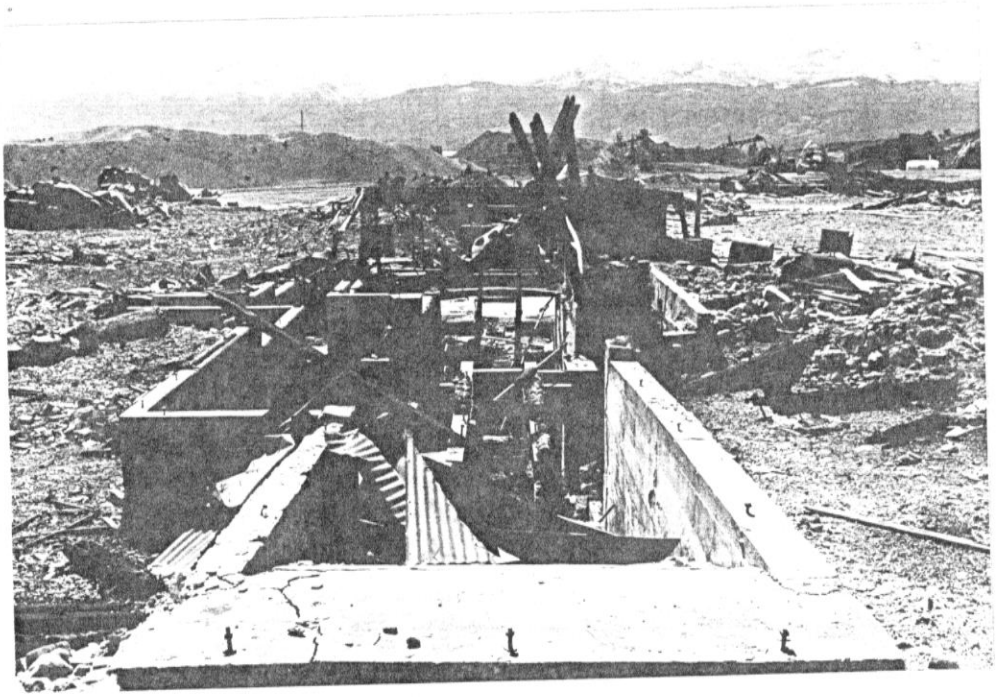
5LK892. View of Feature 2, sheet metal remains of baghouse, looking west.



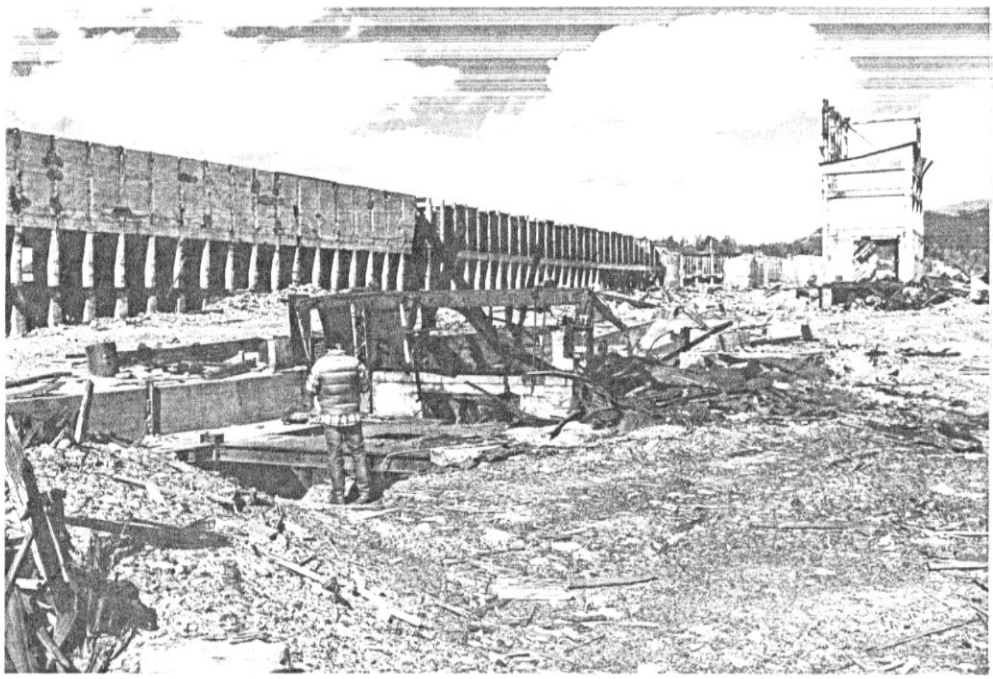
5LK892. View of Feature 3a, roaster furnace area, looking south.



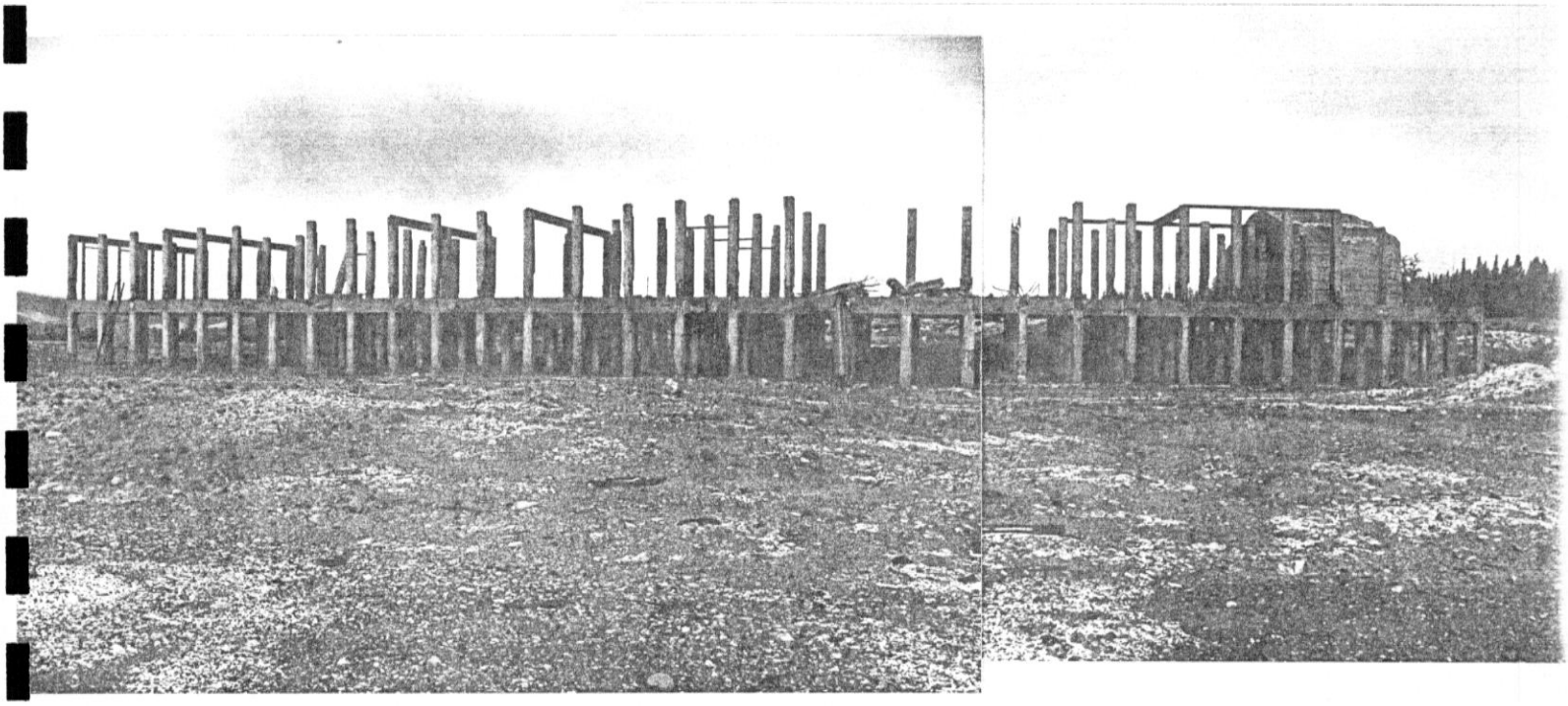
5LK892. View of Feature 3b, unidentified structure, looking east.



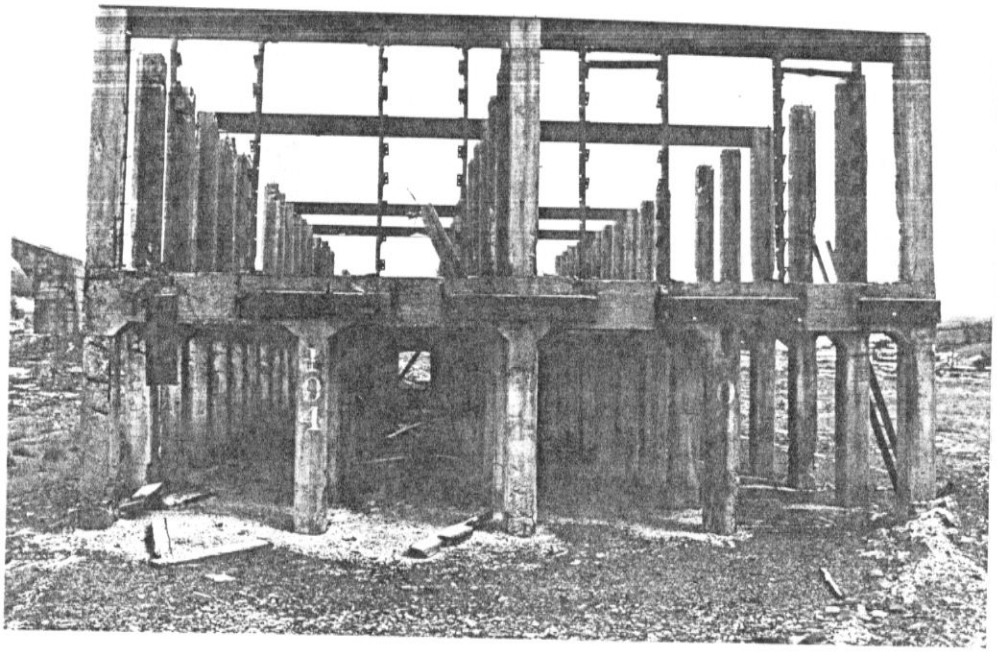
5LK892. View of Feature 3c, mixer, looking south.



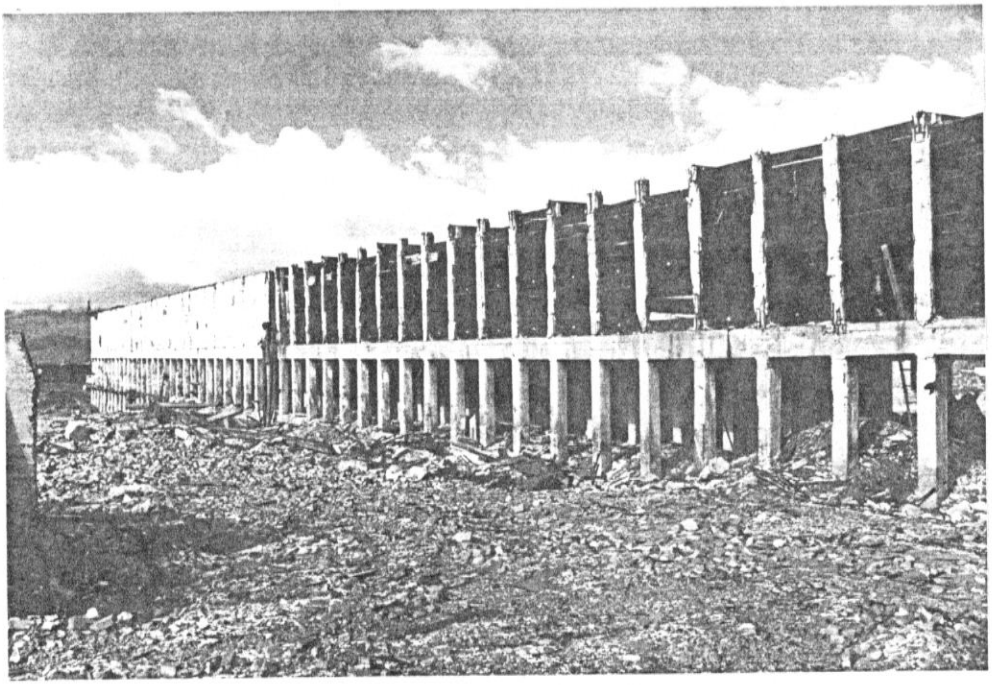
5LK892. View of Feature 3c, mixer, looking northwest.



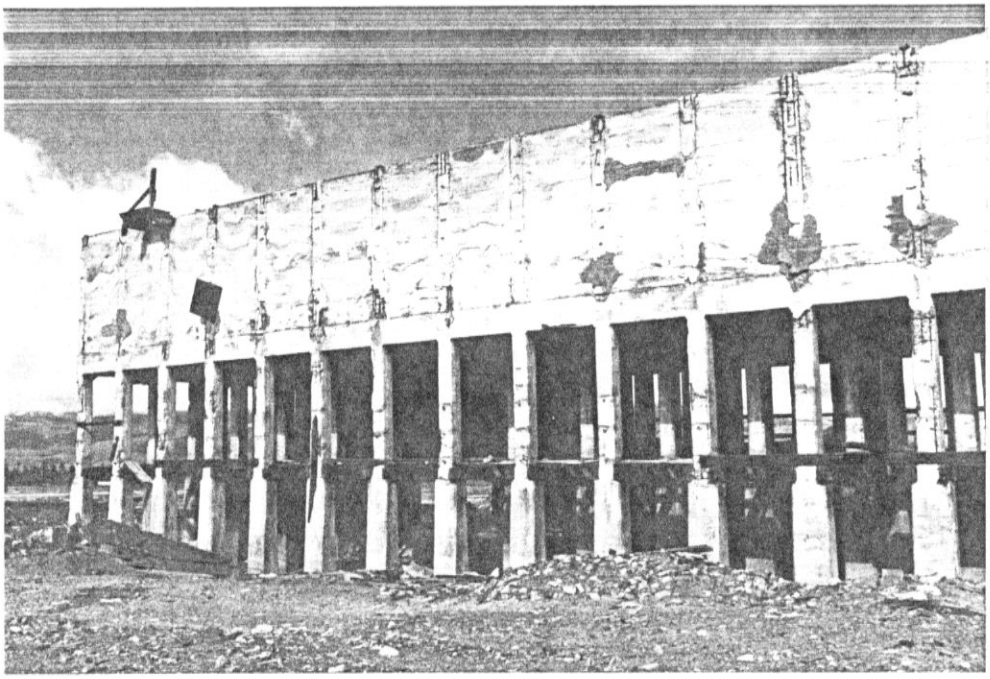
5LK892. View of Feature 4a, ore bin, looking west.



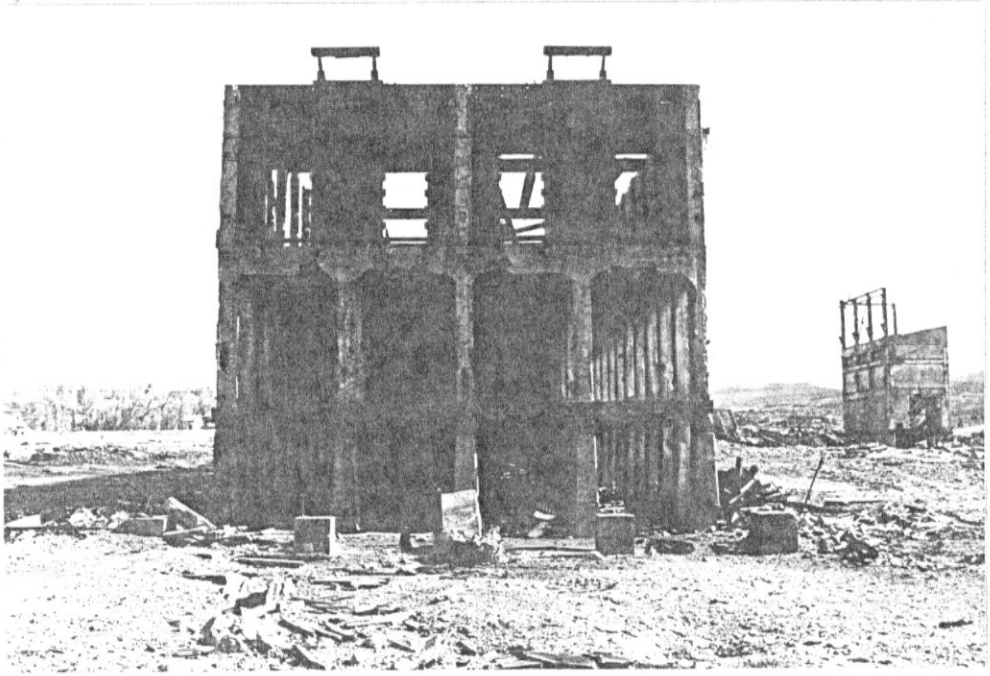
5LK892. Detail view of Feature 4a, south end of ore bin, looking north.



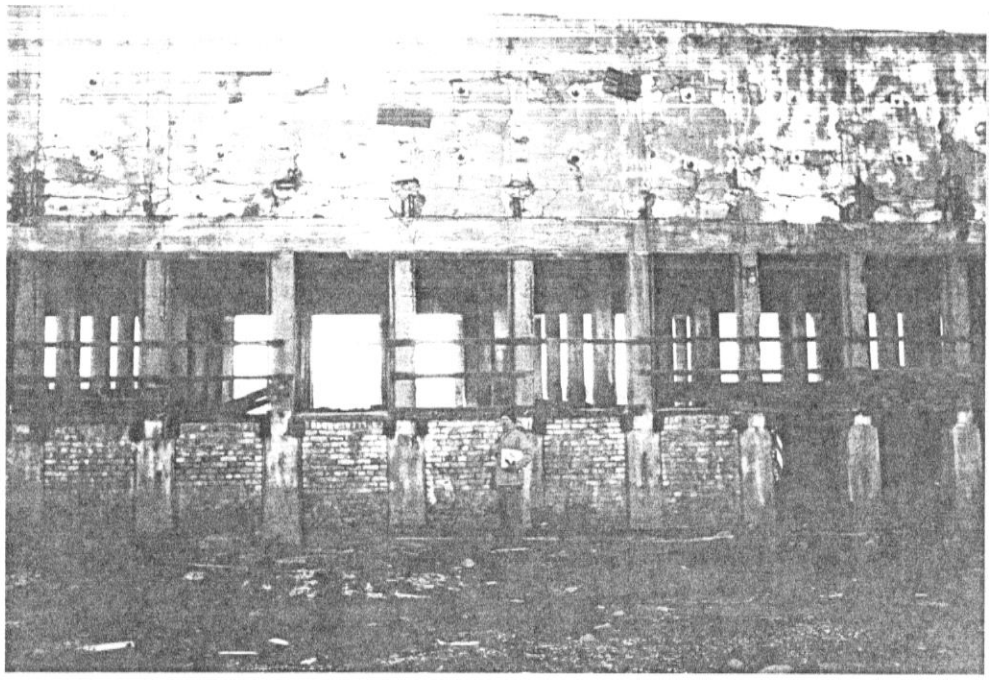
5LK892. View of Feature 4b, ore bin, looking west.



