COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Dawson Mine	**MINE/PROSPECTING ID#:** M-1977-392	**MINERAL:** Clay (general)	**COUNTY:** Elbert
INSPECTION TYPE: Surety-Related Inspection	**INSPECTOR(S):** Amy Eschberger	**INSP. DATE:** June 17, 2021	**INSP. TIME:** 10:00
OPERATOR: The Denver Brick Company	**OPERATOR REPRESENTATIVE(S):** Richard Murphy, Jason McGraw	**TYPE OF OPERATION:** 112c - Construction Regular Operation	

REASON FOR INSPECTION: Surety Related	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $80,358.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:** Amy Eschberger	**SIGNATURE DATE:** July 6, 2021

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS---------- Y	**(FN) FINANCIAL WARRANTY-------- N**	**(RD) ROADS---------- Y**
(HB) HYDROLOGIC BALANCE---------- Y	**(BG) BACKFILL & GRADING---------- Y**	**(EX) EXPLOSIVES--------- N**
(PW) PROCESSING WASTE/TAILING---- N	**(SF) PROCESSING FACILITIES------- N**	**(TS) TOPSOIL---------- Y**
(MP) GENL MINE PLAN COMPLIANCE- Y	**(FW) FISH & WILDLIFE---------- N**	**(RV) REVEGETATION---- N**
(SM) SIGNS AND MARKERS---------- Y	**(SP) STORM WATER MGT PLAN---- N**	**(RS) RECL PLAN/COMP-- Y**
(ES) OVERBURDEN/DEV. WASTE--------- Y	**(SC) EROSION/SEDIMENTATION--- N**	**(ST) STIPULATIONS------- N**
(AT) ACID OR TOXIC MATERIALS------- N	**(OD) OFF-SITE DAMAGE----------N**	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This was a surety-related inspection of the Dawson Mine (Permit No. M-1977-392) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to a Succession of Operators application (SO-01) filed with our office on May 20, 2021. SO-01 requests the permit be transferred from The Denver Brick Company to General Shale Brick, Inc. (Successor Operator). Option No. 1 was selected in the application to waive the applicant's right to a decision in 30 days. This means the Division must inspect the site and calculate the required financial warranty for reclaiming current disturbance in accordance with the approved reclamation plan, and the Successor Operator must post this amount for SO-01 approval. The current operator was represented during the inspection by Richard Murphy. The Successor Operator was represented by Jason McGraw.

The site is located approximately 11 miles northeast of Kiowa, CO in Elbert County. Access to the site is directly off of Co Rd 73, which runs through the permit area. One must pass through this site (on Co Rd 73) to access the operator's Bijou Clay Mine (Permit No. M-1997-007), located approximately 1,900 feet to the east. A permit sign was posted at the western gated entrance to the site off Co Rd 73. The permit boundary was marked with t-posts and PVC pipes. **Photos 1-24** taken during the inspection are included with this report.

It should be noted, after reviewing the permit file for its June 3, 2014 inspection, the Division had discovered a discrepancy in the permit acreage which started with Amendment No. 2 (AM-02), approved in 2003. At the time, it was thought that Technical Revision No. 3 (TR-03), approved in 2006, had added 2.75 acres to the 42.35 acre permit area approved in AM-02. This would have given a revised permit area of 45.1 acres prior to the Division's 2008 approval of Acreage Reduction No. 2 (AR-02) to release 16.25 acres, which would have left a permit area of 28.85 acres. Accordingly, the Division corrected this acreage discrepancy in the permit system, changing the permit area from 25.75 acres to 28.85 acres. This correction did not change the approved permit boundary in any way. It merely corrected the permit acreage in our system to reflect the acreage additions and reductions approved through a series of revisions. After researching the permit file again for this inspection, the Division has discovered that TR-03 did not actually add 2.75 acres to the permit area as it was believed in 2014. The purpose of TR-03 was merely to correct the acreages designated to the various mining areas on the mining plan map. This is consistent with Rules 1.1(6) and (53) which state that an increase in acreage of the affected land must be done through a permit Amendment (and not a Technical Revision). In light of this discovery, an additional correction to the permit acreage was necessary. The operator should note the permit area for this site has been corrected to 26.1 acres. A memorandum (see enclosed) explaining this correction has been added to the permit file. The three most recently approved maps for the site, from AM-02 (approved in 2003), from TR-03 (approved in 2006), and from AR-02 (approved in 2008), are enclosed with this report.

This is a 112c operation permitted for 26.1 acres (see enclosed Google Earth image of site) to mine clay for use in brick manufacturing. The affected lands and associated mineral rights are owned by the Colorado State Land Board. The permit area is bisected by Co Rd 73, which runs northeast-southwest across the site. The mining plan includes mining through three existing knobs located south of the access road which slope to the north. The portion of the permit area located north of the road has been utilized primarily for stockpile storage after being partially mined in the earlier years of the permit. The permit area is divided into six different mine areas, of which, Areas 1 and 4 are located mostly north of Co Rd 73, and Areas 2, 3, 5, and 6 are located mostly south of the road. The maximum mining depth is approximately 30 feet. No material processing will occur on site. Salvaged overburden and topsoil will be stored separately on site for use in reclamation.

The approved post-mining land use for the site is rangeland. The reclamation plan calls for backfilling the highwalls to a final slope gradient of 3H:1V or flatter, grading the pits in a manner that maintains positive

drainage to the north, discing any compacted areas (e.g., pit floors, roads, stockpile areas), replacing approximately 6 inches of topsoil on all disturbed land, and revegetating the land with the following grass seed mixture: Western wheatgrass, Sideoats grama, Pubescent wheatgrass, and Indian ricegrass. All internal mine roads will be reclaimed. The existing Co Rd 73 which crosses the permit area will remain after reclamation.

Currently, there are two main mining areas located south of the road, which are referred to in this report as the "West pit" and the "East pit". The West pit area was mined first from ~ 2004 through 2007. The eastern portion of this area was graded to 3H:1V or flatter in 2011/2012. The western portion of this area is still being used for stockpile storage. A large overburden stockpile and a topsoil stockpile are stored along the southern edge of this area. These stockpiles appeared to be stable with good vegetative cover. A large calcine stockpile is also present in this area. This material is considered product which will eventually be transported off site for use in the brick manufacturing process. Some grasses, forbs, and weeds are volunteering into this area. The Division estimates the West pit disturbance area to cover approximately 7.9 acres. No evidence indicating this area was retopsoiled or seeded could be found in the permit file. For final reclamation, this area will need to be ripped, retopsoiled, and revegetated.

