



STATE OF  
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

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## Colorado Gravel LLC Pit M2022-053 Fourth Adequacy Review Package

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**PFM Consulting** <pfmconsultingcompany@gmail.com>

Wed, Aug 23, 2023 at 9:37 AM

To: Amy Eschberger - DNR <amy.eschberger@state.co.us>, "Gagnon - DNR, Nikie" <nikie.gagnon@state.co.us>

Cc: Ron Peterson <ron@rocktran.com>

Good morning, Amy and Nikie.

Please see the attachments for the Fourth Adequacy Response.

Thank you,

**Jodi Schreiber, Owner**

**PFM Consulting LLC**

**719-529-0916**

[pfmconsultingcompany@gmail.com](mailto:pfmconsultingcompany@gmail.com)

[PFM Consulting Website](#)

***"Success is stumbling from failure to failure with no loss of enthusiasm."***

**-Winston Churchill**

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### 7 attachments



**Third Adequacy Review Response 8.22.23.pdf**

44K



**Updated Mining and Reclamation Plan 8.22.2023.pdf**

291K



**Prowers County Clerk Email Receipt 8.23.2023.pdf**

130K



**Legal R8.pdf**

644K



**Rec Map R10.1.pdf**

2679K



**Existing Map R9.pdf**

716K



**Mining R10.pdf**

653K



## PFM Consulting LLC

Colorado Division of Reclamation, Mining and Safety  
Attn: Nikie Gagnon  
1313 Sherman Street, Room 215  
Denver, CO 80203

RE: Colorado Gravel LLC Pit M2022-053, Fourth Adequacy Review Response

August 22, 2023

Ms. Gagnon,

Thank you for taking the time to review the Special Operations 112 Reclamation permit package for the Colorado Gravel LLC Pit M2022-053.

1. The total permit boundary and maximum affected/disturbed acreage is 54.5 acres. There is 19.5 acres of buffer throughout the site and shown and described on the map and mining plan revision.
2. The maximum active mine area will be 10 acres. The total mine area is 35 acres.
3. The DWR website at times does not accurately locate wells onsite. The website data was used to prepare the maps for this permit. Upon speaking with the landowner, the correct location of the well has been ascertained and corrected on the map. It is located within the permit boundary.
4. Please see the attached, updated mining plan map.
5. Please see the attached, updated reclamation plan map.
6. Please see the attached, updated mining plan.
7. Please see the attached, updated reclamation plan.
8. Colorado Gravel commits to providing the well data when it is available.
9. Please see the enclosed receipt email from the Prowers County Clerk that the updated items were submitted to their office for public review.



## PFM Consulting LLC

If additional information is needed to complete the adequacy review, please let me know and I will get the information submitted for review.

Warm Regards,

*Jodi Schreiber*

Jodi Schreiber, Owner  
PFM Consulting LLC

## 6.4.1 Exhibit A

### Legal Description

The Colorado Gravel LLC Pit is currently located 38.087328° , -102.310718°. The pit will be accessed from Colorado Highway 385 approximately 1.35 miles north of Granada in Prowers County. The site is approximately 54.5 acres and is described by the following legal description:

NW ¼ of the SE ¼ of Section 36, Township 22S, Range 44W

Entrance: 38.087328° , -102.310718°

## 6.4.4 Exhibit D

### Mining Plan

The Colorado Gravel LLC Pit is a new site that will span 54.5 acres with a maximum affected/disturbed area of 54.5 acres. There is a 8.57-acre mining buffer along the northern and western portions of the pit boundary that will be unmined. The 4.63-acre buffer in the northeast portion of the site will not be mined at the present time, but may be added in the future with a Technical Revision. There is a 6.3-acre buffer area located on the mine map that will be affected but unmined and will be used for the scales, stockpiles, etc. This area is located on the mine map and includes the southern portion of the permit boundary from the North Granada Ditch to where the structures and home are located. Maximum active mining will disturb only 10 acres. The total mine area is 35 acres. The pit will be mined with a highwall that will not exceed 700 feet and reclaimed to a 3H:1V slope. The site is anticipated to operate more than 180 days per year.

Colorado Gravel LLC commits to not mine the 400-foot mining buffer to the north of the permit boundary along the Arkansas River until a Technical Revision addressing pit slope stabilization and flood protection measures is approved. The only disturbance in this area will be the dewatering ditch described below. There is a 50' buffer on the west side of the permit boundary for the electric line and a 50' buffer on the south side of the permit boundary for the North Granada Ditch.

The target gravel source is located beneath limited topsoil and overburden. The primary commodities are sand and gravel. Incidental materials not used for construction material will be used to reconstruct the pit floor and lessen the pit slopes.

The site is made up of mostly Rocky Ford, clay substratum and clay loam, as well as Las clay loam. The target gravel source is located beneath limited topsoil of 0-6 inches and overburden of an additional 10 feet. Topsoil, overburden and waste material will be saved for reclamation of the mine site. The stratum beneath the deposit is presumed to be sandstone, shale or conglomerate or a combination thereof. The primary commodities are sand and gravel. Incidental materials not used for construction material will be used to reconstruct the pit floor and lessen the pit slopes.

The life of the proposed operation is speculative due to ever changing economic conditions in the construction industry. If economic demands remain low and extraction is limited to 70,000 tons per year, approximately six acres per year would be mined. At this rate, the life of the mine would extend to approximately 9 years.

Mining will proceed from the southern end of the pit and will move north and east. The residential area noted on the map will not be mined and is located within a buffer area. Extracted material will be moved to the processing area that is anticipated to be in the southern portion of the pit, denoted on the map. Earthmoving will be accomplished using bulldozers, front end loaders and/or scrapers depending on the depth of plant growth material and overburden. Aggregate will be processed and sized using a crusher and screens. A portable asphalt or concrete batch plant may be onsite as projects warrant.