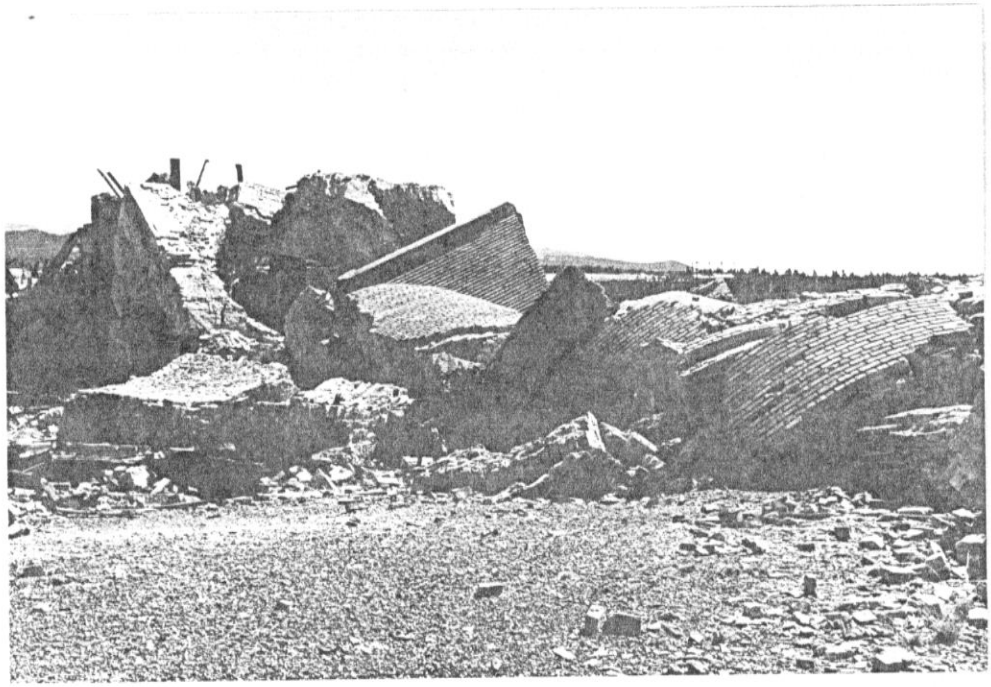
5LK892. Detail view of Feature 4b, ore bin, south end, looking west.



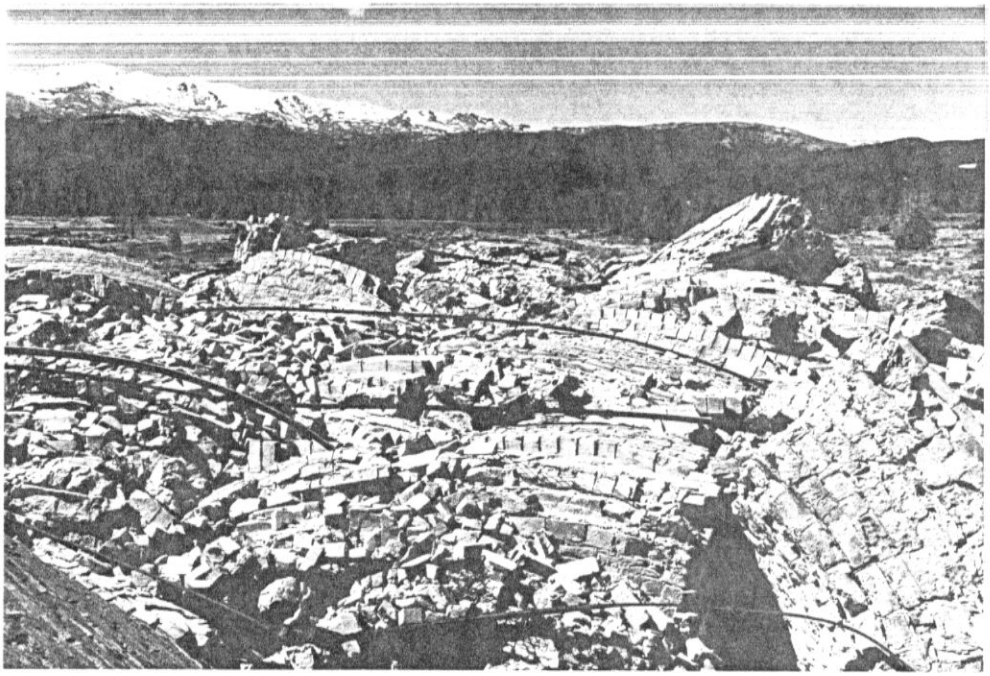
5LK892. Detail view of Feature 4b, ore bin, south end, looking north.



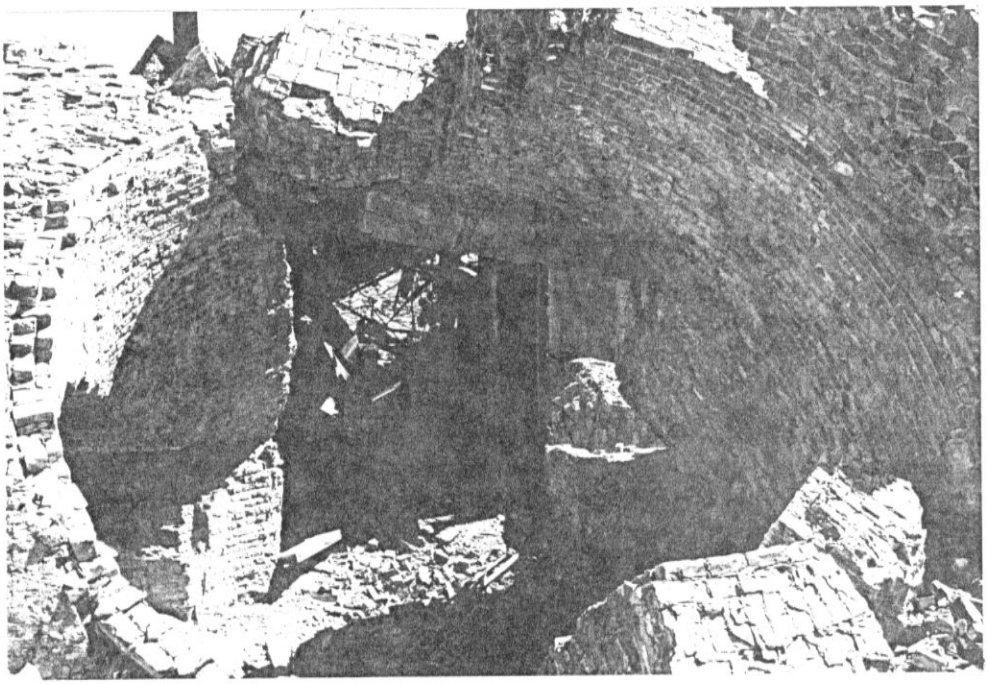
5LK892. Detail view of Feature 4b, ore bin, west exterior wall, looking east.



5LK892. View of Feature 5, stack remains, looking east.

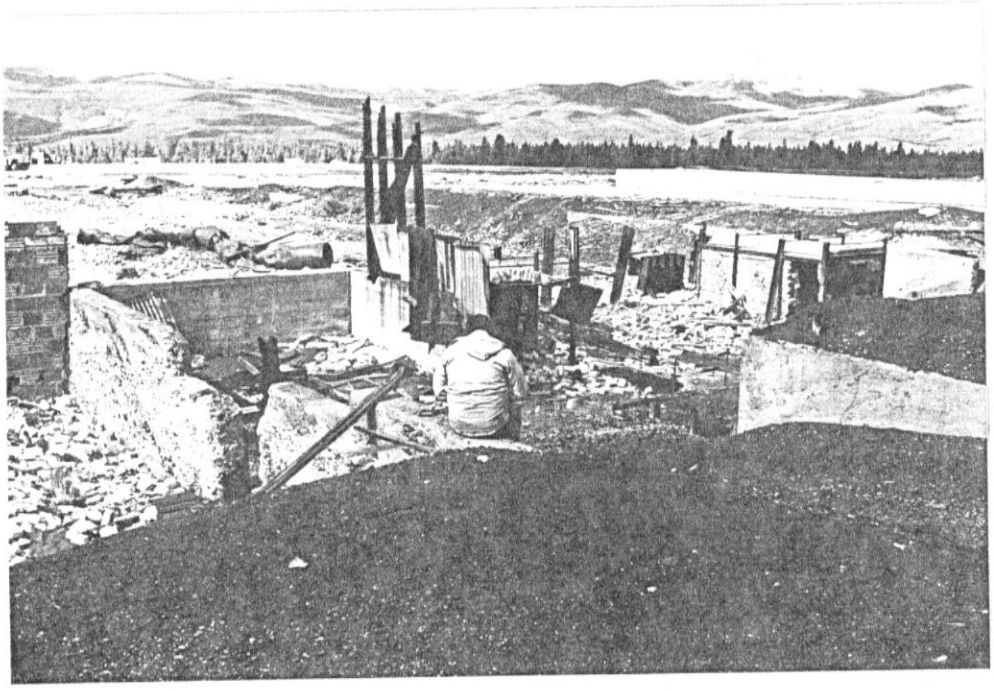


5LK892. Detail view of Feature 5, stack remains, looking west.



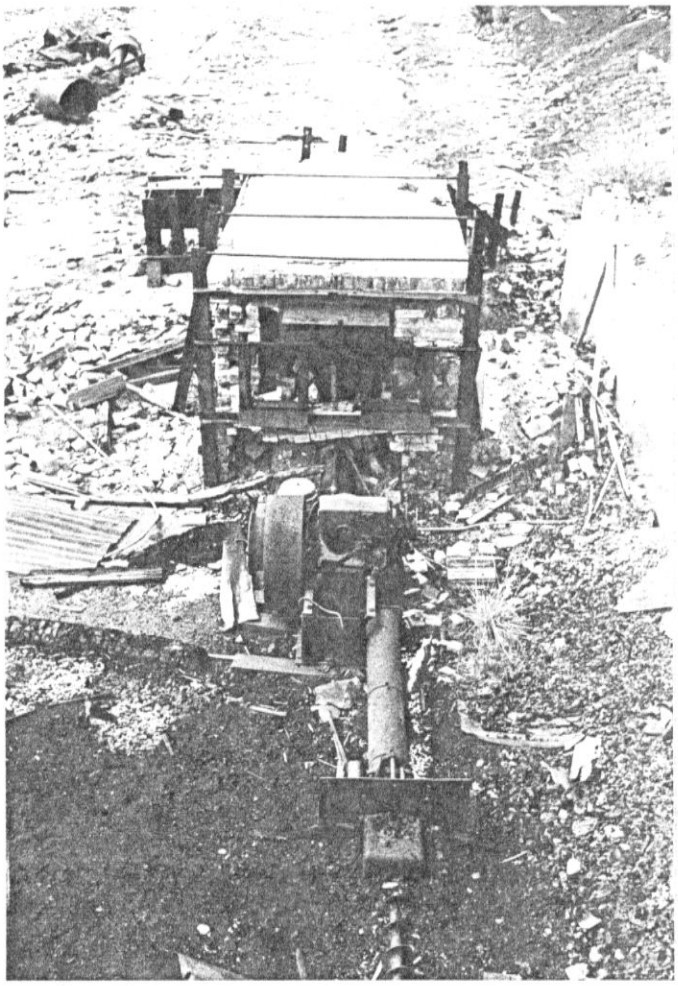
5LK892. View of Feature 5, stack base remains, looking east.

5LK892. Detail view of Feature 5, settling house, looking south.

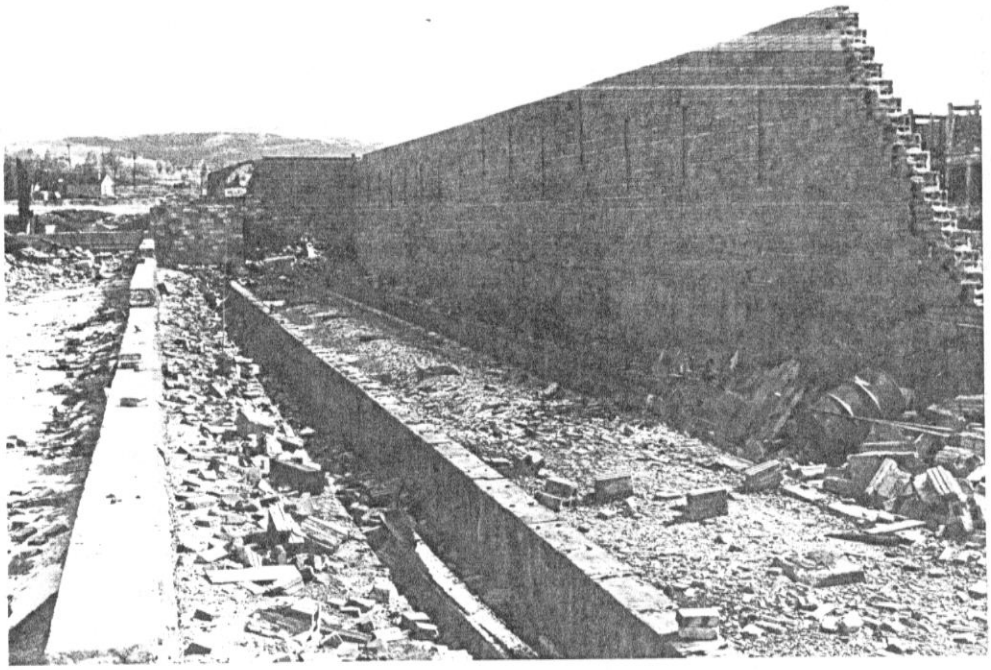


5LK892. View of Feature 6, No.2 Thaw House, looking south.

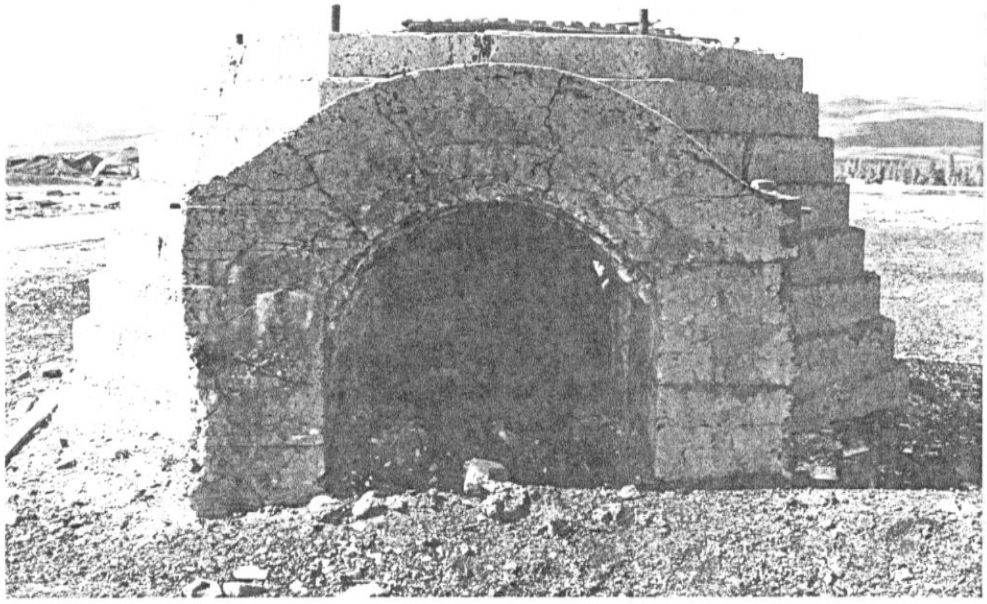
5LK892. Detail view of Feature 6a, heating plant, looking south.



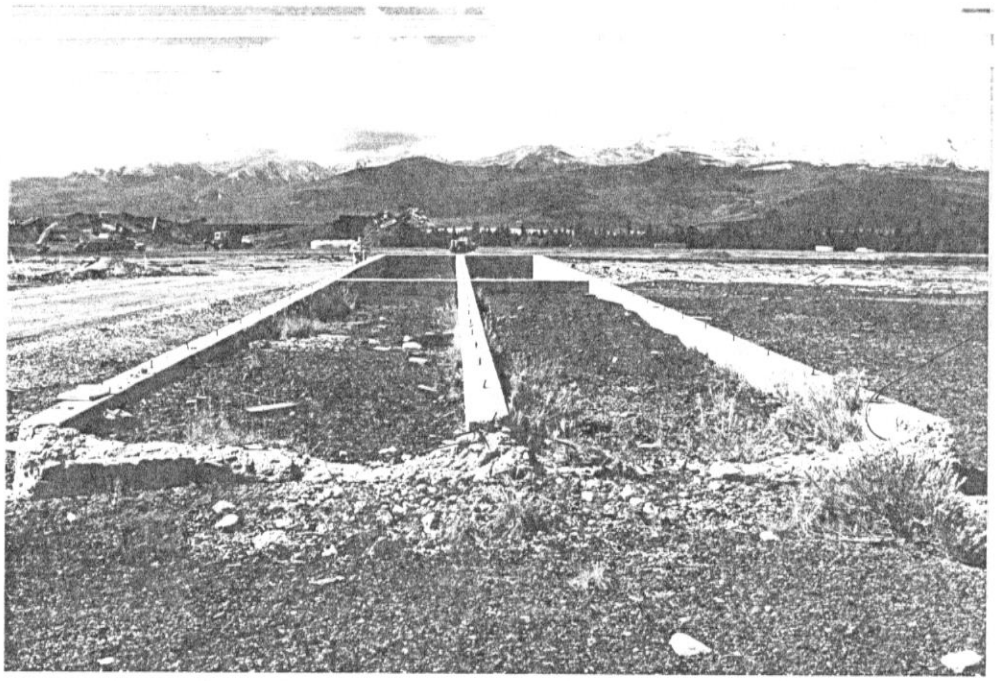
5LK892. View of Feature 6a, heating plant with feeder device, looking south.