Mining activities began in the East pit area in 2011. This area includes a horseshoe-shaped pit which opens up to the north. Highwalls in this pit range from approximately 15 to 25 feet in height with near vertical to 1H:1V slopes. This pit has two access points off of Co Rd 73. An unmined ridge remains at the northern edge of the pit. According to historical imagery available in Google Earth, it appears the current extent of the pit highwalls has remained the same since 2011. The eastern and southern highwalls are located very close to if not coinciding with the permit boundary. Therefore, this pit could only be expanded to the west. Additionally, the operator will need to be very careful not to create off-site disturbance when reclaiming these highwalls. Mr. Murphy indicated the material from the northern ridge could be used to backfill the pit highwalls rather than hauling in overburden from the West pit stockpile. The pit highwalls have an estimated total length of approximately 800 feet. The Division estimates the East pit disturbance area to cover approximately 2.15 acres. For final reclamation, the material available in the northern ridge can be used as backfill material to grade pit highwalls to 3H:1V or flatter, the pit will need to be backfilled and graded in a manner that creates positive drainage to the north, then this area will need to be retopsoiled and revegetated.

In Area 4 located north of the access road, the stockpiles were removed in 2011/2012 and the area was graded to 3H:1V or flatter. Only low-lying mounds of material remain in this area, which blend in with the surrounding topography. Much of this area has a well-established vegetative cover. However, there are portions of this area which will likely require reseeding in order to achieve successful revegetation. The Division estimates approximately 6.5 acres were disturbed in this area. However, only approximately 3 acres may require reseeding for reclamation.

The majority of Area 1 (located north of the access road in the northeastern portion of the permit area) was released through the Division's approval of Acreage Reduction No. 2 (AR-02) in 2008. This permitting action removed 16.25 acres from Area 1, leaving only a 2.14 acre section along the access road. This remaining section of Area 1 also includes the northern edge of the East pit area. Besides the reclamation required for the East pit (discussed above), no reclamation is required for this area. The existing Co Rd 73 will remain for reclamation.

The Division estimates total disturbance at the site to cover approximately 16.55 acres, including 6.5 acres in Area 4 (stockpiling area north of road), 7.9 acres in Areas 2, 3, 5, and 6 (West pit area south of road), and 2.15 acres in Areas 1 and 2 (East pit area south of road). The estimated reclamation of current disturbance was described above for each of these areas. After conducting this inspection, the Division calculated the required financial warranty for reclaiming the site in accordance with the approved plan. This initial bond estimate was

emailed to the operator and Successor Operator on June 18, 2021. The Successor Operator provided comments on the initial estimate on July 1, 2021, and the Division revised the bond estimate to incorporate some of the operator's suggestions. This revised bond estimate (see enclosed) was provided to the current operator and Successor Operator on July 2, 2021, giving them until July 9, 2021, to submit any additional comments. The Division estimates the required financial warranty for reclaiming the site in accordance with the approved plan to be in the amount of $123,009.00, which is $42,651.00 more than the currently held amount of $80,358.00. It should be noted, the required financial warranty for this site was last calculated in 2003 (for AM-02), which partially explains the significant increase.

After the July 9 deadline, the Division will issue a formal notice to the Successor Operator of the required financial warranty amount for SO-01 approval. The Successor Operator will have 60 days from the date of the notice to submit the required financial warranty. In the event the Successor Operator fails to submit the required financial warranty by the deadline given, the SO-01 will be denied and a notice of surety increase for the same amount will be issued to the current operator.

During the inspection, there was discussion regarding the complex shape of the current approved permit boundary comprised of the six different mine areas with specified acreages. The Successor Operator has plans to submit an Amendment application (after SO-01 approval) to revise the permit area, potentially extending the permit boundary to coincide with the property boundary. The Division agrees this would address any issues that may arise from the current permit boundary, by allowing the operation more room to mine and reclaim the affected lands.

According to the permit file, this site has had consistent issues with diffuse knapweed and Canada thistle, both of which are state-listed noxious weed species. The weed control plan for the site was last revised through Technical Revision No. 4 (approved in 2019) to address this issue. The Division recommends the operator implement the approved weed control plan for the site, especially for any state-listed noxious weed species. If the operator (or Successor Operator) determines the approved weed control plan needs to be revised to better control and manage noxious weeds at the site, this can be done through the submittal of another Technical Revision.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at amy.eschberger@state.co.us.

PHOTOGRAPHS

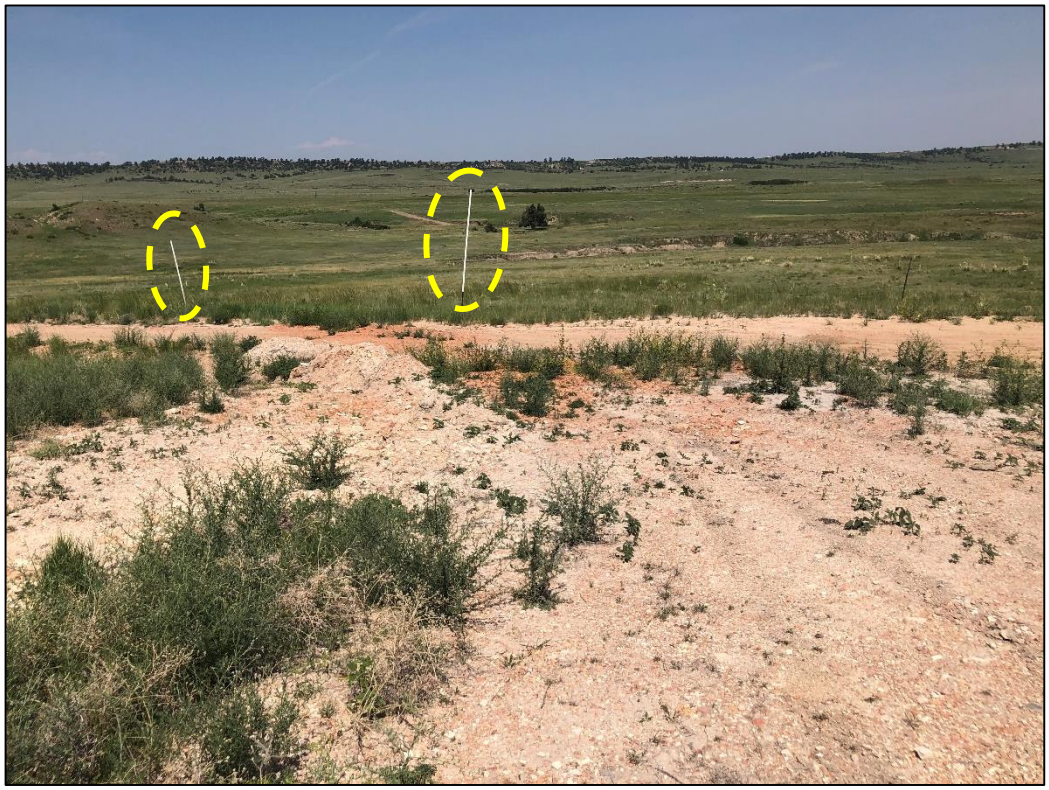

Photo 1. View looking north across western edge of permit area, showing white PVC pipes (circled) marking western permit boundary (north of Co Rd 73).