5LK892. View of Feature 6, trenches, looking north.

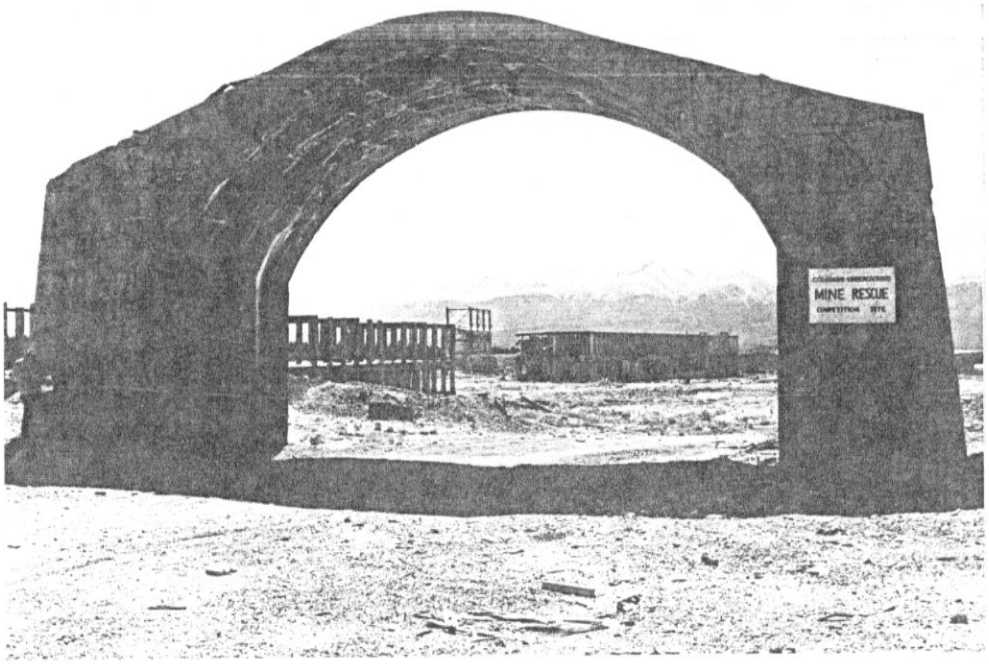


5LK892. View of Feature 6b, stack base, looking south.



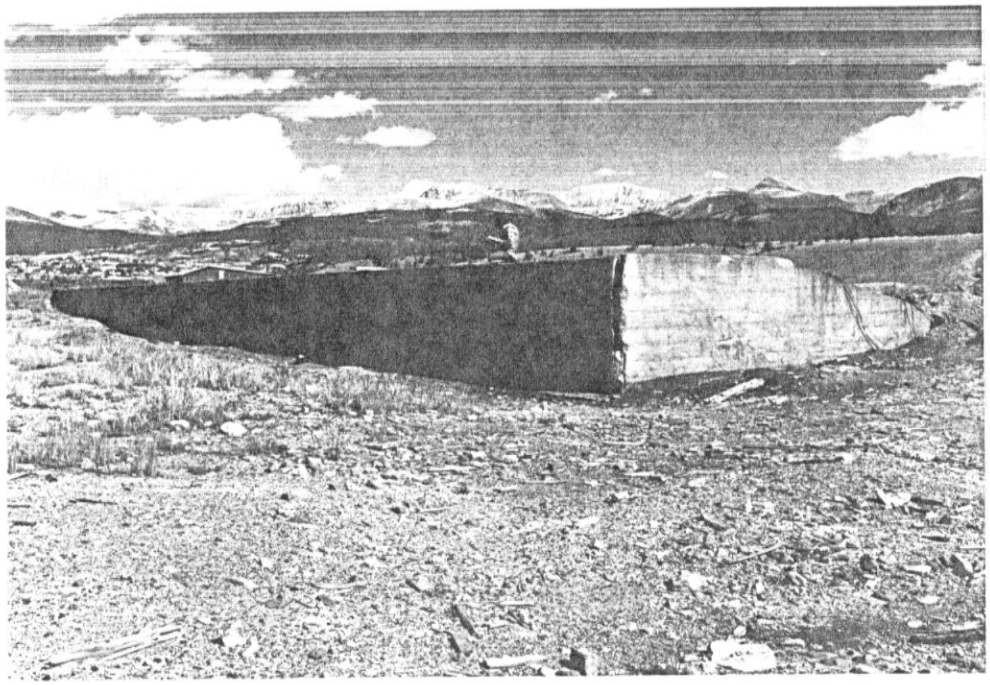
5LK892. Detail view of Feature 6c, concrete foundation, looking south.

5LK892. View of Feature 6d, foundations, looking south.

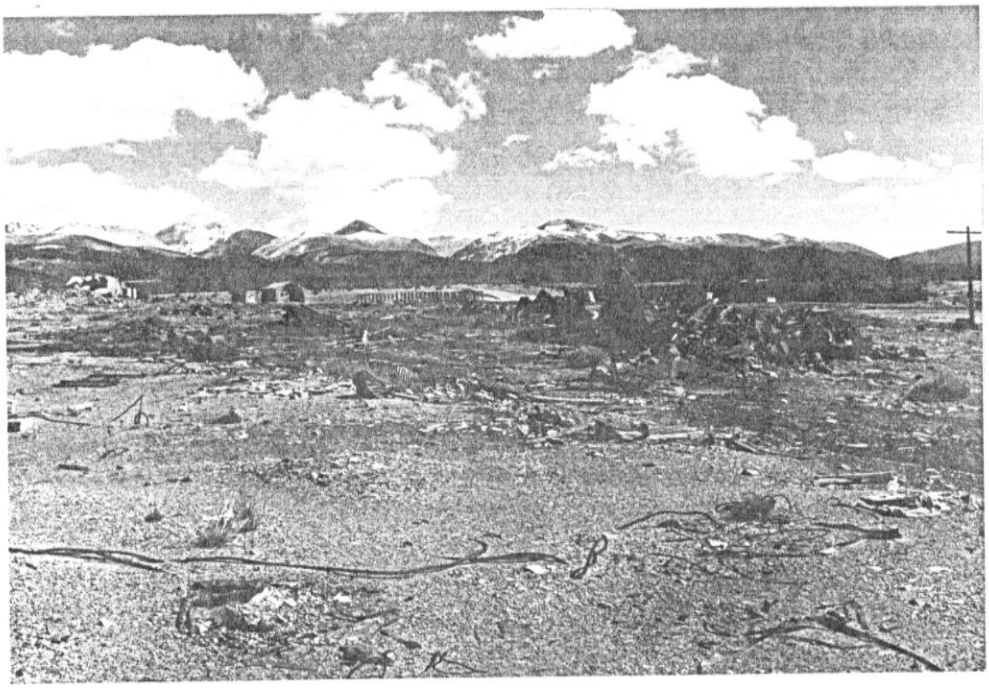


5LK892. View of Feature 7, concrete arch, north side, looking south.

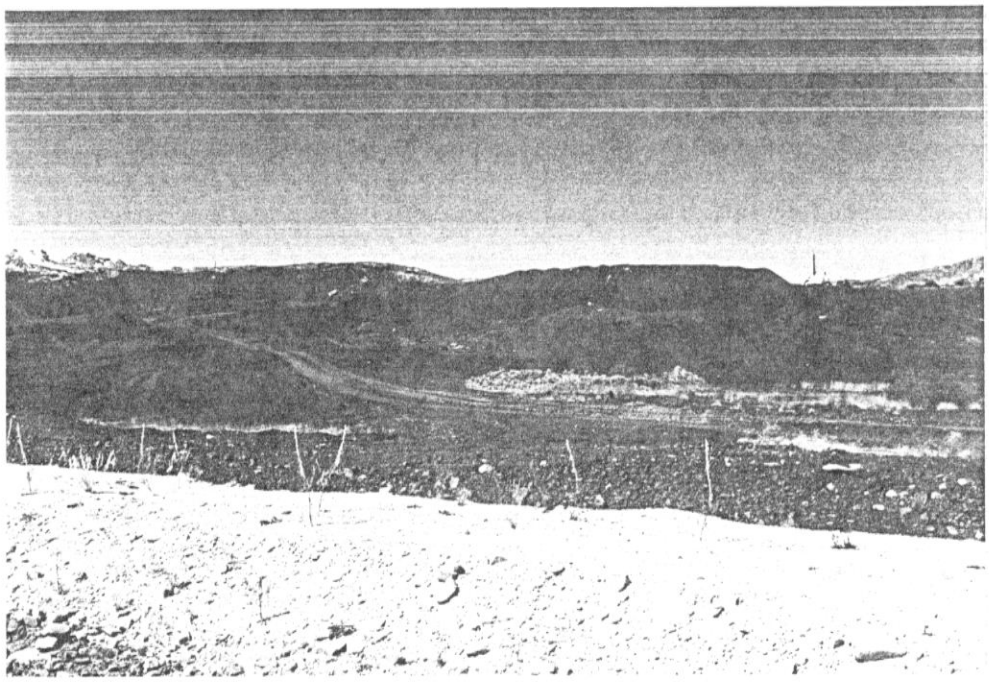
5LK892. View of Feature 8, stack base, looking south.



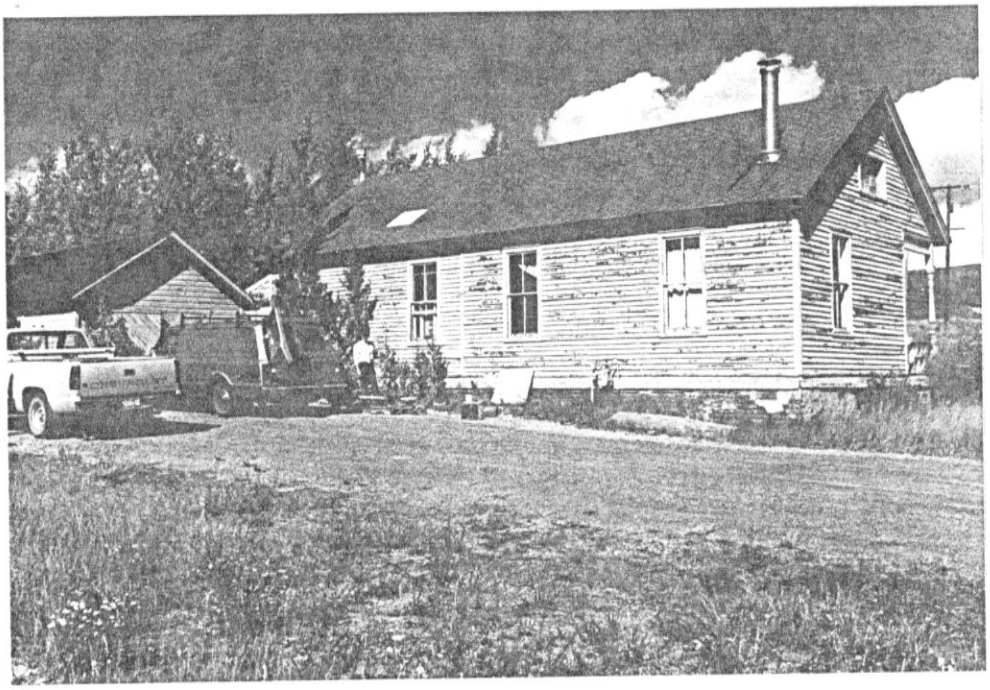
5LK892. View of Feature 9, loading platform, south end, looking east.



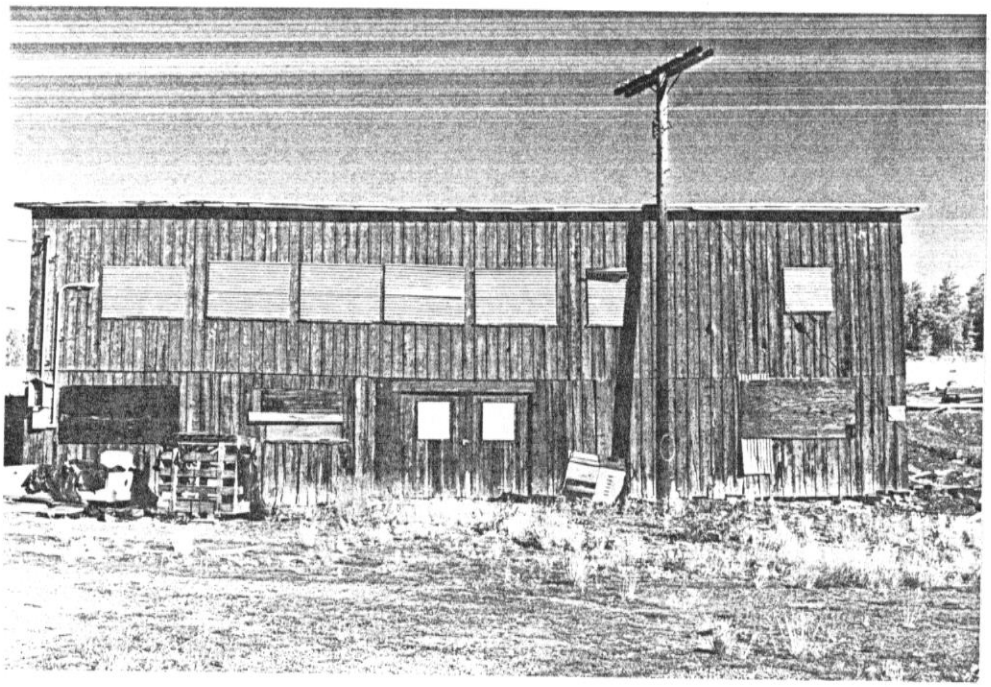
5LK892. View of Feature 10, trash scatter, looking east.



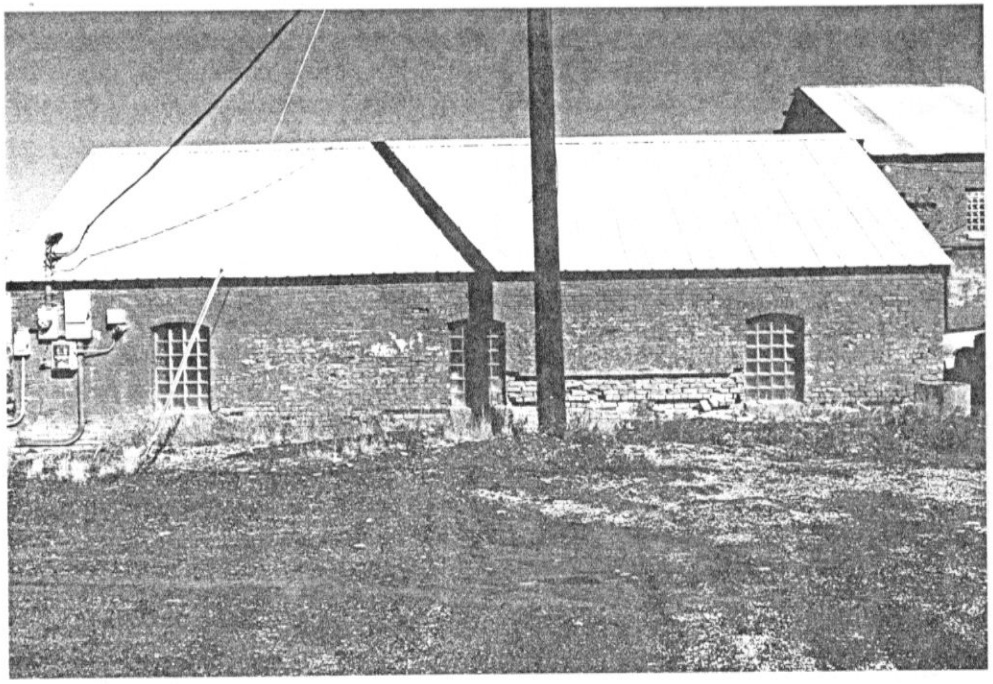
5LK892. View of Feature 11, slag pile, looking west.



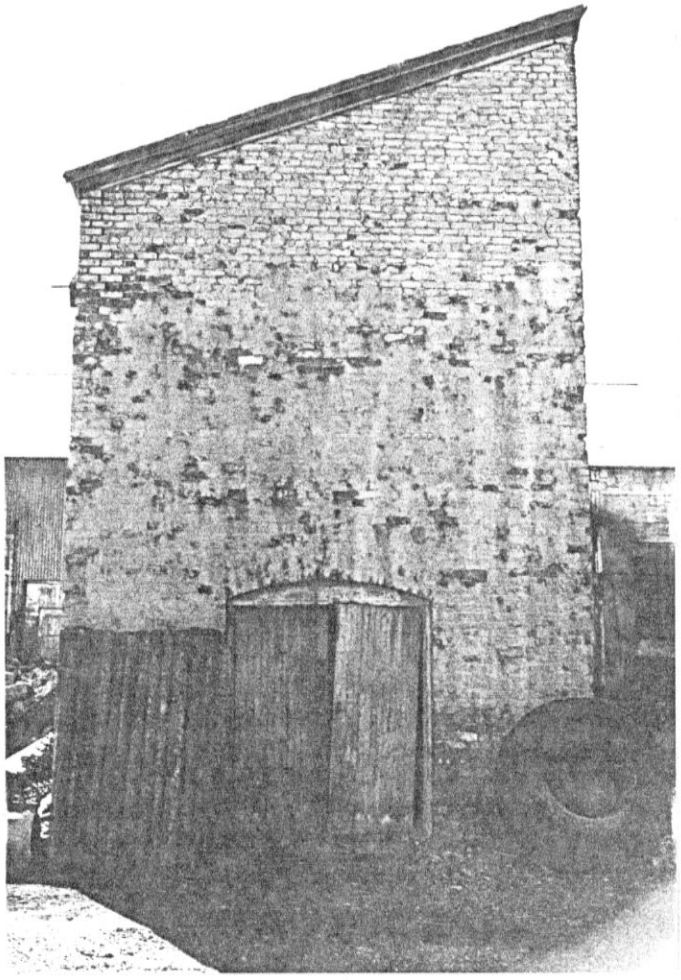
5LK892. View of Feature 12, residential structure, looking north.



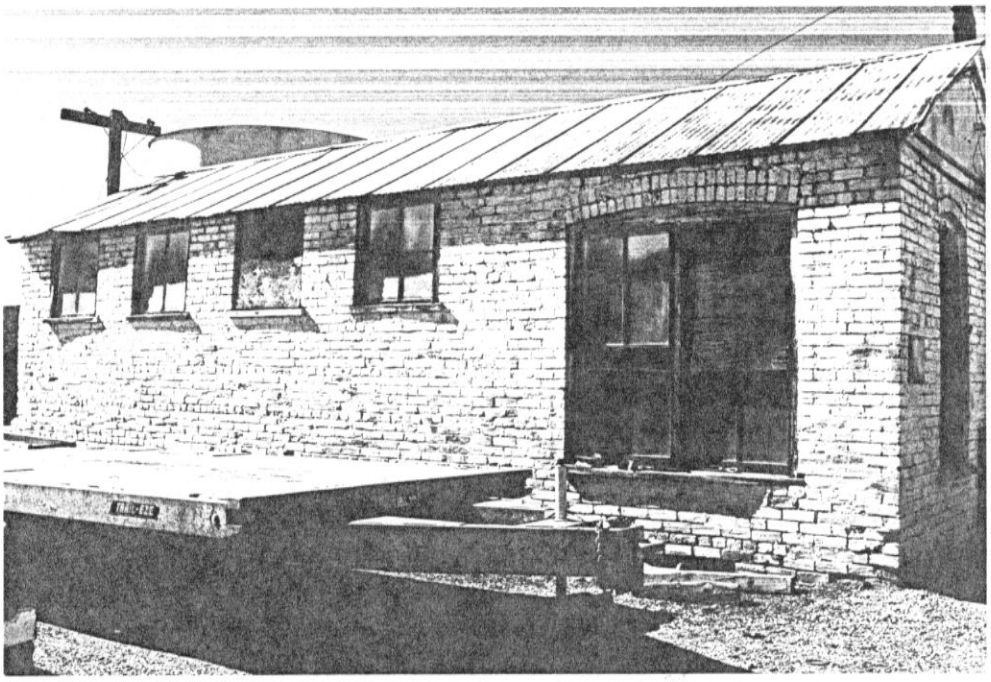
5LK892. View of Feature 13, carpenter's shop, south exterior, looking north.



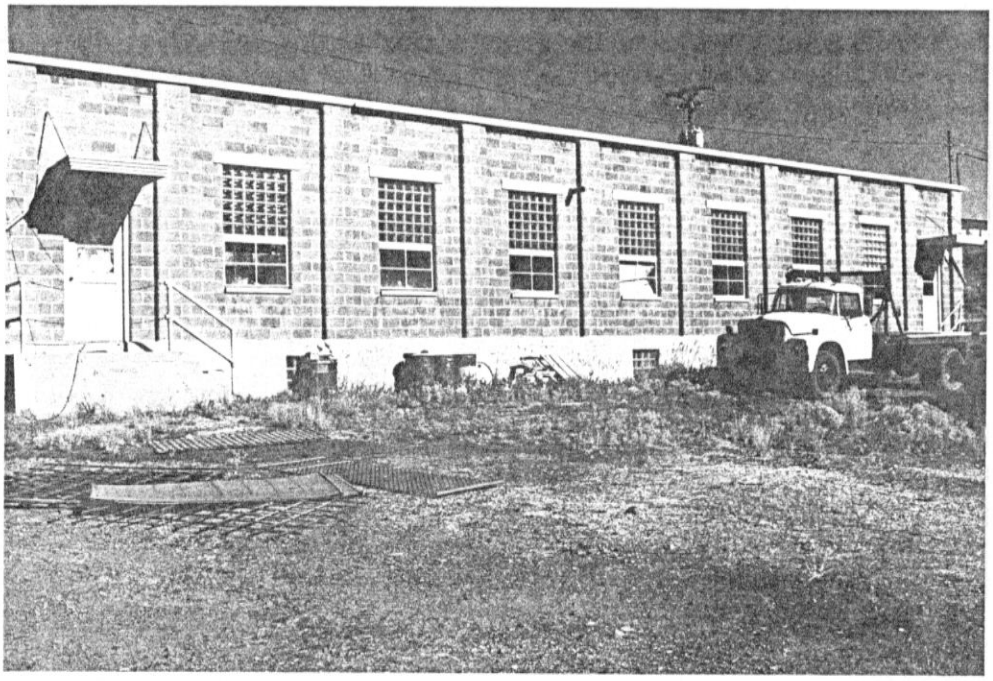
5LK892. View of Feature 14, pumphouse, south exterior, looking north.



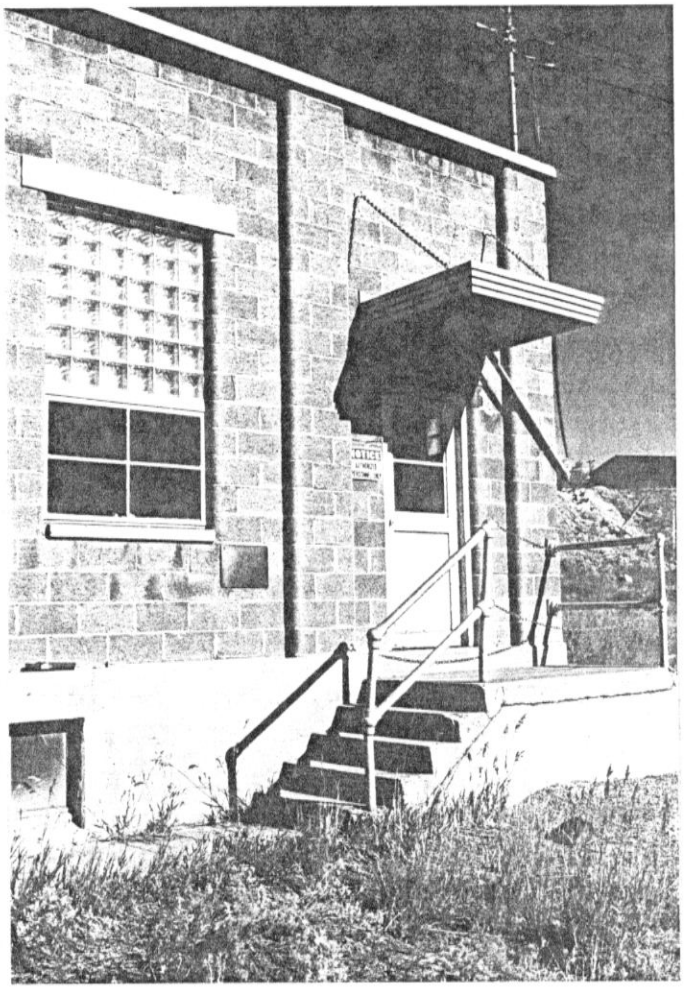
5LK892. View of Feature 15, matte hoist house, west exterior, looking east.



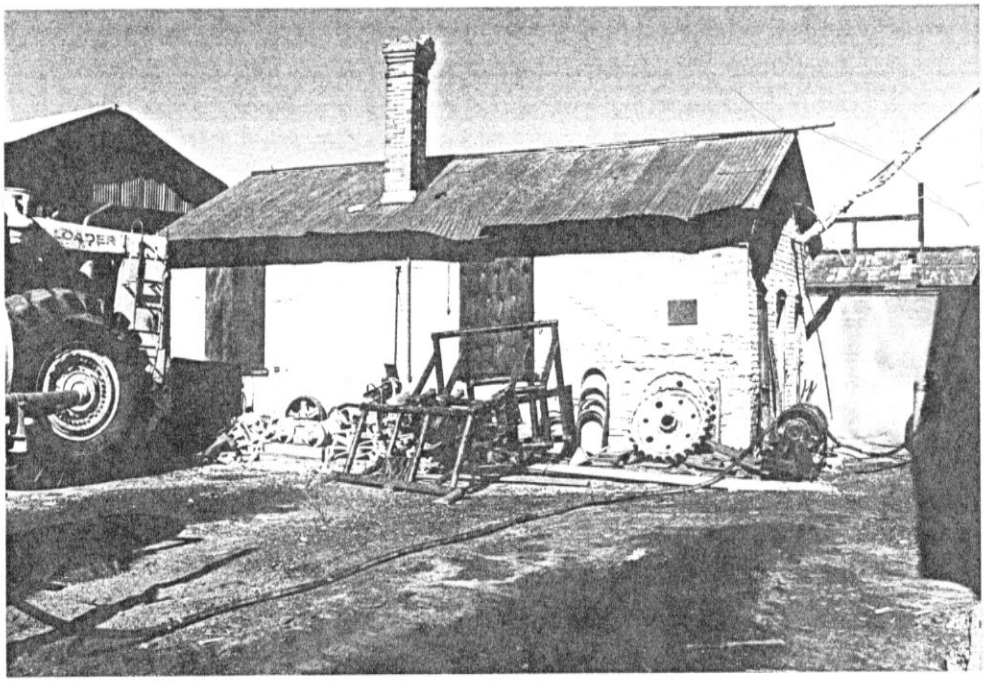
5LK892. View of Feature 16, storage building, east exterior, looking west.



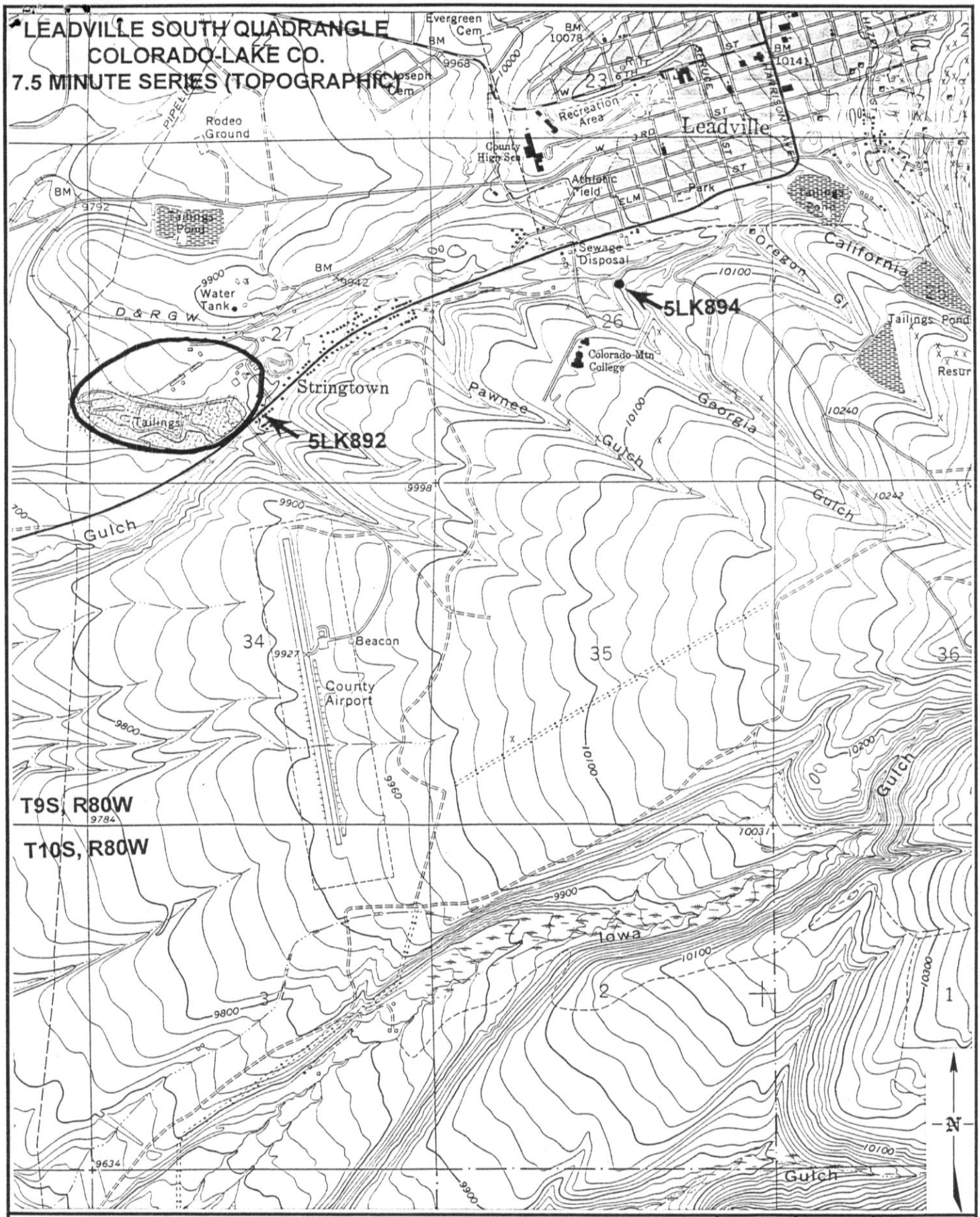
5LK892. View of Feature 17, office/lab, east exterior, looking west.



5LK892. View of Feature 17, detail of northeast corner, showing construction details.



5LK892. View of Feature 18, office, east exterior, looking west.



FOOTHILL ENGINEERING CONSULTANTS, INC.	RESOURCE LOCATION MAP	DATE: 2/96	SCALE: 1:24000	DRAWN BY: USGS

Site_	xcoord	ycoord
5LK.892	385961.0000	4343580.0000
5LK.892	386179.0000	4343410.0000
5LK.892	386007.0000	4343130.0000
5LK.892	385655.0000	4343080.0000
5LK.892	385285.0000	4343350.0000
5LK.892	385520.0000	4343560.0000
5LK.892	385882.0000	4343610.0000

2/26/04

Site Number 5LK.886

Please Note

Some of the items filed with this cultural resource record were not scanned. These items may include:

- Published and copyrighted materials - including newspaper and magazine clippings
- Bound material - including brochures and pamphlets
- Microfiche
- Negatives
- Computer disks or CDs
- Documents
- Items over 17 x 11

These items are stored at the Office of Archaeology and Historic Preservation at the Colorado Historical Society.

STATE INVENTORY FORM

I-2 5LK. G SIR

XXXII-23

5LK886

1) Site Number - picture

2) SITE NAME Malta School Site Threatened _____

ADDRESS E side U.S. 24 just past junction Colo. 300

Lake

T 9S R 80W S 33 ~~SW¼NW¼~~ NE/NW/SW/NW

3) OWNER _____

4) CONDITION excellent _____ good X fair _____ ruins _____

buildings occupied _____ unoccupied X

5) PHYSICAL DESCRIPTION Building has 1 X 2 _____ 3 _____ stories

frame X stone _____ log _____ brick _____ other _____ indicate

painted red w white trim, sm. bell tower, tarpaper roof

6) SIGNIFICANCE Be specific making certain to give date(s). List your sources. If necessary continue on the back.

1902, Dist. 11

13; 383838 mE 4342322 mN

7)

K. Patterson
Name

8614 Yukon, 301 C

Arvada, Co 80005
Address

8AB 5LK.886
Malta School

STATE REGISTER OF HISTORIC PROPERTIES
OWNER CONSENT FORM

Property Name Malta School

Each partial owner must sign a separate form. Photocopy form as needed. All signatures must be notarized.

I Pat Chlouber
(type or print name)

President Lake County School Board
title

certify that ~~I am~~ the school district is the sole owner X /partial owner ___ of the land and property located at

Malta School Hwy. 24
street number street name

Leadville Lake County
city county

and that I hereby give my written consent and approval for this property's nomination to and inclusion in the State Register of Historic Properties.

Pat Chlouber
signature

Subscribed and sworn to before me, in my presence, this 12th day of September, 1995 a Notary Public in and for the (county) (state) of Lake County - Colorado

(seal)

Rebecca Neufeld
Notary Public

OAHP1414 B

FOR OFFICIAL USE Site Number 5LK886
9-14-95 Nomination Received
_____ Determined __Eligible __Not Eligible
_____ Review Board __Approved __Denied
_____ CHS Board __Approved __Denied
Level of Significance: __Natl. __State __Local

COLORADO HISTORICAL SOCIETY

STATE REGISTER OF HISTORIC PROPERTIES

NOMINATION FORM

(Please type)

1. Name of Property

Historic Name Malta School

Current Name Malta School

2. Address of Property State Hwy 24 - Malta Curve
(number) (street)

Leadville (city) Lake (county) 80461 (zip)

3. Legal Description of Property P.M. 6 Township 9S Range 80W

NE 1/4 of NW 1/4 of SW 1/4 of NW 1/4 of Section 33 Quad Map _____

Lot(s) _____ Block _____ Addition _____

UTM Reference: Zone ____ Easting _____ Northing _____

Verbal Boundary Description
(describe the boundaries of the nominated property on a continuation sheet)

4. Present Owner of Property

Name Lake County School District R-1

Address 105 Spruce Phone 719-486-~~0160~~ 6800

City Leadville State CO Zip 80461
(if the property is in multiple ownership, please give the names and addresses of each owner on one or more continuation sheets)

5. Preparer of Nomination

Name Keith Moffett Date Sept. 11, 1995

Organization Lake County School District

Address 105 Spruce Phone 719-486-~~0160~~ 486-6800

City Leadville State CO Zip 80461

15. Significance of Property

Nomination Criteria

_X_ a - property is associated with events that have made a significant contribution to history

____ b - property is connected with persons significant in history

_X_ c - property has distinctive characteristics of a type, period, method of construction or artisan

____ d - property is of geographic importance

____ e - property contains the possibility of important discoveries related to prehistory or history

Areas of Significance

a. Mining and Raid Road Histor _____

b. One Room School Construction _____

_____ _____

_____ _____

16. Significance Statement

(explain the significance of the property on one or more continuation sheets)

17. Bibliography

(cite the books, articles, and other sources used in preparing this form on one or more continuation sheets)

18. Legislative Information

Colorado House District # 61 or Name of Representative Ken Chlouber

Colorado Senate District # 4 or Name of Senator Linda Powers

ADDITIONAL MATERIALS TO ACCOMPANY NOMINATION

19. Sketch Map

20. Photocopy of USGS Map

21. Black & White Photos

22. Color Slides

23. Optional Materials

24. Owner Consent for Nomination

(attach signed and notarized consent from each owner of property - see next page)

Description of the property:

This historic one room school measures approximately 20' x 40'. It is a single story building with belfry complete with bell. Front and rear entrance doors, shuttered windows on north, south and west sides of building.

The interior of the school bears an uncanny resemblence to the attached color photo copy of a one room school. The walls (severely damaged) are lath and plaster with the bottom half covered with wainscotting. The floor is tongue and grooved wood in need of sanding and refinishing. The chimney is still in place, but the pot belly stove has been removed. A small shed and outhouse are located on the south side of the building. A small wood sign hangs above the dooor indicating 1902 and the date of construction.