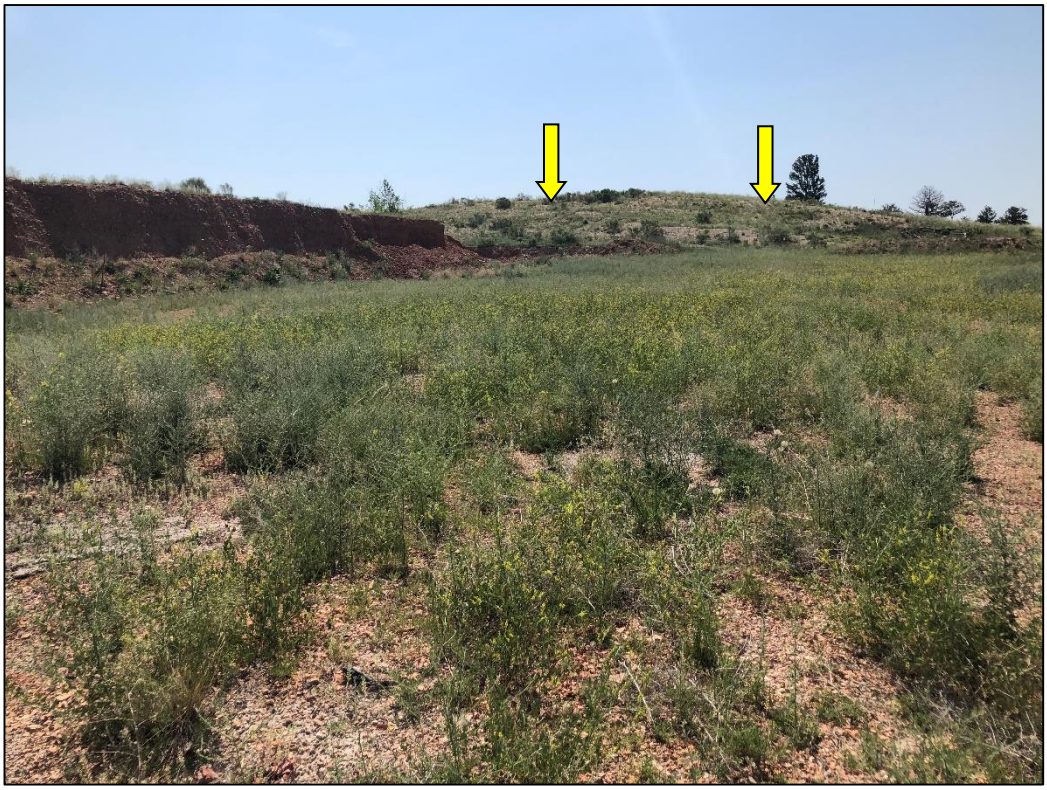

Photo 2. View looking south across western portion of West pit disturbance area, located south of Co Rd 73. Note portion of large overburden stockpile stored along southern edge of this area visible in background (indicated), and portion of large calcine stockpile stored in this area visible at left.

Photo 3. View looking southeast at large calcine stockpile stored in western portion of West pit disturbance area, located south of Co Rd 73.

Photo 4. View looking west across northern portion of West pit disturbance area, located south of Co Rd 73.

Photo 5. View looking south at large overburden stockpile stored in West pit disturbance area. This stockpile appeared to be stable with good vegetative cover.

Photo 6. View looking north across eastern edge of West pit disturbance area.

Photo 7. View looking west across eastern portion of West pit disturbance area.

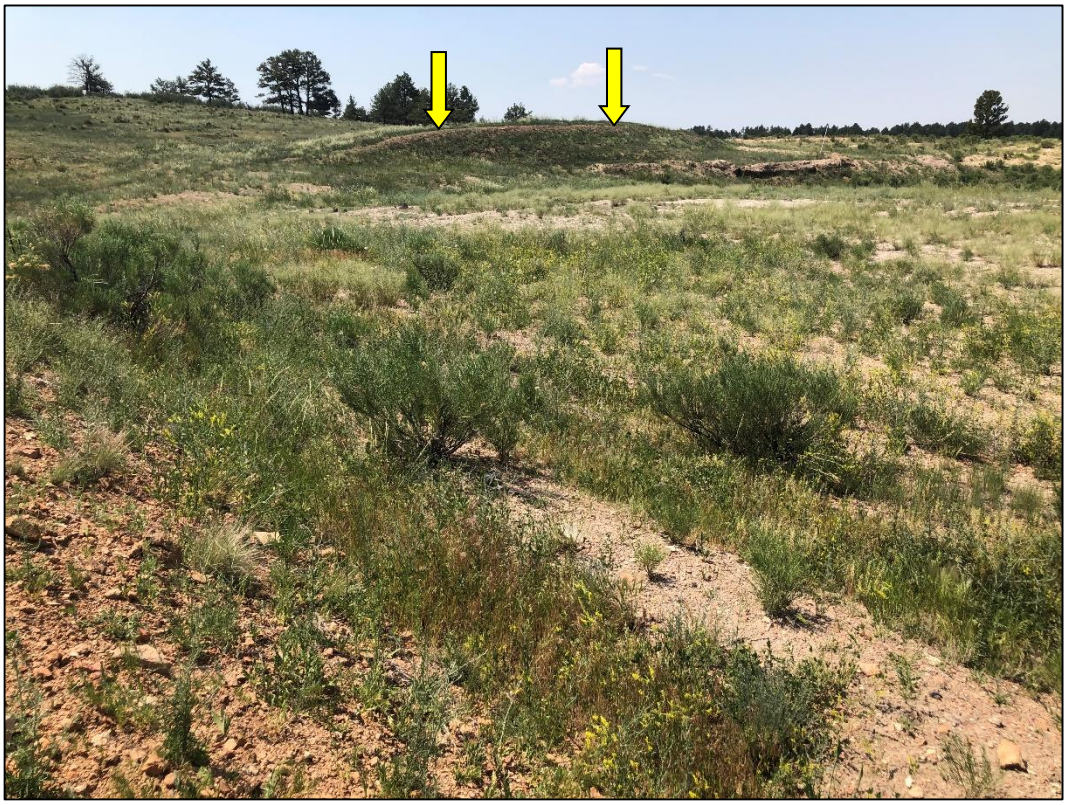

Photo 8. View looking southwest across eastern portion of West pit disturbance area. Note topsoil stockpile stored at southern edge of this area (indicated). This stockpile appeared to be stable with good vegetative cover.

Photo 9. View looking east across eastern portion of West pit disturbance area.

Photo 10. View looking southeast across undisturbed valley located east of West pit. Approximate location of the southern permit boundary (marked by t-posts not visible in this photo) is indicated with a dashed line.

Photo 11. View looking east across undisturbed valley located east of West pit, showing unmined "knob" in background, which separates the West pit and East pit disturbance areas.

Photo 12. View looking northeast across valley located east of West pit. Note section of Co Rd 73 (in background) which is located within the permit area.

Photo 13. View looking southeast at western entrance to East pit. Note portion of unmined ridge visible at left, which can be utilized for highwall backfill material.

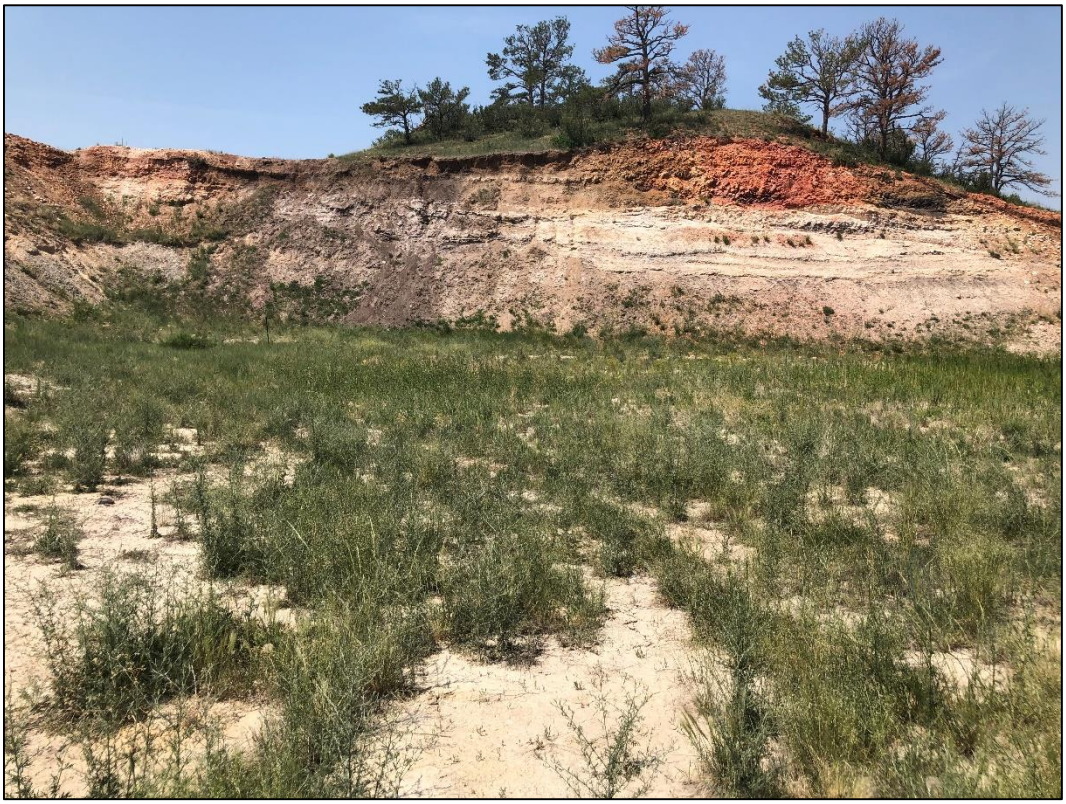

Photo 14. View looking west at western highwall of East pit, approximately 25 feet in height with near vertical slopes.

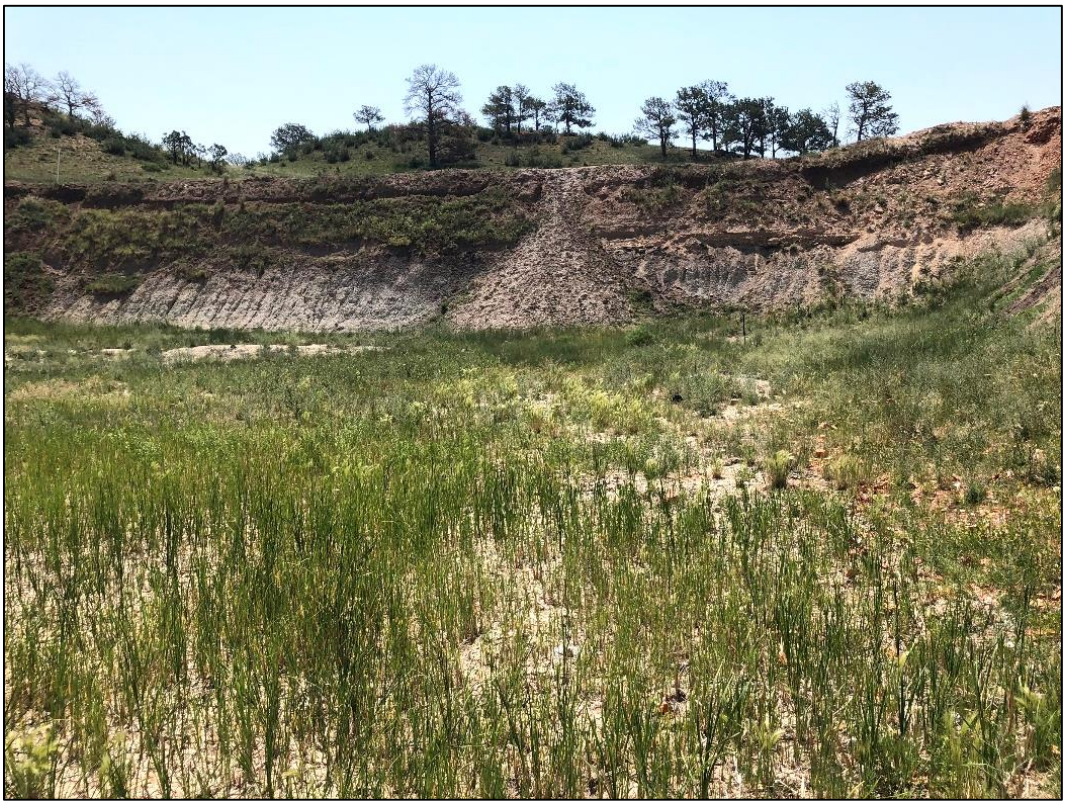

Photo 15. View looking south at southern highwall of East pit, approximately 25 feet in height with near vertical to 1H:1V slopes.

Photo 16. View looking east at eastern highwall of East pit, approximately 15-20 feet in height with near vertical to 1H:1V slopes.

Photo 17. Closer view of eastern highwall of East pit, approximately 15-20 feet in height with near vertical to 1H:1V slopes.