The foundation is brick and mortar. The rest of the building is wood structure, windows, lath and plaster.

Alterations to the property:

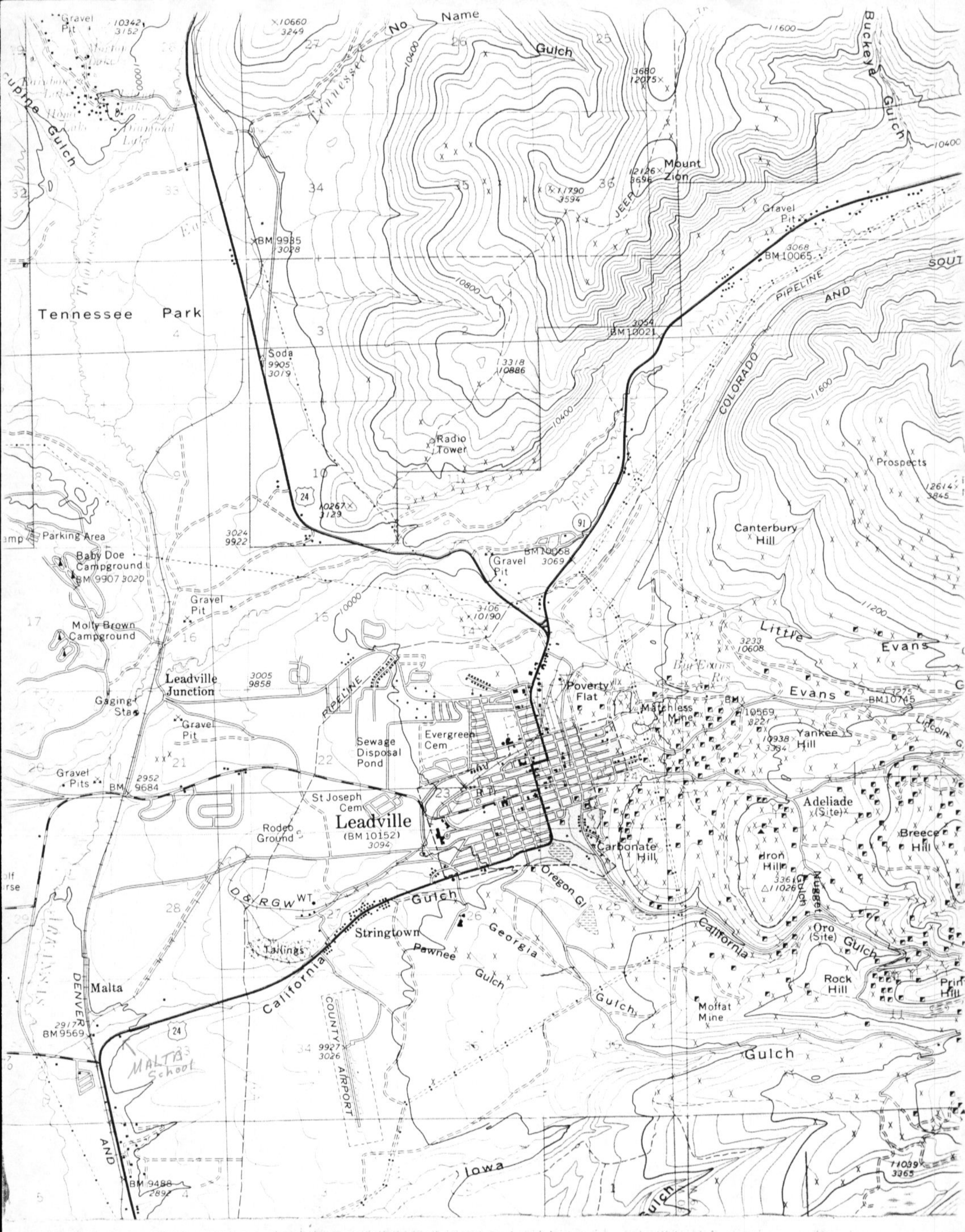
All indications point to the fact the building has never experienced any alterations or modifications. The exterior of the building has been repainted a school house red some twenty plus years ago. The pot belly stove and early day school desks are no longer in the building.

Significance of Statement:

Little has been written or recorded about the town of Malta. We do know it was a small community with a rail head to accommodate the shipment of ore from the Leadville mines to destinations around the country. The rail head community also provided passenger services for commuters. The one room school was surely an integral part of the community. The school is the only remaining historic building in the township.

The only thing we can be sure of is the fact the school was built in 1902. It is still standing and in fair condition with some assistance from the State Historical Society the structure can be preserved to near original condition and used as an education tool for present and future generations.

If the property is not listed and repairs are not forthcoming, the school will continue to deteriorate and eventually have to be razed.


No Name Gulch
Buckeye Gulch
Mount Zion
Tennessee Park
Soda
Radio Tower
Gravel Pit
Parking Area
Baby Doe Campground
Molly Brown Campground
Leadville Junction
Gaging Sta
Gravel Pits
Pipeline
Sewage Disposal Pond
Evergreen Cem
St Joseph Cem
Rodeo Ground
Leadville
(BM 10152)
Poverty Flat
Matchless Mine
Little Evans
Evans
Yankee Hill
Canterbury Hill
Prospects
Colorado
Pipeline
Adeliade (Site)
Breece Hill
Carbonate Hill
Iron Hill
Oro (Site)
Rock Hill
Oregon Gl
California Gulch
Georgia Gulch
Pawnee Gulch
Stringtown
Tailings
D&RGW
Malta
Denver
County Airport
Moffat Mine
Gulch
Iowa Gulch
MALTA School

Notification List
State Register Review Board
December 1, 1995

Property:
Malta School (5LK886)
Colo. Hwy. 24
Leadville

REQUIRED NOTIFICATIONS

1. Owner:
Lake County School District R-1
105 Spruce
Leadville, CO 80461

Phone: 719-486-0160

2. Preparer:
Keith Moffett
Lake County School District
105 Spruce
Leadville, CO 80461
Phone:

3. County Commissioners
James Martin
Commission Chair
Lake County Commissioners
505 Harrison Avenue
Leadville, CO 80461

4. Mayor/Council
N/A

OPTIONAL NOTIFICATIONS

1. Colo. House:
Ken Chlouber

2. Colo. Senate:
Linda Powers

3. Local Historical Society:

COLORADO
HISTORICAL
SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

October 3, 1997

Eleanor Kuhns
11597 Highway 24 South
Leadville, COo 80461

RE: Little Red Schoolhouse, Malta, Lake County and Twin Lakes Schoolhouse, Lake County
5LK586 (? 5LK41 District)

Dear Ms. Kuhns:

Thank you for your recent inquiry concerning historic designation programs administered by the Colorado Historical Society's Office of Archaeology and Historic Preservation. Our office maintains a state inventory of historic properties as well as programs for the State Register of Historic Properties and the National Register of Historic Places. We currently do not have any information on this property in our files. In order for us to evaluate the property for eligibility to the State or National Register, we need you to complete the enclosed Historic Building Inventory Record and check your nomination preference on the attached sheet. You may also request material on other programs administered by our office.

We have enclosed information and the criteria for the State and National Registers. A property must meet one or more of the criteria to be eligible for listing in either of the Registers. Please be specific in describing how your property meets the criteria and why it is significant. Use additional pages if necessary.

Please return the completed inventory form with clear photographs of the building or structure as well as a map indicating the location of the property. Once you have submitted this material to us, we will evaluate the property to determine if it appears to be eligible for nomination. If it is eligible, we will send you the necessary State or National Register nomination materials. We appreciate your interest in historic preservation. If we can be of further assistance, please contact our office at (303) 866-3392.

Sincerely,

Jeanne Conway

Jeanne Conway
Administrative Assistant

Enclosures

7/11/96

(719) 486-0160

7/10/96

Annie Butler
P.O. Box 977
Leadville CO
80461

Contacted

Unconnon - hold
Rydd ✓ on Friday
Plemmer
Capital Life

Malta School

Serving on
School District
Committee to
approve

Workshop

SHF Grant

Disks → National State

Mailed 7/12
Rusty put her on Workshop list

8/28/96 Left message for Annie to call about progress

9/16/96 They will try to meet 2/14/97 mailing deadline — Bond election in Nov taking time & resources

To Suzanne

Date 11/28 Time 8:45 ☒ AM ☐ PM

WHILE YOU WERE OUT

M Holly

of

Phone (____) _____
Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU	X	URGENT	
RETURNED YOUR CALL			

Message

Re: Malta Schoolhouse
+ Keith Moffett
(719) 486-0160

reorder 23-700 Operator H

AMPAD

Green Cycle™ RECYCLED PAPER

Grant 2/15/90 →

Dale

4/W

Keith on 12/4/95

He doesn't think he can get info by 12/15. He wants us to keep nomination on file for May 1996 meeting

Suzanne

Keith Moffett
(719) 486-0160.
called 11/14

He will be resubmitting material by 12/1.
Probably will also submit SHF application for February round

Susanne

COLORADO
HISTORICAL
SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

DATE: October 3, 1995

TO: Keith Moffett

SUBJECT: State Register of Historic Properties Nomination - Malta School

I am enclosing the material on the Cherry Creek School and the Doyleville Schoolhouse that should help you in providing us with the additional information we will need on the Malta School property.

Please keep me advised as to your progress. I will be glad to help you with any questions you might have.

Suzanne Doggett

Suzanne Doggett
Researcher
(303) 866-4684

COLORADO PRESERVATION NEEDS ASSESSMENT

Congressional District #: 5

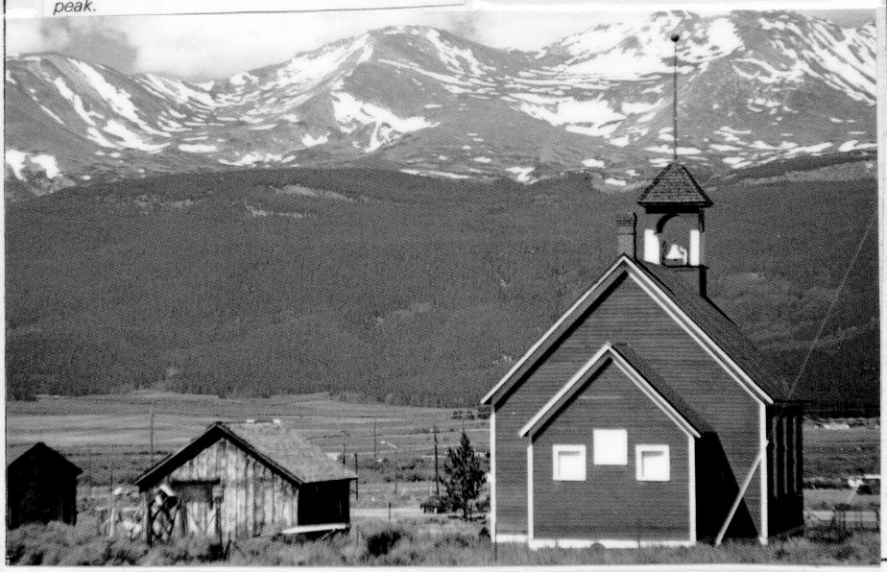
5LK.886

PROPERTY NAME: Malta School House

LOCATION: Hwy. 24 S. & Hwy. 300
Leadville, Colorado 80461

OWNER and ADDRESS: County of Lake
Lake County Courthouse
Leadville, Colorado 80461

IF ENTERED ON THE NATIONAL REGISTER, EITHER INDIVIDUALLY OR AS PART OF A DISTRICT, GIVE NAME UNDER WHICH PROPERTY IS LISTED:



MOUNT MASSIVE and old historic schoolhouse in LEADVILLE, COLORADO. The school was built in 1902 for District 11. Mount Massive, elevation 14,421 is Colorado's second highest peak.

PROPERTY STATUS

OWNERSHIP: [ ] Private [X] Public [ ] Private Non-Profit

USE: [ ] Income-producing [X] Non Income-producing

PROTECTION: Is the property under legal protection such as easements or a local historic district ordinance? [ ] YES [X] NO

PROPERTY NEEDS

[X] Construction Project [X] Non-Construction Project

DESCRIBE PROJECT AND NEED (Include current condition, nature of threat(s) to the property, work items, products of project and benefits to the community):

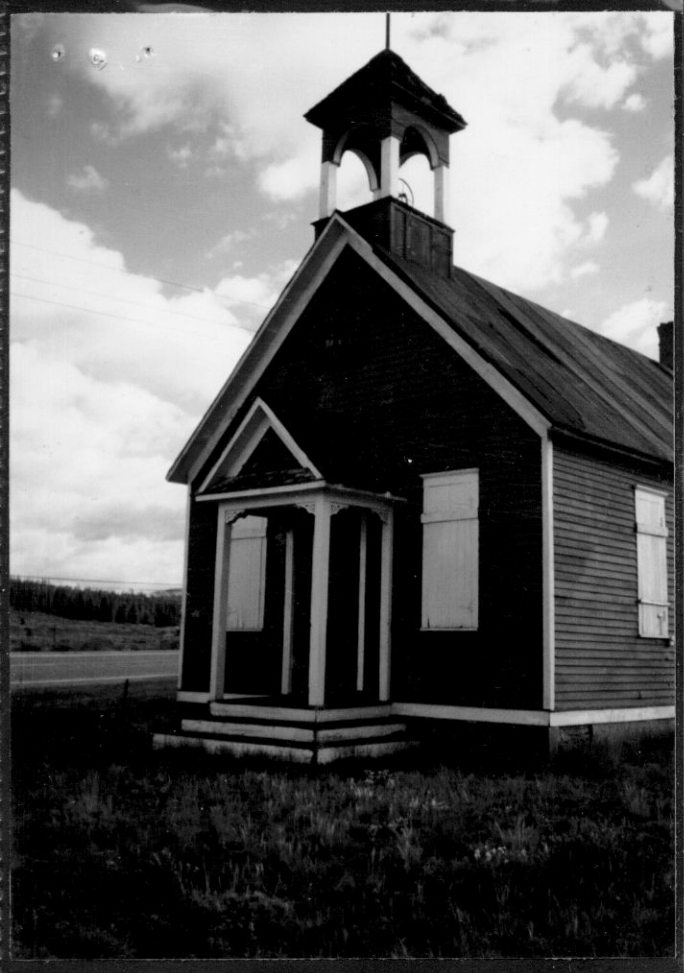
The structure needs structural repairs and refurbishing. Then, instead of allowing it to stand vacant and abandoned, it needs to be put to some good use, such as tourist information center, museum, crafts or antique store, or other use compatible with its historic and unusual nature. Benefit: giving new life to an historic structure while generating some kind of income.

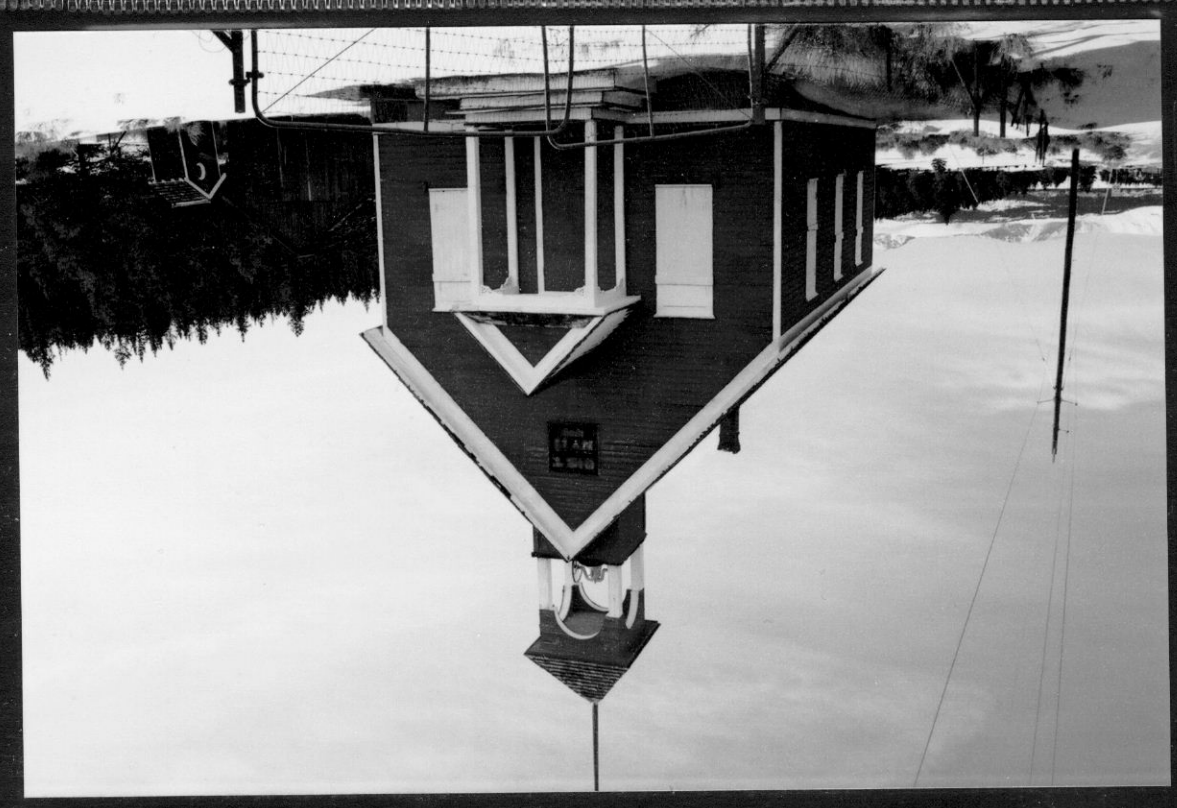
ESTIMATED TOTAL PROJECT COST: $ possibly as high as $50,000 or more

FOR MORE INFORMATION CONTACT: Lake County Commissioners TELEPHONE: 719-486-0993

Date this form prepared: 3/12/88

Please return this form to Colorado Preservation Inc., P.O. Box 843, Denver, CO 80201.





APPENDIX 13-9

COLORADO DEPARTMENT OF TRANSPORTATION - HIGHWAY ACCESS PERMIT

According to a phone call with Brian Killian at the Colorado Department of Transportation on January 14th 2020, the access permit transfers with the land as long as the land use remains the same. Same requirements stated in the permit apply to the new landowner.