Photo 18. View looking southeast into East pit from its eastern entrance off of Co Rd 73.

Photo 19. View looking north at south face of ridge left along northern edge of East pit. Material from this ridge could be used to backfill pit highwalls.

Photo 20. View looking southeast at east face of ridge left along northern edge of East pit. Material from this ridge could be used to backfill pit highwalls.

Photo 21. View looking west across Area 1 of the permit area, which includes a section of Co Rd 73 and the northern edge of the East pit (ridge along northern edge of pit visible in background).

Photo 22. View looking southeast across eastern permit boundary delineated with white PVC pipes.

Photo 23. View looking northwest across Area 4 of the permit area (north of Co Rd 73), where stockpiles were removed leaving low-lying mounds which blend with surrounding topography. Approximately 3 acres of this area may require reseeding to achieve successful revegetation.

Photo 24. View looking north across Area 4 of the permit area (north of Co Rd 73), where stockpiles were removed leaving low-lying mounds which blend with surrounding topography. Approximately 3 acres of this area may require reseeding to achieve successful revegetation.

Inspection Contact Address

Richard Murphy
The Denver Brick Company
210 Acme St
Denton, TX 76205

Encls: Memorandum to Permit File for Dawson Mine, File No. M-1977-392 Re: Change in permit acreage to correct discrepancy in Division records, dated June 29, 2021
Site map approved with AM-02 in 2003
Site map approved with TR-03 in 2006
Site map approved with AR-02 in 2008
Google Earth image of site showing approximate location of approved permit area
Division's bond estimate for SO-01, revised on 7/2/2021

CC: Jason McGraw, General Shale Brick, Inc.
Harold Stickler, General Shale Brick, Inc.
Sean Austin, The Denver Brick Company
Michael Cunningham, DRMS

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

MEMORANDUM

Date: June 29, 2021

To: Permit File, Dawson Mine, DRMS File No. M-1977-392

From: Amy Eschberger, DRMS

RE: Change in permit acreage to correct discrepancy in Division records

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On June 29, 2021, the Division changed the permit acreage for this site in the permit system from 28.85 acres to 26.10 acres.

This change was made due to a discrepancy found in permit acreage reported during a sequence of revisions for this permit starting in 2003. After researching the permit file, the Division determined the correct permit acreage based on the following revisions:

Amendment (AM-02) approved 6/10/2003: added 7.35 acres to the existing 35 acres
New permit area: 35 acres + 7.35 acres = 42.35 acres

Acreage Reduction (AR-02) approved 4/10/2008: released 16.25 acres
New permit area: 42.35 acres – 16.25 acres = 26.10 acres

Conclusion: Current permit acreage = 26.10 acres

This correction to the permit acreage does not change the actual approved permit area on the ground or the approved permit boundary in any way. It merely corrects the permit acreage in our system to reflect the changes in acreage that were approved through the revisions listed above.

AM-02 map approved in 2003

Permit #: M-1977-392 Confidential?: N
Class: Revision Type-Seq.: AM-02
From: Acme Brick To: DMG
Doc. Name: Exhibit C-Mining Plan Map
Doc. Date (if no date stamp): 6-2-03

0' 100' 200' 300'

35 YEARS 2000

DESCRIPTION	NORTHING	EASTING
300	12077.87	8540.61
301	11690.63	7816.08
302	10830.74	8275.66
303	11217.98	9000.20
304	11503.46	7916.11
305	10996.98	7230.72
306	10556.01	7466.40
307	11062.50	8151.80
308	10580.52	7499.57
309	10758.81	7740.84
310	10167.22	7986.87
311	10167.22	8286.87
312	10615.56	7873.06
313	10303.26	8161.31
314	10870.68	8880.75
315	11091.16	8762.91
BM 99	10000.00	10000.00
BM 100	10044.85	9259.70
BM 101	10478.37	9996.28

State of Colorado Property

Pritchard Property

18.39 ACRES

9.68 ACRES

4.18 ACRES

Amended Acreage

Phase 1 3.24 ACRES

Phase 2 2.22 ACRES

Phase 3 1.82 ACRES

Temp. Road #1

Temp. Road #2

Permit and Affected Land Boundary

Main Haul Road

Stockpile

Culvert

POND

GATE

Cattle Guard

5902.79 METAL POST

5949.36 metal post

5949.48 STAKE METAL

5938.48 PIN FLAG

5924.92 STAKE METAL

5985.32 PIN FLAG

BM 100

BM 101

BM 5951

BM 99

ACME BRICK		
DRAWN KSR	DATE 10/29/02	MINING MAP-Exhibit C DENVER PLANT
APPROVED	DATE	by R.E. Monks C I = 5 feet
SCALE 1" = 100'	SHEET 1	PROJECT NO. Dawson State Lease