COLORADO DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ACCESS PERMIT

PD KJ

CDOT Permit No. **311081**

State Highway No/Mp/Side: 024 A / 178.800 / R

Permit fee	Date of transmittal	Region/Section/Patrol	Local Jurisdiction
$100.00	10/7/2011	3 / 02 / 22-2 Mark Lacome	Lake County

The Permittee(s);

Constructive Investments, LLC
Holly Michael
6200 S Vivian Street
Littleton, CO 80127
303-947-7837

Applicant:

Union Milling Company, LLC
Holly Michael
6200 S Vivian Street
Littleton, CO 80127
303-947-7837

Ref No.:

is hereby granted permission to have an access to the state highway at the location noted below. The access shall be constructed, maintained and used in accordance with this permit, including the State Highway Access Code and any attachments, terms, conditions and exhibits. This permit may be revoked by the issuing authority if at any time the permitted access and its use violate any parts of this permit. The issuing authority, the Department and their duly appointed agents and employees shall be held harmless against any action for personal injury or property damage sustained by reason of the exercise of the permit.

Location: 13815 Highway 24.

Access to Provide Service to:

(Land Use Code:)	(Size or Count)	(Units)
120 - General Heavy Industrial -Mill Operation	20	DHV
147 - Storage Yard - Lake County Concrete Property	1	ADT

Additional Information:

Allen K and Barbara J. Phillips, PO Box 1777, Leadville, CO 80461 are additional Permittees on the permit

MUNICIPALITY OR COUNTY APPROVAL

Required only when the appropriate local authority retains issuing authority.

Signature	Print Name	Title	Date

Upon the signing of this permit the permittee agrees to the terms and conditions and referenced attachments contained herein. All construction shall be completed in an expeditious and safe manner and shall be finished within 45 days from Initiation. The permitted access shall be completed in accordance with the terms and conditions of the permit prior to being used.

The permittee shall notify Marc Quintana with the Colorado Department of Transportation in Grand Junction, Colorado at (719) 486-2044, at least 48 hours prior to commencing construction within the State Highway right-of-way.

The person signing as the permittee must be the owner or legal representative of the property served by the permitted access and have full authority to accept the permit and its terms and conditions.

Permittee Signature	Print Name	Date
Holly Michael Allen K Phillips	Holly Michael Allen K Phillips	10-7-11 10-7-2011
Barbara J. Phillips	Barbara J. Phillips	10-7-2011

This permit is not valid until signed by a duly authorized representative of the Department.
COLORADO DEPARTMENT OF TRANSPORTATION

Signature	Print Name	Title	Date (of issue)
	Daniel Rowson	Permit Manager	10-13-2011

Copy Distribution: Required: 1.Region 2.Applicant 3.Staff Access Section 4.Central Files. Make copies as necessary for: Local Authority MTCE Patrol Inspector Traffic Engineer

Previous editions are obsolete and may not be used

The following paragraphs are excerpts of the State Highway Access Code. These are provided for your convenience but do not alleviate compliance with all sections of the Access Code. A copy of the State Highway Access Code is available from your local issuing authority (local government) or the Colorado Department of Transportation (Department). When this permit was issued, the issuing authority made its decision based in part on information submitted by the applicant, on the access category which is assigned to the highway, what alternative access to other public roads and streets is available, and safety and design standards. Changes in use or design not approved by the permit or the issuing authority may cause the revocation or suspension of the permit.

APPEALS

1. Should the permittee or applicant object to the denial of a permit application by the Department or object to any of the terms or conditions of a permit placed there by the Department, the applicant and permittee (appellant) have a right to appeal the decision to the [Transportation] Commission [of Colorado]. To appeal a decision, submit a request for administrative hearing to the Transportation Commission of Colorado within 60 days of transmittal of notice of denial or transmittal of the permit for signature. Submit the request to the Transportation Commission of Colorado, 4201 East Arkansas Avenue, Denver, Colorado 80222-3400. The request shall include reasons for the appeal and may include changes, revisions, or conditions that would be acceptable to the permittee or applicant.

2. Any appeal by the applicant or permittee of action by a local issuing authority shall be filed with the local authority and be consistent with the appeal procedures of the local authority.

3. In submitting the request for administrative hearing, the appellant has the option of including within the appeal a request for a review by the Department's internal administrative review committee pursuant to [Code] subsection 2.10. When such committee review is requested, processing of the appeal for formal administrative hearing, 2.9(5) and (6), shall be suspended until the appellant notifies the Commission to proceed with the administrative hearing, or the appellant submits a request to the Commission or the administrative law judge to withdraw the appeal. The two administrative processes, the internal administrative review committee, and the administrative hearing, may not run concurrently.

4. Regardless of any communications, meetings, administrative reviews or negotiations with the Department or the internal administrative review Committee regarding revisions or objections to the permit or a denial, if the permittee or applicant wishes to appeal the Department's decision to the Commission for a hearing, the appeal must be brought to the Commission within 60 days of transmittal of notice of denial or transmittal of the permit.

PERMIT EXPIRATION

1. A permit shall be considered expired if the access is not under construction within one year of the permit issue date or before the expiration of any authorized extension. When the permittee is unable to commence construction within one year after the permit issue date, the permittee may request a one year extension from the issuing authority. No more than two one-year extensions may be granted under any circumstances. If the access is not under construction within three years from date of issue the permit will be considered expired. Any request for an extension must be in writing and submitted to the issuing authority before the permit expires. The request should state the reasons why the extension is necessary, when construction is anticipated, and include a copy of page 1 (face of permit) of the access permit. Extension approvals shall be in writing. The local issuing authority shall obtain the concurrence of the Department prior to the approval of an extension, and shall notify the Department of all denied extensions within ten days. Any person wishing to reestablish an access permit that has expired may begin again with the application procedures. An approved Notice to Proceed, automatically renews the access permit for the period of the Notice to Proceed.

CONSTRUCTION

1. Construction may not begin until a Notice to Proceed is approved. (Code subsection 2.4]

2. The construction of the access and its appurtenances as required by the terms and conditions of the permit shall be completed at the expense of the permittee except as provided in subsection 2.14. All materials used in the construction of the access within the highway right-of-way or on permanent easements, become public property. Any materials removed from the highway right-of-way will be disposed of only as directed by the Department. All fencing, guard rail, traffic control devices and other equipment and materials removed in the course of access construction shall be given to the Department unless otherwise instructed by the permit or the Department inspector.

3. The permittee shall notify the individual or the office specified on the permit or Notice to Proceed at least two working days prior to any construction within state highway right-of-way. Construction of the access shall not proceed until both the access permit and the Notice to Proceed are issued. The access shall be completed in an expeditious and safe manner and shall be finished within 45 days from initiation of construction within the highway right-of-way. A construction time extension not to exceed 30 working days may be requested from the individual or office specified on the permit.

4. The issuing authority and the Department may inspect the access during construction and upon completion of the access to ensure that all terms and conditions of the permit are met. Inspectors are authorized to enforce the conditions of the permit during construction and to halt any activities within state right-of-way that do not comply with the provisions of the permit, that conflict with concurrent highway construction or maintenance work, that endanger

highway property, natural or cultural resources protected by law, or the health and safety of workers or the public.

5. Prior to using the access, the permittee is required to complete the construction according to the terms and conditions of the permit. Failure by the permittee to abide by all permit terms and conditions shall be sufficient cause for the Department or issuing authority to initiate action to suspend or revoke the permit and close the access. If in the determination of the Department or issuing authority the failure to comply with or complete the construction requirements of the permit create a highway safety hazard, such shall be sufficient cause for the summary suspension of the permit. If the permittee wishes to use the access prior to completion, arrangements must be approved by the issuing authority and Department and included in the permit. The Department or issuing authority may order a halt to any unauthorized use of the access pursuant to statutory and regulatory powers. Reconstruction or improvement of the access may be required when the permittee has failed to meet required specifications of design or materials. If any construction element fails within two years due to improper construction or material specifications, the permittee shall be responsible for all repairs. Failure to make such repairs may result in suspension of the permit and closure of the access.

6. The permittee shall provide construction traffic control devices at all times during access construction, in conformance with the M.U.T.C.D. as required by section 42-4-104, C.R.S., as amended.

7. A utility permit shall be obtained for any utility work within highway right-of-way. Where necessary to remove, relocate, or repair a traffic control device or public or private utilities for the construction of a permitted access, the relocation, removal or repair shall be accomplished by the permittee without cost to the Department or issuing authority, and at the direction of the Department or utility company. Any damage to the state highway or other public right-of-way beyond that which is allowed in the permit shall be repaired immediately. The permittee is responsible for the repair of any utility damaged in the course of access construction, reconstruction or repair.

8. In the event it becomes necessary to remove any right-of-way fence, the posts on either side of the access shall be securely braced with an approved end post before the fence is cut to prevent any slacking of the remaining fence. All posts and wire removed are Department property and shall be turned over to a representative of the Department.

9. The permittee shall ensure that a copy of the permit is available for review at the construction site at all times. The permit may require the contractor to notify the individual or office specified on the permit at any specified phases in construction to allow the field inspector to inspect various aspects of construction such as concrete forms, subbase, base course compaction, and materials specifications. Minor changes and additions may be ordered by the Department or local authority field inspector to meet unanticipated site conditions.

10. Each access shall be constructed in a manner that shall not cause water to enter onto the roadway or shoulder, and shall not interfere with the existing drainage system on the right-of-way or any adopted municipal system and drainage plan.

11. The Permittee is responsible for obtaining any necessary additional Federal, State and/or City/County permits or clearances required for construction of the access. Issuance of this access permit does not constitute verification of the above required actions by the Permittee.

By accepting the permit, the permittee stipulates and agrees to fully protect, save, defend, indemnify, and hold harmless, to the extent allowed by law, the issuing Authority, and each of the Authority's directors, officers, employees, agents and representatives, from and against any and all claims, costs (including but not limited to all reasonable fees and charges of engineers, architects, attorneys, and other professionals or expert witnesses and all court or other dispute resolution costs directly incurred by reason of claims directly brought against the Authority), losses, damages, pre- or post-judgment interest, causes of action, suits, or liability of any nature whatsoever by reason of liability imposed due to Permittee's failure to obtain, or disregard of, any applicable federal, state or local environmental permits, approvals, authorizations, or clearances, or in meeting or complying with any applicable federal, state or local environmental law, regulation, condition or requirements in connection with any activities authorized by this Access Permit.

CHANGES IN ACCESS USE AND PERMIT VIOLATIONS

1. It is the responsibility of the property owner and permittee to ensure that the use of the access to the property is not in violation of the Code, permit terms and conditions or the Act. The terms and conditions of any permit are binding upon all assigns, successors-in-interest, heirs and occupants. If any significant changes are made or will be made in the use of the property which will affect access operation, traffic volume and or vehicle type, the permittee or property owner shall contact the local issuing authority or the Department to determine if a new access permit and modifications to the access are required.

2. When an access is constructed or used in violation of the Code, section 43-2-147(5)(c), C.R.S., of the Act applies. The Department or issuing authority may summarily suspend an access permit and immediately order closure of the access when its continued use presents an immediate threat to public health, welfare or safety. Summary suspension shall comply with article 4 of title 24, C.R.S.

MAINTENANCE

1. The permittee, his or her heirs, successors-in-interest, assigns, and occupants of the property serviced by the access shall be responsible for meeting the terms and conditions of the permit, the repair and maintenance of the access beyond the edge of the roadway including any cattle guard and gate, and the removal or clearance of snow or ice upon the access even though deposited on the access in the course of Department snow removal operations. Within unincorporated areas the Department will keep access culverts clean as part of maintenance of the highway drainage system. However, the permittee is responsible for the repair and replacement of any access-related culverts within the right-of-way. Within incorporated areas, drainage responsibilities for municipalities are determined by statute and local ordinance. The Department will maintain the roadway including auxiliary lanes and shoulders, except in those cases where the access installation has failed due to improper access construction and/or failure to follow permit requirements and specifications in which case the permittee shall be responsible for such repair. Any significant repairs such as culvert replacement, resurfacing, or changes in design or specifications, requires authorization from the Department.

STATE HIGHWAY ACCESS PERMIT 311081 **September 22, 2011**

Located on SH 24 at mile post 178.80 Right
Issued to Construction Investments

TERMS AND CONDITIONS

1. This permitted access is only for the use and purpose stated in the Application and Permit. This Permit is issued in accordance with the State Highway Access Code (2 CCR 601-1), and is based in part upon the information submitted by the Permittee. Any subsequent relocation, reconstruction, or modifications to the access or changes in the traffic volume or traffic nature using the access shall be requested for by means of a new application. Any changes causing non-compliance with the Access Code may render this permit void, requiring a new permit.
2. The traffic volume shall be 20 DHV for Union Milling Company LLC. However, traffic may not be over 80 trips daily for a milling operation. The traffic volume does include PCE's in accordance with the Code. This access is also for Lake County Concrete property also known as Uintah Placer on Improvement Location Certificate Hopemore Mill dated January 20, 2009. The current Lake County Concrete property traffic use is for 1 average daily volume.
3. This access shall be constructed 25-35 feet wide with turning radii to accommodate the minimum turning radius of the largest vehicle or 35 foot, whichever is greater. The radii shall ensure the safe turning movements without encroachment onto other highway travel lane.
4. The Permittee shall install a R1-1sign in accordance with the MUTCD.
5. The Permittees are Constructive Investments, LLC and Allen K and Barbara J. Phillips.
6. An 18-inch minimum culvert with protective end treatments may be required for this access. The culvert shall be kept free of blockage to maintain proper flow and drainage.
7. The access shall be constructed perpendicular to the travel lanes of the State Highway for a minimum distance of 40 feet from the edge of roadway. Side slopes shall be at a 4:1 slope on the roadway. The roadway shall slope away from the highway at a -2% grade for the first 20 feet of driveway. This design shall be in conformance with section 4 of the State Highway Access Code, 2CCR 601-1.
8. The permittee shall remove or trim the vegetation to get the required sight distance and enter sight distance in accordance with the Code.
9. It shall be the responsibility of the Permittee to maintain adequate sight distance for this driveway. Trimming of vegetation or trees to maintain adequate sight distance is the sole responsibility of the Permittee.
10. Materials, Placing and Compaction of a Commercial Access up to 99 DHV: Unless the Applicant has approval from the Access Manager which may state otherwise, the following will be required for driveway construction: Base: 16 inches of class 6 gravel with maximum 6 inch lifts, Surface: 4 inches of Pavement in two 2 inch lifts. Compaction of the subgrade, embankments and backfill shall comply with sections 203 & 304 of the Colorado Highway Standard Specifications for Road and Bridge Construction.
11. The access shall be surfaced in accordance with Section 4.7 of the Access Code immediately upon completion of earthwork construction and prior to use. This access shall be hard surfaced in accordance with Section 4.7 of the Access Code a minimum distance of 50 feet from the traveled way or to the CDOT Right-of-Way. Where the hard surface is to abut existing pavement, the existing pavement shall be saw cut and removed a minimum of one foot back from the existing edge for bituminous, or until an acceptable existing cross slope is

achieved. Surfacing shall meet the Department's specifications with minimum surfacing to be equal to or greater than existing highway conditions.

12. This permit replaces any and all additional access permits that may be in existence for this access. All other access locations to this parcel shall be removed as part of this permit.
13. A Notice to Proceed, CDOT Form 1265, is required before beginning construction on the access or any activity within the highway Right-of-Way. To receive the Notice to Proceed the Applicant shall submit a complete packet to CDOT with the following items:
    (a) A cover letter requesting a Notice to Proceed, and the intended date to begin construction.
    (b) Construction Plans Stamped (11"x 17" with a minimum scale of 1" = 50') by a Colorado Registered Professional Engineer in full compliance with the State Highway Access Code The plan shall provide:
        i) Plan view with driveway dimensions - turn radius, width, slope, gates, etc.
        ii) Typical road section - existing and proposed sub base, base, pavement, and shoulder dimensions.
        iii) Centerline profile of the access/Hwy connection showing depths, driveway slope, etc.
        iv) Need to demonstrate sight distance meets the requirements of the State Highway Access Code.
    (c) Certificate of Insurance Liability as per Section 2.3(11)(i) of the State Highway Access Code.
    (d) A certified Traffic Control Plan in accordance with Section 2.4(6) of the Access Code. The Traffic Control Plan shall provide accessibility features to accommodate all pedestrians including persons with disabilities for all pathways during construction.
14. No drainage from this site shall enter onto the State Highway travel lanes. The Permittee is required to maintain all drainage in excess of historical flows and time of concentration on site. All existing drainage structures shall be extended, modified or upgraded, as applicable, to accommodate all new construction and safety standards, in accordance with the Department's standard specifications.
15. Open cuts, which are at least 4 inches in depth, within 30 feet of the edge of the State Highway traveled way, will not be left open at night, on weekends, or on holidays, or shall be protected with a suitable barrier per State and Federal Standards.
16. Nothing in this permit shall prohibit the Chief Engineer from exercising the right granted in CRS 43-3-102 Including but not limited to restricting left hand turns by construction of physical medial separations.
17. The Permittee is responsible for obtaining any necessary additional Federal, State and/or City/County permits or clearances required for construction of the access. Approval of this access permit does not constitute verification of this action by the Permittee. Permittee is also responsible for obtaining all necessary utility permits in addition to this access permit.
18. All workers within the State Highway right of way shall comply with their employer's safety and health policies/procedures, and all applicable U.S. Occupational Safety and Health Administration (OSHA) regulations - including, but not limited to the applicable sections of 29 CFR Part 1910 - Occupational Safety and Health Standards and 29 CFR Part 1926 - Safety

and Health Regulations for Construction. Personal protective equipment (e.g. head protection, footwear, high visibility apparel, safety glasses, hearing protection, respirators, gloves, etc.) shall be worn as appropriate for the work being performed, and as specified in regulation.

19. The Permittee is required to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) that have been adopted by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), and incorporated by the U.S. Attorney General as a federal standard. These guidelines are defining traversable slope requirements and prescribing the use of a defined pattern of truncated domes as detectable warnings at street crossings. The new Standards Plans and can be found on the Design and Construction Project Support web page at: http://www.dot.state.co.us/DesignSupport/, then click on *Design Bulletins*.
20. When it is necessary to remove any highway right-of-way fence, the posts on either side of the access entrance shall be securely braced with approved end posts and in conformance with the Department's M-607-1 standard, before the fence is cut, to prevent slacking of the remaining fence. All materials removed shall be returned to the Department.
21. The permittee, his or her heirs, successors-in-interest, assigns, and occupants of the property serviced by the access shall be responsible for meeting the terms and conditions of the permit, the repair and maintenance of the access beyond the edge of the roadway including any cattle guard and gate, and the removal or clearance of snow or ice upon the access even though deposited on the access in the course of Department snow removal operations. Within unincorporated areas the Department will keep access culverts clean as part of maintenance of the highway drainage system. However, the permittee is responsible for the repair and replacement of any access-related culverts within the right-of-way. Within incorporated areas, drainage responsibilities for municipalities are determined by statute and local ordinance. The Department will maintain the roadway including auxiliary lanes and shoulders, except in those cases where the access installation has failed due to improper access construction and/or failure to follow permit requirements and specifications in which case the permittee shall be responsible for such repair. Any significant repair such as culvert replacement, resurfacing, or changes in design or specifications, requires authorization from the Department.
22. Any damage to present highway facilities including traffic control devices shall be repaired immediately at no cost to the Department and prior to continuing other work.
23. During access construction no construction personal vehicles will be permitted to park in the state highway right-of-way.
24. If the access has a gate across it, the gate shall be set back far enough from the highway so that the longest vehicle using it can clear the roadway when the gate is closed.
25. Any mud or other material tracked or otherwise deposited on the roadway shall be removed daily or as ordered by the Department inspector. If mud is an obvious condition during site construction, it is recommended that the contractor build a Stabilized Construction Entrance or Scrubber Pad at the intended construction access to aid in the removal of mud and debris from vehicle tires. The details of the Stabilized Construction Entrance can be found in the M & S Standards Plan No. M-208-1.
26. A fully executed, complete copy of this permit and the Notice to Proceed must be on the job site with the contractor at all times during the construction. Failure to comply with this or any

other construction requirement may result in the immediate suspension of work by order of the Department inspector or the issuing authority.

27. No work will be allowed at night, Saturdays, Sundays and legal holidays without prior authorization from the Department. The Department may also restrict work within the State Highway right-of-way during adverse weather conditions.
28. The access shall be completed in an expeditious and safe manner and shall be completed within 45 days from initiation of construction within State Highway right-of-way or in accordance with written concurrence of the Access Manager. All construction shall be completed in a single season.
29. All costs associated with any type of utility work will be at the sole responsibility and cost of the Permittee and at no cost to CDOT.
30. Areas of roadway and/or right-of-way disturbed during this installation shall be restored to their original conditions to insure proper strength and stability, drainage and erosion control. Restoration shall meet the Department's standard specifications for topsoil, fertilization, mulching, and re-seeding.
31. Upon the completion of the access and prior to any use as allowed by this permit, the Applicant shall notify the Access Manager by certified mail within 10 days to request a final inspection. This request shall include certification that all materials and construction have been completed in accordance with all applicable Department Standards and Specifications; and that the access is constructed in conformance with the State Highway Access Code, 2 CCR 601-1, including this permit. The Engineer of Record as indicated on the construction plans, shall be present for this inspection. The access serviced by this permit may not be opened to traffic until written approval has been given from the CDOT Access Manager.

COLORADO DEPARTMENT OF TRANSPORTATION
Environmental Clearances Information Summary

PURPOSE - This summary is intended to inform entities external to CDOT that may be entering the state highway right-of-way to perform work related to their own facilities (such as Utility, Special Use or Access Permittees), about some of the more commonly encountered environmental permits/clearances that may apply to their activities. This listing is not all-inclusive - additional environmental or cultural resource permits/clearances may be required in certain instances. Appropriate local, state and federal agencies should be contacted for additional information if there is any uncertainty about what permits/clearances are required for a specific activity. **IMPORTANT – Please Review The Following Information Carefully – Failure to Comply With Regulatory Requirements May Result In Suspension or Revocation of Your CDOT Permit, Or Enforcement Actions By Other Agencies**

CLEARANCE CONTACTS - As indicated in the permit/clearance descriptions listed below, the following individuals or agencies may be contacted for additional information:

- Colorado Department of Public Health and Environment (CDPHE): General Information – (303) 692-2035
  Water Quality Control Division (WQCD): (303) 692-3500
  Environmental Permitting Website http://www.cdphe.state.co.us/permits.asp.
- CDOT Water Quality Program Manager: Rick Willard (303) 757-9343 http://www.coloradodot.info/programs/environmental/water-quality
- CDOT Asbestos Project Manager: Theresa Santangelo-Dreiling, (303) 512-5524
- Colorado Office of Archaeology and Historic Preservation: (303) 866-3395
- U.S. Army Corps of Engineers, District Regulatory Offices:
  Omaha District (NE Colorado), Denver Office (303) 979-4120 http://www.nwo.usace.army.mil/html/od-tl/tri-lakes.html
  Sacramento Dist. (Western CO), Grand Junction Office (970) 243-1199 http://www.spk.usace.army.mil/cespk-co/regulatory/
  Albuquerque District (SE Colorado), Pueblo Reg. Office (719)-543-6915 http://www.spa.usace.army.mil/reg/
- CDOT Utilities, Special Use and Access Permitting: (303) 757-9654 http://www.dot.state.co.us/Permits/

Ecological Resources – Disturbance of wildlife shall be avoided to the maximum extent practicable. Entry into areas of known or suspected threatened or endangered species habitat will require special authorization from the CDOT permitting office. If any threatened or endangered species are encountered during the progress of the permitted work, work in the subject area shall be halted and the CDOT Regional Permitting Office and Region Planning and Environmental Manager shall be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Information about threatened or endangered species may be obtained from the CDOT website, http://coloradodot.info/programs/environmental/wildlife/guidelines, or the Colorado Division of Wildlife website http://wildlife.state.co.us/WildlifeSpecies/SpeciesOfConcern/. Additional guidance may be provided by the appropriate Region Planning and Environmental Manager (RPEM).

Cultural Resources – The applicant must request a file search of the permit area through the Colorado Office of Archaeology and Historic Preservation (OAHP), Denver, to ascertain if historic or archaeological resources have previously been identified. Inventory of the permit area by a qualified cultural resources specialist may be necessary, per the recommendation of CDOT. If archaeological sites/artifacts or historic resources are known to exist prior to the initiation of the permitted work or are encountered as the project progresses, all work in the subject area shall be halted and the CDOT Regional Permitting Office and Region Planning and Environmental Manager shall be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Additional guidance may be provided by the Regional Permitting Office and RPEM. ***Contact Information:*** Contact the OAHP for file search at (303) 866-3395.

Paleontological Resources - The applicant must request a fossil locality file search through the University of Colorado Museum, Boulder, and the Denver Museum of Nature and Science to ascertain if paleontological resources have been previously identified. Inventory of the permit area by a qualified paleontologist may be necessary, per the recommendation of CDOT. If fossils are encountered during the permitted work, all work in the subject area shall be halted and the CDOT Regional Permitting Office and Region Planning and Environmental Manager shall be contacted immediately. Authorization must be provided by CDOT prior to the continuation of work. Additional guidance may be provided by the Regional Permitting Office in the Permit Special Provisions. **Contact Information:** Contact the CDOT Paleontologist at (303) 757-9632.

Hazardous Materials, Solid Waste - The Solid Wastes Disposal Sites and Facilities Act C.R.S. 30-20-100, et al, and Regulations Pertaining to Solid Waste Disposal Sites and Facilities (6 CCR 1007-2), prohibit solid waste disposal without an approved Certificate of Designation (a landfill permit). The Colorado Hazardous Waste Act C.R.S. 25-15-301 et al, and the Colorado Hazardous Waste Regulations (6 CCR 1007-3) prohibit the transfer, storage or disposal (TSD) of hazardous waste except at permitted TSD sites. There are no permitted landfills or TSD sites within the State Highway Right of Way. Therefore, all solid or hazardous wastes that might be generated by the activities of entities entering the State Highway Right of Way must be removed from the ROW and disposed of at a permitted facility or designated collection point (e.g., for solid waste, a utility or construction company's own dumpster). If pre-existing solid waste or hazardous materials contamination (including oil or petroleum contaminated soil, asbestos, chemicals, mine tailings, etc.) is encountered during the performance of work, the permittee shall halt work in the affected area and immediately contact the CDOT Regional Permitting Office for direction as to how to proceed. ***Contact Info:*** Andy Flurkey, CDOT Hazardous Materials Project Manager, (303) 512-5520.

Asbestos Containing Materials, Asbestos Contaminated Soil – All work on asbestos containing materials (ACM) must comply with the applicable requirements of the CDPHE Air Pollution Control Division's (APCD) Regulation 8. Disposal of ACM, and work done in asbestos-contaminated soil, must comply with the CDPHE Hazardous Materials and Waste Management Division's (HMWMD) Solid Waste Regulations. The application for any CDOT permit must specifically identify any ACM involved in the work for which authorization is being requested. Additional guidance or requirements may be specified in the permit special provisions. ***Contact Info:*** CDPHE APCD and HMWMD Regulations can be accessed via the CDPHE Environmental Permitting Website listed above. Additional information **concerning clearance on CDOT projects** is available from the CDOT Asbestos Project Manager (303) 512-5519, or Theresa Santangelo-Dreiling, Property Management Supervisor (303) 512-5524.

Transportation of Hazardous Materials - No person may offer or accept a hazardous material for transportation in commerce unless that person is registered in conformance with the United States Department of Transportation regulations at 49 CFR, Part 171. The hazardous material must be properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by applicable requirements, or an exemption, approval or registration has been issued. Vehicles requiring a placard, must obtain authorization and a State HAZMAT Permit from the Colorado Public Utilities Commission. ***Contact Information:*** For authorization and more info call the Federal Motor Safety Carrier Administration, US DOT for inter- and intra-state HAZMAT Registration (303) 969-6748. Colorado Public Utilities Commission: (303) 894-2868.

Discharge of Dredged or Fill Material – 404 Permits Administered By the U.S. Army Corps of Engineers, and Section 401 Water Quality Certifications Issued by the CDPHE WQCD - Corps of Engineers 404 Permits are required for the discharge of dredged or fill materials into waters of the United States, including wetlands. There are various types of 404 Permits, including Nationwide Permits, which are issued for activities with relatively minor impacts. For example, there is a Nationwide Permit for Utility Line Activities (NWP #12). However, depending upon the specific circumstances, it is possible that either a "General" or "Individual" 404 permit would be required. If an Individual 404 Permit is required, Section 401 water quality certification from the CDPHE WQCD is also required. Contact the appropriate Corps District Regulatory Office for information about what type of 404 permit may be required (contact information above). Contact the CDPHE Water Quality Control Division at (303) 692-3500.

Working on or in any stream or its bank - In order to protect and preserve the state's fish and wildlife resources from actions that may obstruct, diminish, destroy, change, modify, or vary a natural existing stream or its banks or tributaries, it may be necessary to obtain a Senate Bill 40 certification from the Colorado Department of Natural Resources. A stream is defined as 1) represented by a solid blue line on USGS 7.5' quadrangle maps; and/or 2) intermittent streams providing live water beneficial to fish and wildlife; and/or 3) segments of streams supporting 25% or more cover within 100 yards upstream or downstream of the project; and/or 4) segments of streams having wetlands present within 200 yards upstream or downstream of the project. The Colorado Division of Wildlife (CDOW) application, as per guidelines agreed upon by CDOT and CDOW, can be accessed at http://www.coloradodot.info/programs/environmental/wildlife/guidelines.

Stormwater Construction Permit (SCP) and Stormwater Discharge From Industrial Facilities - Discharges of stormwater runoff from construction sites disturbing one acre or more - or certain types of industrial facilities, such as concrete batch plants - requires a CDPS Stormwater Construction Permit. ***Contact Information:*** For Utility/Special Use activities being performed in conjunction and coordination with a CDOT highway construction contract, please contact the CDOT Water Quality Program Manager at (303) 757-9343. Otherwise, contact the CDPHE Water Quality Control Division at (303) 692-3500. Website: http://www.cdphe.state.co.us/wq/PermitsUnit/index.html.

Construction Dewatering (Discharge or Infiltration) – Discharges of water encountered during excavation or work in wet areas may require a Construction Dewatering Discharge Permit. ***Contact Information:*** For Construction Dewatering Discharge Permits, contact the CDPHE WQCD at (303) 692-3500. For Dewatering Application and Instructions, see Section 3 at the CDPHE website: http://www.cdphe.state.co.us/wq/PermitsUnit/FORMSandApplications/Appsandformsnewpage.html

Municipal Separate Storm Sewer System (MS4) Discharge Permit – Discharges from the storm sewer systems of larger municipalities, and from the CDOT highway drainage system that lies within those municipalities, are subject to MS4 Permits issued by the CDPHE WQCD. For facilities that lie within the boundaries of a municipality that is subject to an MS4 permit, the owner of such facility should contact the municipality regarding stormwater related clearances that may have been established under that municipality's MS4 permit. All discharges to the CDOT highway drainage system or within the Right of Way (ROW) must comply with the applicable provisions of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations Permit # COS-000005 (http://www.coloradodot.info/programs/environmental/water-quality/documents/CDOT%20MS4%20Permit.doc/view) and COR-030000 (http://www.cdphe.state.co.us/wq/PermitsUnit/PERMITs/SWpermitsrats/SWConstructionPErmit.pdf). Discharges are subject to inspection by CDOT and CDHPE. Contact the CDPHE Water Quality Control Division at (303) 692-3500 for a listing of municipalities required to obtain MS4 Permits, or go to http://www.cdphe.state.co.us/wq/permitsunit/MS4/MS4Permittees.pdf.

General Prohibition – Discharges - All discharges are subject to the provisions of the Colorado Water Quality Control Act and the Colorado Discharge Permit Regulations. Prohibited discharges include, but are not limited to, substances such as wash water, paint, automotive fluids, solvents, oils or soaps and sediment. Allowable non-stormwater discharges can be found at http://www.coloradodot.info/programs/environmental/water-quality/glossary.html#AllowableDischarge. ***Contact Information****:* Contact the CDOT Water Quality Program Manager at (303) 757-9343, or the Colorado Department of Public Health and Environment, Water Quality Control Division at (303) 692-3500.

General Authorization - Allowable Non-Stormwater Discharges - Unless otherwise identified by CDOT or the WQCD as significant sources of pollutants to the waters of the State, the following discharges to stormwater systems are allowed without a Colorado Discharge Permit System permit: landscape irrigation, diverted stream flows, uncontaminated ground water infiltration to separate storm sewers, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, uncontaminated springs, footing drains; water line flushing, flows from riparian habitats and wetlands, and flow from fire fighting activities. ***Contact Information****:* The CDOT Water Quality Program Manager or the CDPHE Water Quality Control Division (telephone #'s listed above).

Erosion and Sediment Control Practices - For activities requiring a Stormwater Construction Permit, erosion control requirements will be specified through that permit. In those situations where a stormwater permit is not required, all reasonable measures should be taken in order to minimize erosion and sedimentation according to CDOT 208 specifications. In either case, the CDOT Erosion Control and Stormwater Quality Guide (most recent version) should be used to design erosion controls and to restore disturbed vegetation. ***Contact Information****:* The CDOT Erosion Control and Stormwater Quality Guide may be obtained from the Bid Plans Office at (303) 757-9313 or from: http://www.dot.state.co.us/environmental/envWaterQual/wqms4.asp **Error! Hyperlink reference not valid.**

Disposal of Drilling Fluids - Drilling fluids used in operations such as Horizontal Directional Drilling may be classified as "discharges" or "solid wastes", and in general, should be pumped or vacuumed from the construction area, removed from the State Highway Right of Way, and disposed of at permitted facilities that specifically accept such wastes. Disposal of drilling fluids into storm drains, storm

sewers, roadside ditches or any other type of man-made or natural waterway is prohibited by Water Quality Control and/or Solid Waste regulations. Small quantities of drilling fluid solids (less than 1 cubic yard of solids) may be left on-site after either being separated from fluids or after infiltration of the water, provided: 1) the drilling fluid consists of only water and bentonite clay, or, if required for proper drilling properties, small quantities of polymer additives that are approved for use in drinking water well drilling; 2) the solids are fully contained in a pit, and are not likely to pose a nuisance to future work in the area, 3) the solids are covered and the area restored as required by CDOT permit requirements (Utility, Special Use, or Access Permits, etc.). ***Contact Information:*** Contact the CDOT / CDPHE Liaison or CDOT Water Quality Program Manager.

Concrete Washout - Waste generated from concrete activities shall NOT be allowed to flow into the drainage ways, inlets, receiving waters, or in the CDOT ROW. Concrete waste shall be placed in a temporary concrete washout facility and must be located a minimum of 50 feet from state waters, drainageways, and inlets. Concrete washout shall only be performed as specified by the CDOT Environmental Program and shall be in accordance to CDOT specifications and guidelines. ***Contact Information****:* Contact the CDOT Water Quality Program Manager at (303) 757-9343. Website: http://www.coloradodot.info/programs/environmental/water-quality/revised-m-standards; refer to the link *Revision of Sections 101, 107, 208, 213 and 620 Water Quality Control One or More Acres of Disturbance* for additional guidance.

Spill Reporting - Spills shall be contained and cleaned up as soon as possible. Spills shall NOT be washed down into the storm drain or buried. All spills shall be reported to the CDOT Illicit Discharge Hotline at (303) 512-4446 (4H20), as well as the Regional Permitting Office and Regional Maintenance Supervisor. Spills on highways, into waterways, any spill in the highway right-of-way exceeding 25 gallons, or that may otherwise present an immediate danger to the public shall be reported by calling 911, and shall also be reported to the CDPHE at 1-877-518-5608.

About This Form - Questions or comments about this Information Summary may be directed to Alex Karami, CDOT Safety & Traffic Engineering, Utilities Unit, at (303) 757-9841, mailto:alex.karami@dot.state.co.us.

APPENDIX 13-10

COLORADO STATE ENGINEER - MONITORING WELL PERMITS

WELL PERMIT NUMBER
295655

CJK MILLING COMPANY LLC
MONITORING WELL - MW2-SW

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

1. WELL PERMIT NUMBER: 295655

2. WELL OWNER INFORMATION
NAME OF WELL OWNER: Union Milling Company LLC
MAILING ADDRESS: P.O.Box 620490
CITY: Littleton STATE: CO ZIP CODE: 80162
TELEPHONE NUMBER: ( ) 303-947-7837

3. WELL LOCATION AS DRILLED: NW 1/4, NE 1/4, Sec. 33, Twp. 9 ☐ N or ☒ S, Range 80 ☐ E or ☒ W
DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.
SUBDIVISION: Hole # 1 _____, LOT ____, BLOCK ____, FILING (UNIT) ____
Optional GPS Location: GPS Unit must use the following settings: Format must be UTM, Units must be meters, Datum must be NAD83, Unit must be set to true N, ☐ Zone 12 or ☒ Zone 13
Owner's Well Designation: _____
Easting: 384906
STREET ADDRESS AT WELL LOCATION: 13815 Highway 24
Northing: 4343010

4. GROUND SURFACE ELEVATION _____ feet
DRILLING METHOD cabletool
DATE COMPLETED Oct 1, 2014 TOTAL DEPTH 53 feet DEPTH COMPLETED 53 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
0 - 53	Glacial fill			
				45-53
18 bags	(50#) 8/12 silica sand		39-53 ft	
1-5 gal bucket	1/4" bentonite pellets		37-39 ft.	