by Keith S Roberts
Keith S. Roberts

RECEIVED
JUN 0 2 2003
Division of Minerals and Geology

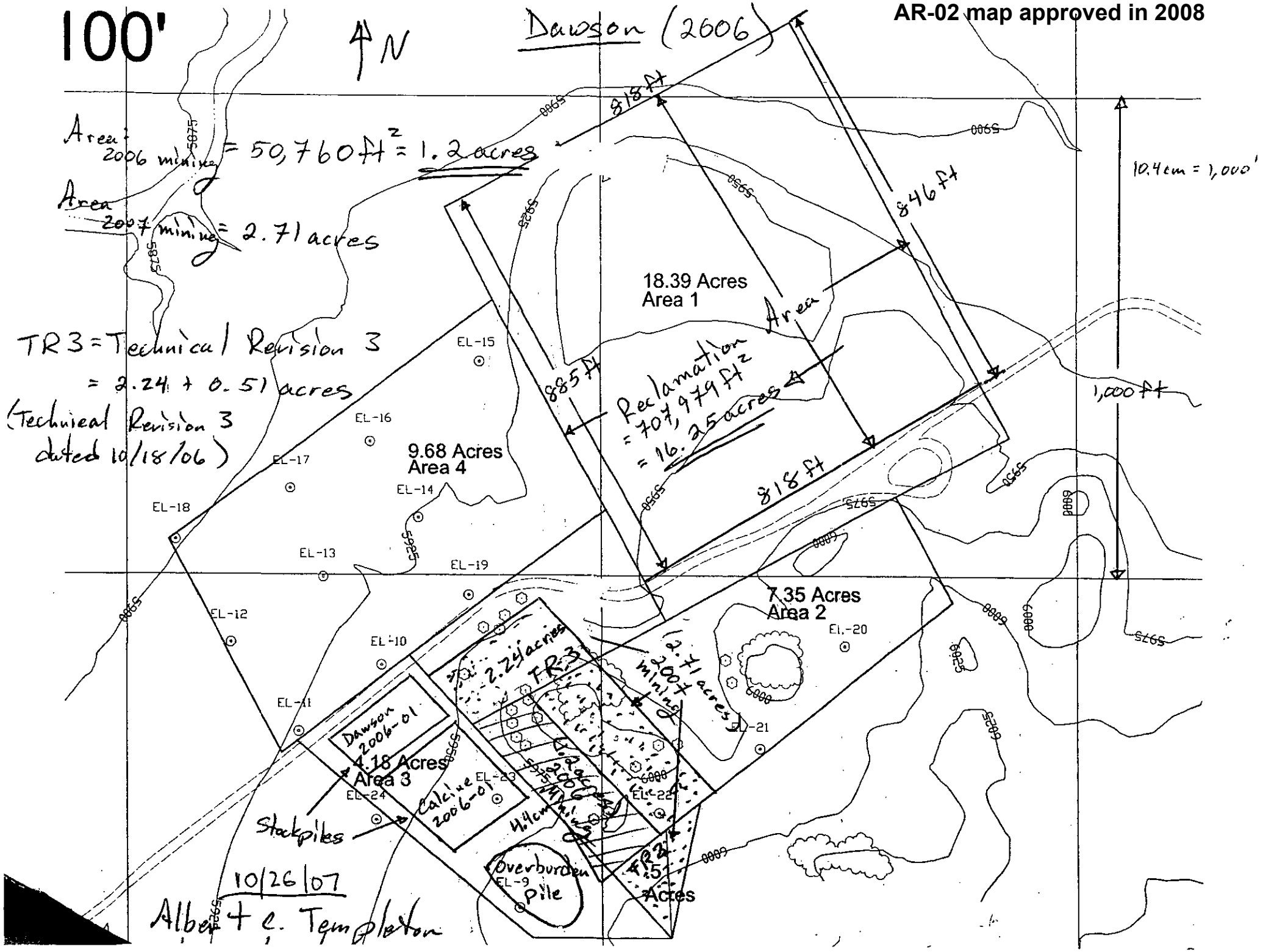
NE1/4,NW1/4,SE1/4,SW1/4 of NE1/4,Sec.10,T8S,R62W, Elbert Co., Colorado
BM 5951, E1/4 Cor.Sec.10-8-62, Big Gulch Quadrangle

TR-03 map approved in 2006


RECEIVED
OCT 23 2006
Division of Reclamation, Mining and Safety
State of Colorado Property
Pritchard Property
ACME BRICK
DRAWN KSR
DATE 10/5/06
APPROVED -----
MINING MAP–Exhibit D – REVISION 1
DENVER PLANT
by R.E. Monks
C I = 5 feet
SCALE 1" = 100'
SHEET 1
PROJECT NO.
Dawson State Lease
REV. 1 ADDED 2.24 Acres
10/5/06 ADDED .51 Acres
TOTAL ACREAGE 42.35 Acres
REV 2 10/23/06 REVISED .51 ACRES
18.39 ACRES
9.68 ACRES
4.18 ACRES
7.35 ACRES
2.24 Acres
.51 ACRES
CORRECTED ACREAGE 10/5/06
METAL POST
metal post
STAKE METAL
PIN FLAG
Stockpile
TOPSOIL STOCKPILE
ROAD
Cattle Guard
Culvert
POND
GATE
35 YEARS
2000
NE1/4,NW1/4,SE1/4,SW1/4 of NE1/4,Sec.10,T8S,R62W, Elbert Co., Colorado
BM 5951, E1/4 Cor.Sec.10-8-62, Big Gulch Quadrangle

DESCRIPTION	NORTHING	EASTING
300	12077. 87	8540. 61
301	11690. 63	7816. 08
302	10830. 74	8275. 66
303	11217. 98	9000. 20
304	11503. 46	7916. 11
305	10996. 98	7230. 72
306	10556. 01	7466. 40
307	11062. 50	8151. 80
308	10580. 52	7499. 57
309	10758. 81	7740. 84
310	10167. 22	7986. 87
311	10167. 22	8286. 87
312	10615. 56	7873. 06
313	10303. 26	8161. 31
314	10870. 68	8880. 75
315	11091. 16	8762. 91
BM 99	10000. 00	10000. 00
BM 100	10044. 85	9259. 70
BM 101	10478. 37	9996. 28

Permit # M-1977-392 Confidential? N
Class Revision Type Seq TR-3
MV# Inspection Date
Doc Date (if no date stamp) 3/23/06
Doc Name Corrected map
From Denver Brick
To **DRMS/Other**
Recipients CMR, AJW


AR-02 map approved in 2008
100'
N
Dawson (2006)
Area 2006 mining = 50,760 ft² = 1.2 acres
Area 2007 mining = 2.71 acres
TR3 = Technical Revision 3
= 2.24 + 0.51 acres
(Technical Revision 3 dated 10/18/06)
818 ft
846 ft
885 ft
818 ft
10.4cm = 1,000'
1,000 ft
18.39 Acres
Area 1
Area
Reclamation
= 707,979 ft²
= 16.25 acres
9.68 Acres
Area 4
7.35 Acres
Area 2
2.24 acres
TR3
2.71 acres
2007 mining
Dawson 2006-01
4.18 Acres
Area 3
Calcine 2006-01
Stockpiles
Overburden Pile
4.5 Acres
EL-9
EL-10
EL-11
EL-12
EL-13
EL-14
EL-15
EL-16
EL-17
EL-18
EL-19
EL-20
EL-21
EL-22
EL-23
EL-24
10/26/07
Albert C. Templeton

M-1977-392 / Dawson Mine / The Denver Brick Company (112c)

Red Outline = 26.1 acres = Approved Permit Area (location approximated based on permit maps)
Yellow Line = 800 feet = Approximate Length of Highwall (as of 6/17/2021 inspection)
(Image data from 6/13/2017)

COST SUMMARY WORK

Task description: **Cost Summary**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-000
User: AME

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Push down material for East pit backfill	DOZER	1	52.13	$16,093
002	Backfill East pit highwalls	DOZER	1	46.34	$14,307
003b	Transport topsoil to East pit	SCRAPER1	1	6.55	$4,320
004b	Spread topsoil on East pit area - 2.15 ac	DOZER	1	3.19	$985
005	Revegetate East pit area - 2.15 ac	REVEGE	1	2.15	$3,529
006	Rip West pit/stockpile area - 7.9 ac	RIPPER	1	12.41	$2,348
007	Retopsoil West pit/stockpile area - 7.9 ac	SCRAPER1	1	7.08	$6,930
008	Revegetate West pit/stockpile area - 7.9 ac	REVEGE	1	7.90	$12,968
009	Interseed stockpile area North of access road	REVEGE	1	3.00	$4,730
010	Mobilization/Demobilization	MOBILIZE	1	17.33	$29,779
		SUBTOTALS:		**158.08**	**$95,989**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$1,939
Performance bond:	1.05	Total =	$1,008
Job superintendent:	50.00	Total =	$3,602
Profit:	10.00	Total =	$9,599
		TOTAL O & P =	$16,147
		CONTRACT AMOUNT (direct + O & P) =	$112,136

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$4,766
Reclamation management and/or administration:	5.00		$5,607
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$27,020
		TOTAL BOND AMOUNT (direct + indirect) =	**$123,009**

BULLDOZER WORK

Task description: **Push down material for East pit backfill**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-001
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$126.01	NA
Operating Cost/Hour:	$141.41	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $308.72
Total Fleet Cost/Hour: **$308.72**

MATERIAL QUANTITIES

Initial Volume: 17,778
Swell factor: 1.250
Loose volume: **22,223** LCY

Source of estimated volume: Use material from hill at north edge of pit
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 250 feet
Unadjusted hourly production: 546.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 5,980 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	1.000	(EXCL.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7808

Adjusted unit production: 426.32 LCY/hr
Adjusted fleet production: **426.32** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.724/LCY

Total job time: **52.13** Hours
Total job cost: **$16,093**

BULLDOZER WORK

Task description: **Backfill East pit highwalls**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-002
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$126.01	NA
Operating Cost/Hour:	$141.41	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $308.72
Total Fleet Cost/Hour: **$308.72**

MATERIAL QUANTITIES

Initial Volume: 17,778
Swell factor: 1.000
Loose volume: **17,778** LCY

Source of estimated volume: Use material from hill at north edge of pit, 20'H x 800'L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 250 feet
Unadjusted hourly production: 546.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 5 %
Average site altitude: 5,980 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	1.000	(EXCL.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7026

Adjusted unit production: 383.62 LCY/hr
Adjusted fleet production: **383.62** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.805/LCY

Total job time: **46.34** Hours
Total job cost: **$14,307**

SCRAPER TEAM WORK

Task description: **Transport topsoil to East pit**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 003B State: Colorado Abbreviation: None
Date: 7/2/2021 County: Elbert Filename: M392-003b
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	Cat D6T LGP
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	100	NA	50	50
Ownership cost/hour:	$147.77	NA	$66.27	NA	$85.80	$11.70
Operating cost/hour:	$141.36	NA	$66.34	NA	$30.20	$9.00
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	$0.00	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	NA	$0.00	NA	$0.00	$0.00
Operator cost/hour:	$30.90	NA	$41.30	NA	$28.56	$0.00
Unit Subtotals:	$320.03	NA	$173.91	NA	$144.56	$20.70
Number of Units:	1	0	1	0	1	1
Group Subtotals:	Work:	$320.03	Support:	$173.91	Maint:	$165.26

Total work team cost/hour: **$659.20**

MATERIAL QUANTITIES

Initial volume: 1,735 CCY Swell factor: 1.215
Loose volume: **2,108** LCY

Source of estimated volume: Replace 6 in on 2.15 ac, 1800 ft haul
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 24.00 LCY
Heaped Volume: 34.00 LCY
Average Volume: 29.00 LCY
Adjusted Capacity: **29.00** LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5980 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1800.00	5.00	3.00	8.00	783	2.32

Haul Time: **2.32** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1800.00	-5.00	3.00	-2.00	2920	0.67

Return Time: **0.67** minutes

Total Scraper team cycle time: **4.49** minutes
Adjusted for job conditions: 321.65 LCY/Hour
Selected Number of Scrapers: 1 Scraper(s)
Adjusted single scraper team (unit) hourly production: 321.65 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **321.65** LCY/Hour

Unadjusted unit production/hour: 387.53 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **6.55** Hours

Unit cost: $2.049 /LCY Total job cost: **$4,320**

BULLDOZER WORK

Task description: **Spread topsoil on East pit area - 2.15 ac**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #:	004B	State:	Colorado	Abbreviation:	None
Date:	7/2/2021	County:	Elbert	Filename:	M392-004b
User:	AME				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D9T - 9SU
Horsepower:	405
Blade Type:	Semi-Universal
Attachment:	NA
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$126.01	NA
Operating Cost/Hour:	$141.41	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $308.72
Total Fleet Cost/Hour: **$308.72**

MATERIAL QUANTITIES

Initial Volume:	1,735
Swell factor:	1.000
Loose volume:	**1,735** LCY

Source of estimated volume: Replace 6 inches on 2.15 ac
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 250 feet
Unadjusted hourly production: 546.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 5 %
Average site altitude: 5,980 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	1.000	(EXCL.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.700	(FND-MF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9959

Adjusted unit production: 543.76 LCY/hr
Adjusted fleet production: **543.76** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.568/LCY

Total job time: **3.19** Hours
Total job cost: **$985**

REVEGETATION WORK

Task description: **Revegetate East pit area - 2.15 ac**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-005
User: AME

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	150.00	pound	$0.36	$54.00
Triple superphosphate, 0-46-0	110.00	pound	$0.46	$50.60
			Total Fertilizer Materials Cost/Acre	**$104.60**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$38.77
Total Fertilizer Application Cost/Acre	**$38.77**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$114.56
Weed control spraying (MEANS 31 31 16.13 3100)	$290.40
Total Tilling Cost/Acre	**$404.96**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	2.50	8.09	$22.19
Sideoats Grama - Butte	1.80	5.91	$16.20
Pubescent Wheatgrass - Luna	3.60	7.44	$12.24
Western Wheatgrass - Arriba	6.40	16.16	$41.60
Totals Seed Mix	14.30	37.60	**$92.23**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	$2.98	$2.98
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	$307.02	$460.53
Total Mulch Materials Cost/Acre				**$463.51**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$71.57
Power mulcher (MEANS 32 91 13.16 0350)	$106.29
Weed spray, truck, non-aquatic area, nox. [DMG]	$62.72
Total Mulch Application Cost/Acre	**$240.58**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 2.15
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,576.65
Cost /Acre*: $324.23

Initial Job Cost: **$3,389.80**
Reseeding Job Cost: **$139.42**
Total Job Cost: **$3,529**
Job Hours: **2.15**

BULLDOZER RIPPING WORK

Task description: **Rip West pit/stockpile area - 7.9 ac**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-006
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D6T LGP Horsepower: 200
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$66.27	NA
Operating Cost/Hour:	$66.34	100
Ripper Ownership Cost/Hour:	$9.32	NA
Ripper Operating Cost/Hour:	$5.93	100
Operator Cost/Hour:	$41.30	NA
Total Unit Cost/Hour:	$189.16	

Total Fleet Cost/Hour: **$189.16**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 7.90 acres Rip Depth (ft): 1.50 Volume: 19,118 BCY or CCY