6. HOLE DIAM (in.)

HOLE DIAM (in.)	From (ft)	To (ft)
9	0	53

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
7	steel	.188	+3	33
5 9/16	steel	.188	+2	42

PERFORATED CASING: Screen Slot Size (in): .060

5 1/2	stainless steel screen		42	52

8. FILTER PACK: Material _____ Size _____ Interval _____

9. PACKER PLACEMENT: Type _____ Depth _____

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
cement	10 bags	6 to 1	3 to 20	poured

Remarks: _____

11. DISINFECTION: Type HTH Amt. Used 1/2 ounce

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.
TESTING METHOD bailer
Static Level 44 ft. Date/Time measured: October 1, 2014 Production Rate 2 gpm.
Pumping Level ____ ft. Date/Time measured _____ Test Length (hrs) 2
Remarks:

13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name:	Phone:	License Number:
Golden Eagle Drilling Corp.	( ) 970-668-3564	388

Mailing Address: P.O. Box 475, Frisco, CO 80443

Signature:	Print Name and Title	Date
Joe W. Shelton	Joe W. Shelton, Pres.	10-14-14

Form No. GWS-11 08/2016

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 Sherman St., Ste 821, Denver CO 80203
(303) 866-3581
dwrpermitsonline@state.co.us

For Office Use Only

CHANGE IN OWNER NAME/MAILING ADDRESS

PRIOR TO COMPLETING THIS FORM, SEE INSTRUCTIONS ON REVERSE SIDE
INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED

Name, address and phone number of person claiming ownership of the well permit:

Name(s): CJK MILLING COMPANY LLC

Mailing Address: 33084 BERGEN MOUNTAIN RD.

City, St. Zip: EVERGREEN, CO 80439

Phone: (720) 412-8858 Email: GKNIPPA@MSN.COM

Well Permit Number: 295655 Receipt Number: 3666028B Case Number (optional): _____

WELL LOCATION: County: LAKE Well Name or # (optional): MW2-SW

13815 US HIGHWAY 24 LEADVILLE CO 80461
Street Address at Well Location | City | State | Zip

☐ Check if well address is same as owner's mailing address

NW 1/4 of the NE 1/4, Sec. 33, Township 9 ☐ N. or ☒ S., Range 80 ☐ E. or ☒ W., 6TH P.M.

Distance from Section Lines: 379 Ft. from ☒ N. or ☐ S. Line, 1333 Ft. from ☒ E. or ☐ W. Line.

Subdivision Name (if applicable): N/A , Lot ____, Block ____, Filing/Unit ____

NOTE: If changing/correcting the permitted location of a well, use Form No. GWS-42.

I (we) claim and say that I am (we are) the owner(s) of the well permit described above, know the contents of the statements made herein, and state that they are true to my (our) knowledge. This filing is made pursuant to C.R.S. 37-90-143.

Signature(s) of the New Owner	Please print the Signer's Name & Title	Date

It is the responsibility of the new owner of this well permit to complete and sign this form. If an agent is signing or entering information, please see instructions.
Please allow 4 to 6 weeks for processing of this form. Thereafter, you can view or print the accepted document at:
https://www.dwr.state.co.us/Tools/WellPermits

Signature of DWR staff indicates acceptance as a Change in Owner Name and/or Mailing Address.

For Staff Use Only

Staff Signature _____ Date _____

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

LIC

WELL PERMIT NUMBER 295655 - - -
DIV. 2 WD 11 DES. BASIN MD

APPLICANT

UNION MILLING COMPANY LLC
PO BOX 620490
LITTLETON, CO 80162-

(303) 947-7837

APPROVED WELL LOCATION
LAKE COUNTY
NW 1/4 NE 1/4 Section 33
Township 9 S Range 80 W Sixth P.M.

DISTANCES FROM SECTION LINES
379 Ft. from North Section Line
1333 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 384988 Northing: 4343027

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept capped and locked at all times except during sampling or measuring.
5) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
6) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
7) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
8) This well must be constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules. If non-standard construction is anticipated, a variance request must be submitted in accordance with Rule 18 and approved prior to well construction.
9) A Well Construction and Test Report (Form GWS-31), including lithologic log must be submitted by the individual authorized to construct the well. For non-standard construction, the report must include an as-built drawing showing details such as depth, casing, perforated zones, and a description of the grouting type and interval.
10) This well shall be constructed not more than 200 feet from the location specified on this permit.

NOTE: Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. Additionally, pursuant to Rule 14.2 of the Water Well Construction Rules (2 CCR 402-2), monitoring holes constructed pursuant to a monitoring hole notice shall not be converted to a production well. (Upon obtaining a permit from the State Engineer, a monitoring hole may be converted to a monitoring well, recovery well for remediation of the aquifer, or a dewatering system for dewatering the aquifer.)

NOTE: This permit will expire on the expiration date unless the well is constructed by that date. A Well Construction and Test Report (GWS-31) must be submitted to the Division of Water Resources to verify the well has been constructed. An extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: http://www.water.state.co.us

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, and quarter were determined from GPS coordinates provided by the applicant. The distances from section lines, quarter/quarter, quarter, Section, Township, Range and P.M. were determined from UTM coordinate values provided with the permit application. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
CRF

Dick Wolfe
State Engineer

By

Receipt No. 3666028B

DATE ISSUED 09-11-2014

EXPIRATION DATE 09-11-2016

Form No. GWS-12 01/2020

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Main: (303) 866-3581 DWR
Website: dwr.colorado.gov
Email to: dwrpermitsonline@state.co.us

For Office Use Only

REGISTRATION OF EXISTING WELL

Review form instructions prior to completing form

NAME & CONTACT INFORMATION OF WELL OWNER:

Name(s) CJK MILLING COMPANY LLC

Mailing Address 33084 BERGEN MOUNTAIN RD

City: EVERGREEN | State: CO | Zip Code: 80439

Phone No. with area code 720-412-8838 | Email GKNIPPA@MSN.COM

WELL LOCATION County: LAKE Well Name(optional): MW2-SW

13815 US HIGHWAY 24 (Address) LEADVILLE (City) CO (State) 80461 (Zip)

NW 1/4 of the NE 1/4, Sec 33 Twp 9 ☐ N. or ☒ S., Range 80 ☐ E. or ☒ W., 6TH P.M.

Distance from Section Lines 379 Ft. ☒ N. or ☐ S. Line, 1333 Ft. ☒ E. or ☐ W. Line.

ATTACH A COPY OF A CURRENT DEED FOR THE SUBJECT PARCEL

Subdivision Name NA Lot ____ Block ____ Filing/Unit ____

Optional: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**. ☐ Zone 12 or ☒ Zone 13

Easting 384988

Northing 434027

Was GPS unit checked for above items? ☐ YES ☒ NO

The well has historically been used for the following purpose(s): QUARTERLY WATER SAMPLING AS MANDATED BY CDRMS PERMIT M1990-057

Water first used beneficially by the original owner for the above described purposes on (mm/dd/yyyy) 09/11/2014

The total depth of this well is 53 feet.

The pumping rate of this well is N/A gallons per minute. NOT TESTED. WATER PUMPED TO COLLECT SAMPLE ONLY

The average annual amount of water diverted is 0 acre-feet. APPROX 45 GALLON PUMPED FOR EACH TEST / 4 TIMES PER YEAR

The lawn and garden irrigated (watered) by water from this well is 0 Number ☐ Acre or ☐ Square feet.

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 23-3-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge.

Sign or enter name of Well Owner(s)	Print Name and Title of Well Owner(s)	Date (mm/dd/yyyy)

For Office Use Only

WE ____
WR ____
CWCB ____
AQUA ____
MYLAR ____

Div ____ WD ____ Basin ____ MD ____

WELL PERMIT NUMBER
295654

CJK MILLING COMPANY LLC
MONITORING WELL – MW3NE

FORM NO. GWS-31 04/2005

WELL CONSTRUCTION AND TEST REPORT

STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587 Main (303) 866-3581
Fax (303) 866-3589 http://www.water.state.co.us

For Office Use Only

1. WELL PERMIT NUMBER: 295654

2. WELL OWNER INFORMATION
NAME OF WELL OWNER: Union Milling Company LLC
MAILING ADDRESS: P.O.Box 620490
CITY: Littleton STATE: CO ZIP CODE: 80162
TELEPHONE NUMBER: ( ) 303-947-7837

3. WELL LOCATION AS DRILLED: SE 1/4, SE 1/4, Sec. 28, Twp. 9 ☐ N or ☒ S, Range 80 ☐ E or ☒ W
DISTANCES FROM SEC. LINES: _____ ft. from ☐ N or ☐ S section line and _____ ft. from ☐ E or ☐ W section line.
SUBDIVISION: Hole # 2 LOT ____ BLOCK ____ FILING (UNIT) ____
Owner's Well Designation: _____
Optional GPS Location: GPS Unit must use the following settings: Format must be **UTM**, Units must be **meters**, Datum must be **NAD83**, Unit must be set to **true N**, ☐ Zone 12 or ☒ Zone 13
Easting: 385077
STREET ADDRESS AT WELL LOCATION: 13815 Highway 24
Northing: 4343192

4. GROUND SURFACE ELEVATION _____ feet DRILLING METHOD cable tool
DATE COMPLETED Oct 14, 2014 TOTAL DEPTH 74 feet DEPTH COMPLETED 66 feet

5. GEOLOGIC LOG:

Depth	Type	Grain Size	Color	Water Loc.
0 to 74	glacial fill			
				60-66

filled bottom 8 feet with gravel, 66 to 74 ft.
14 (50#) bags of 8/12 silica sand, 53 to 66 ft.
2 5 gal buckets 1/4" bentonite pellets 49to 53 ft

6. HOLE DIAM (in.)

	From (ft)	To (ft)
9	0	74

7. PLAIN CASING:

OD (in)	Kind	Wall Size (in)	From (ft)	To (ft)
7	steel	.188	+3	50
5 9/16	steel	.188	+1	56

PERFORATED CASING: Screen Slot Size (in): .060

5 1/2 stainless steel screen			56	66

8. FILTER PACK: Material _____ Size _____ Interval _____ ft.

9. PACKER PLACEMENT: Type _____ Depth _____

10. GROUTING RECORD

Material	Amount	Density	Interval	Placement
cement	12 bags	6 to 1	4to 25	poured

Remarks: _____

11. DISINFECTION: Type HTH Amt. Used 1 ounce

12. WELL TEST DATA: ☐ Check box if Test Data is submitted on Form Number GWS 39 Supplemental Well Test.
TESTING METHOD bailer
Static Level 57 ft. Date/Time measured: October 14, 2014 Production Rate 5 gpm.
Pumping Level ____ ft. Date/Time measured _____ Test Length (hrs) 2
Remarks:

13. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. [The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to $5000 and/or revocation of the contracting license.]

Company Name: Golden Eagle Drilling Corp. Phone: ( ) 970-668-3564 License Number: 388
Mailing Address: P.O. Box 475, Frisco, CO 80443
Signature: Joe W. Shelton Print Name and Title Joe W. Shelton, Pres. Date 10-14-14

Form No.
GWS-11
08/2016

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 Sherman St., Ste 821, Denver CO 80203
(303) 866-3581
dwrpermitsonline@state.co.us

For Office Use Only

CHANGE IN OWNER NAME/MAILING ADDRESS

PRIOR TO COMPLETING THIS FORM, SEE INSTRUCTIONS ON REVERSE SIDE
INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED

Name, address and phone number of person claiming ownership of the well permit:

Name(s): CJK MILLING COMPANY LLC

Mailing Address: 33084 BERGEN MOUNTAIN RD.

City, St. Zip: EVERGREEN, CO 80439

Phone: (720) 412-8838 Email: GKNIPPA@MSN.COM

Well Permit Number: 295654 Receipt Number: 3666028A Case Number (optional): _____

WELL LOCATION: County: LAKE Well Name or # (optional): MW3 - NE

13815 US HIGHWAY 24 LEADVILLE CO 80461
Street Address at Well Location | City | State | Zip

☐ Check if well address is same as owner's mailing address

SE 1/4 of the SE 1/4, Sec. 28, Township 9 ☐ N. or ☒ S., Range 80 ☐ E. or ☒ W., 6TH P.M.

Distance from Section Lines: 208 Ft. from ☐ N. or ☒ S. Line, 791 Ft. from ☒ E. or ☐ W. Line.

Subdivision Name (if applicable): N/A , Lot ____, Block ____, Filing/Unit ____

NOTE: If changing/correcting the permitted location of a well, use Form No. GWS-42.

I (we) claim and say that I am (we are) the owner(s) of the well permit described above, know the contents of the statements made herein, and state that they are true to my (our) knowledge. This filing is made pursuant to C.R.S. 37-90-143.

Signature(s) of the New Owner	Please print the Signer's Name & Title	Date

It is the responsibility of the new owner of this well permit to complete and sign this form. If an agent is signing or entering information, please see instructions.
Please allow 4 to 6 weeks for processing of this form. Thereafter, you can view or print the accepted document at:
https://www.dwr.state.co.us/Tools/WellPermits

Signature of DWR staff indicates acceptance as a Change in Owner Name and/or Mailing Address.

For Staff Use Only

Staff Signature _____ Date _____

Form No.
GWS-25

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

LIC

WELL PERMIT NUMBER 295654 - - -
DIV. 2 WD 11 DES. BASIN MD

APPLICANT

UNION MILLING COMPANY LLC
PO BOX 620490
LITTLETON, CO 80162-

(303) 947-7837

APPROVED WELL LOCATION
LAKE COUNTY
SE 1/4 SE 1/4 Section 28
Township 9 S Range 80 W Sixth P.M.

DISTANCES FROM SECTION LINES
208 Ft. from South Section Line
791 Ft. from East Section Line

UTM COORDINATES (Meters,Zone:13,NAD83)
Easting: 385067 Northing: 4343204

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
3) Approved pursuant to CRS 37-92-602(3)(b)(I) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
4) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be ~~kept capped and locked at all times except during sampling or measuring~~.
5) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
6) Upon conclusion of the monitoring program the well owner shall plug this well in accordance with Rule 16 of the Water Well Construction Rules. A Well Abandonment Report must be completed and submitted to the Division of Water Resources within 60 days of plugging.
7) The owner shall mark the well in a conspicuous place with the well permit number and name of aquifer as appropriate, and shall take necessary means and precautions to preserve these markings.
8) This well must be constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction Rules. If non-standard construction is anticipated, a variance request must be submitted in accordance with Rule 18 and approved prior to well construction.
9) A Well Construction and Test Report (Form GWS-31), including lithologic log must be submitted by the individual authorized to construct the well. For non-standard construction, the report must include an as-built drawing showing details such as depth, casing, perforated zones, and a description of the grouting type and interval.
10) This well shall be constructed not more than 200 feet from the location specified on this permit.

NOTE: Issuance of this permit does not guarantee that this well can be converted to a production well under a future permit. Additionally, pursuant to Rule 14.2 of the Water Well Construction Rules (2 CCR 402-2), monitoring holes constructed pursuant to a monitoring hole notice shall not be converted to a production well. (Upon obtaining a permit from the State Engineer, a monitoring hole may be converted to a monitoring well, recovery well for remediation of the aquifer, or a dewatering system for dewatering the aquifer.)

NOTE: This permit will expire on the expiration date unless the well is constructed by that date. A Well Construction and Test Report (GWS-31) must be submitted to the Division of Water Resources to verify the well has been constructed. An extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: http://www.water.state.co.us

NOTICE: This permit has been approved subject to the following changes: The distances from section lines, quarter/quarter, and quarter were determined from GPS coordinates provided by the applicant. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

APPROVED
CRF

Dick Wolfe
State Engineer

By Caleb Kay

Receipt No. 3666028A DATE ISSUED 09-11-2014 EXPIRATION DATE 09-11-2016

Form No. GWS-12 01/2020

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
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Review form instructions prior to completing form

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Name(s): CJK MILLING COMPANY LLC

Mailing Address: 33084 BERGEN MOUNTAIN RD

City: EVERGREEN | State: CO | Zip Code: 80439

Phone No. with area code: 720-412-8838 | Email: GKNIPPA@MSN.COM

WELL LOCATION County: LAKE | Well Name(optional): MW3-NE

13845 US HIGHWAY 24 (Address) LEADVILLE (City) CO (State) 80461 (Zip)

SE 1/4 of the SE 1/4, Sec 9 Twp ____ ☐ N. or ☒ S., Range 80 ☐ E. or ☒ W., 6TH P.M.

Distance from Section Lines 208 Ft. ☐ N. or ☒ S. Line, 791 Ft. ☐ E. or ☒ W. Line.

ATTACH A COPY OF A CURRENT DEED FOR THE SUBJECT PARCEL

Subdivision Name N/A Lot ____ Block ____ Filing/Unit ____

Optional: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**. ☐ Zone 12 or ☒ Zone 13

Easting 385067

Northing 4343204

Was GPS unit checked for above items? ☐ YES ☒ NO

The well has historically been used for the following purpose(s): QUARTERLY WATER SAMPLING AS MANDATED BY CDRMS PERMIT M1990-057

Water first used beneficially by the original owner for the above described purposes on (mm/dd/yyyy) 09/11/2014.

The total depth of this well is 74 feet.

The pumping rate of this well is N/A gallons per minute. NOT TESTED. WATER PUMPED TO COLLECT SAMPLE ONLY

The average annual amount of water diverted is Ø acre-feet. APPROX 60 GALLON PUMPED FOR EACH TEST / 4 TIMES PER YEAR

The lawn and garden irrigated (watered) by water from this well is Ø Number ☐ Acre or ☐ Square feet.

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 23-3-104(13)(a). I have read the statements herein, know the contents thereof, and state that they are true to my knowledge.

Sign or enter name of Well Owner(s)	Print Name and Title of Well Owner(s)	Date (mm/dd/yyyy)

For Office Use Only

WE ____
WR ____
CWCB ____
AQUA ____
MYLAR ____

Div ____ WD ____ Basin ____ MD ____