Source of estimated quantity: DRMS

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	1.64	feet/pass
Average Ripping Width:	6.58	feet/pass
Average Ripping Length:	550.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.767	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.767 Acres/hr

Site Altitude:	5,980	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.64 Acres/hr
Adjusted Hourly Fleet Production: **0.64** Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **12.41** Hours

Unit cost: $297.175 Per acre Total job cost: **$2,348**

SCRAPER TEAM WORK

Task description: **Retopsoil West pit/stockpile area - 7.9 ac**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-007
User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	Cat D6T LGP
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	100	NA	50	50
Ownership cost/hour:	$147.77	NA	$66.27	NA	$85.80	$11.70
Operating cost/hour:	$141.36	NA	$66.34	NA	$30.20	$9.00
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	$0.00	NA	$0.00	$0.00
Ripper op. cost/hour:	NA	NA	$0.00	NA	$0.00	$0.00
Operator cost/hour:	$30.90	NA	$41.30	NA	$28.56	$0.00
Unit Subtotals:	$320.03	NA	$173.91	NA	$144.56	$20.70
Number of Units:	2	0	1	0	1	1
Group Subtotals:	Work:	$640.06	Support:	$173.91	Maint:	$165.26

Total work team cost/hour: **$979.23**

MATERIAL QUANTITIES

Initial volume: 6,373 CCY Swell factor: 1.215
Loose volume: **7,743** LCY

Source of estimated volume: Replace 6 in on 7.9 ac
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 24.00 LCY
Heaped Volume: 34.00 LCY
Average Volume: 29.00 LCY
Adjusted Capacity: **29.00** LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5980 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	650.00	5.00	3.00	8.00	783	0.85

Haul Time: **0.85** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	650.00	-5.00	3.00	-2.00	2920	0.29

Return Time: **0.29** minutes

Total Scraper team cycle time: **2.64** minutes
Adjusted for job conditions: 547.05 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,094.09 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,094.09** LCY/Hour

Unadjusted unit production/hour: 659.09 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **7.08** Hours

Unit cost: $0.895 /LCY Total job cost: **$6,930**

REVEGETATION WORK

Task description: **Revegetate West pit/stockpile area - 7.9 ac**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-008
User: AME

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	150.00	pound	$0.36	$54.00
Triple superphosphate, 0-46-0	110.00	pound	$0.46	$50.60
			Total Fertilizer Materials Cost/Acre	**$104.60**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$38.77
Total Fertilizer Application Cost/Acre	**$38.77**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$114.56
Weed control spraying (MEANS 31 31 16.13 3100)	$290.40
Total Tilling Cost/Acre	**$404.96**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	2.50	8.09	$22.19
Sideoats Grama - Butte	1.80	5.91	$16.20
Pubescent Wheatgrass - Luna	3.60	7.44	$12.24
Western Wheatgrass - Arriba	6.40	16.16	$41.60
Totals Seed Mix	14.30	37.60	**$92.23**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	$2.98	$2.98
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	$307.02	$460.53
Total Mulch Materials Cost/Acre				**$463.51**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$71.57
Power mulcher (MEANS 32 91 13.16 0350)	$106.29
Weed spray, truck, non-aquatic area, nox. [DMG]	$62.72
Total Mulch Application Cost/Acre	**$240.58**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 7.9
Estimated Failure Rate: 20%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,576.65
Cost /Acre*: $324.23

Initial Job Cost: **$12,455.54**
Reseeding Job Cost: **$512.28**
Total Job Cost: **$12,968**
Job Hours: **7.90**

REVEGETATION WORK

Task description: **Interseed stockpile area North of access road**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 009 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-009
User: AME

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	150.00	pound	$0.36	$54.00
Triple superphosphate, 0-46-0	110.00	pound	$0.46	$50.60
			Total Fertilizer Materials Cost/Acre	**$104.60**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$38.77
Total Fertilizer Application Cost/Acre	**$38.77**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$114.56
Weed control spraying (MEANS 31 31 16.13 3100)	$290.40
Total Tilling Cost/Acre	**$404.96**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	2.50	8.09	$22.19
Sideoats Grama - Butte	1.80	5.91	$16.20
Pubescent Wheatgrass - Luna	3.60	7.44	$12.24
Western Wheatgrass - Arriba	6.40	16.16	$41.60
Totals Seed Mix	14.30	37.60	**$92.23**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	$2.98	$2.98
Straw, delivered {MEANS 31 25 14.16 1200}	1.50	TON	$307.02	$460.53
Total Mulch Materials Cost/Acre				**$463.51**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$71.57
Power mulcher (MEANS 32 91 13.16 0350)	$106.29
Weed spray, truck, non-aquatic area, nox. [DMG]	$62.72
Total Mulch Application Cost/Acre	**$240.58**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 3
Estimated Failure Rate: 0%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,576.65
Cost /Acre*: $324.23

Initial Job Cost: **$4,729.95**
Reseeding Job Cost: **$0.00**
Total Job Cost: **$4,730**
Job Hours: **3.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization/Demobilization**

Site: **Dawson Mine** Permit Action: SO-01 2021 Permit/Job#: M1977392

PROJECT IDENTIFICATION

Task #: 010 State: Colorado Abbreviation: None
Date: Rev 7/2/2021 County: Elbert Filename: M392-010
User: AME

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$21.28	$37.94	$47.67
Operating Cost/Hour:	$26.55	$50.48	$56.21
Operator Cost/Hour:	$20.54	$20.54	$20.54
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$68.37	$132.49	$147.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D9T - 9SU	60.01	$126.01	$147.95	1	$273.96	$147.95	$250.00
Cat D6T LGP	26.87	$66.27	$132.49	1	$198.76	$132.49	$250.00
Cat D6T LGP	28.63	$75.59	$132.49	1	$208.08	$132.49	$250.00
Cat 631G	52.50	$147.77	$147.95	2	$591.44	$295.90	$500.00
CAT 14M	23.57	$85.80	$68.37	1	$154.17	$68.37	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$7.98	$68.37	1	$76.35	$68.37	$250.00
Power Mulcher (Bowie LD-90)	6.00	$14.98	$68.37	1	$83.35	$68.37	$250.00
Subtotals:					**$1,586.11**	**$913.94**	**$2,000.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	$29.70	1	$29.70	$29.70
Subtotals:			**$29.70**	**$29.70**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	AURORA	
Total one-way travel distance:	60.00	miles
Average Travel Speed:	45.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$29,700.12
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$79.20

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.33	1.33
Return Time (Hours):	1.33	1.33
Loading Time (Hours):	3.00	NA
Unloading Time (Hours):	3.00	NA
Subtotals:	8.67	2.67

JOB TIME AND COST

Total job time:	**17.33**	Hours
Total job cost:	**$29,779**	