All plant growth material and topsoil will be salvaged and stockpiled for reclamation use. These stockpiles will be located at the perimeter of the site and posted as reclamation topsoil. Waste rock and overburden will be stockpiled and used to rebuild the pit floor and slopes during reclamation. Overburden perimeter stormwater diversion berms will be constructed as excavation and reclamation progresses. These berms will serve to control erosion and sedimentation from reaching any drainage. Water for dust suppression will be purchased from a local source and hauled onsite.

Bulk storage of fuel and small amounts of lubricants will be stored onsite and will be housed in an earthen berm that will have a capacity of at least 110% of the tanks and containers to be housed.

Mining will develop a gravel pit to a depth of up to 40 feet. Groundwater is expected to be encountered during excavation and mining. Water will be pumped from the facility with surface water onsite not exceeding 10 acres. This water will then be pumped from the mine area to a ditch on the east side of the permit boundary. The water will then flow to the Arkansas River, where it will be discharged at a rate equal to that of the pump. At this time, the rate of that release is unknown. If, after the discharged water tests show that the water needs to be pumped into a settling pond prior to being released into the Arkansas due to the Division of Water Resource requirements, a settling pond will be built in which the water from the mine site will be stored to settle out any solids prior to release. When the pond is constructed along the Arkansas, Colorado Gravel LLC will follow any guidelines given by FEMA and Prowers County for flood protection/bank stability requirements. With operations such as this, recommendations such as placing stockpiles in such a way as to not impede flood waters and fastening to the ground any buoyant objects, i.e. porta potties, is common. We have submitted these two measures, as well as an employee evacuation plan to Prowers County for their approval and incorporation into the Special Use Permit.

The operation will wash material onsite and will utilize water from an adjudicated well onsite. Water will be used with a wash plant to wash sand onsite. Two wash ponds will be constructed and the water will be recirculated for continual use. This operation will consume approximately 20-acre feet of water each year.

No acid or toxic producing materials will be exposed during mining. No explosives will be used in conjunction with mining or reclamation.

The proposed mining operation will consist of an access road from the west side of the site. The access road will be 40' wide. The Colorado Department of Transportation has granted two Access Permits for this site. They attached for review and details CDOTs requirements for the road where it intersects State Highway 385, including the drainage structures. These roads will remain in place following reclamation. The northern most access will be used exclusively for this site. All interior haul roads will be temporary and will be reclaimed after the mining has been completed. It is estimated that the life of the pit is 8-10 years and is dependent upon demand.

This is a privately owned site and does not require the State Historic Preservation Office requirements for a cultural or historic study. If the operator encounters any structure of note, the State Historic Preservation Office will be notified.

## 6.4.5 Exhibit E

### Reclamation Plan

Reclamation to cropland will occur following mining at the site. A 10-acre pond will remain on the north end of the site using available water shares for augmentation purposes.

Slopes will be returned to a 3H:1V slope or flatter when mining has concluded, thus allowing for reclamation to immediately follow mining as the site progresses. Pond slopes will be 3H:1V from 5 feet above to 10 feet below expected static water line. It will be no steeper than 2H:1V below that. As topsoil, waste rock and overburden are removed from the working face, they will be stockpiled for future reclamation use. Throughout mining, slopes will be maintained at a 3H:1V minimum, except for the active mine face of no more than 700 feet. Waste rock and overburden from the mine area will be placed on the pit floor two feet above static water as mining progresses. Six inches of topsoil will be replaced on affected surfaces. If necessary, surfaces will be roughened prior to seeding. All materials used for backfilling will be generated from onsite sources. Onsite topsoil will be adequate for reclamation purposes. No importation of materials for reclamation purposes will be necessary. All disturbed areas, including the processing area, will have all stockpiles and mobile equipment removed. The area will be backfilled to a 3H:1V or shallower and the surface will be scarified. Following that, six inches of topsoil will be replaced on affected surfaces and then the site will be reseeded with the forage grass listed above.

Colorado Gravel LLC will use the below seed mix at a rate of 8 PLS per acre. The seed will be drilled at ¼" to ½" in depth and straw mulch will be crimped in at 2 tons per acre.

The Cropland Seed mix would contain Forage Grass, Teff, Sand Jose Wheatgrass, and an Orchard Grass Mixture. Hard Red Winter Wheat may also be an option for this site.

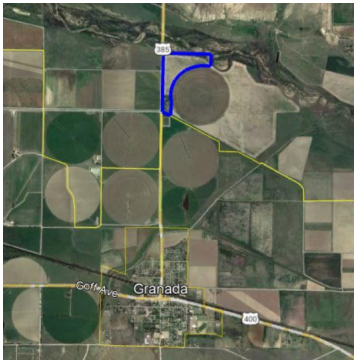
All mining structures, including interior haul roads and stormwater diversion structures, will be reclaimed following all mining operations. All buildings that are brought in for the project are portable control vans and will be removed following reclamation. The home and outbuildings onsite may be removed upon the owner's request as the site develops. The main access road from Highway 385 will remain. The 10-acre pond will remain following reclamation and will be outside the 400-foot buffer from the Arkansas River.

Throughout the mining area, salvageable surface material will be removed and stockpiled for use in final reclamation. Upon commencement of reclamation, the area will be monitored for noxious weeds. Colorado Gravel LLC will implement appropriate methods to manage weed growth and will work with Prowers County Weed Control Program for recommendations in the event noxious weeds develop.



**Colorado Gravel LLC Pit  
Legal Description Exhibit A/B**

Map By James Higgs  
Colorado Gravel LLC  
7/17/23



- NAD 83 Coordinates**
- 1) 38.093007°-102.310153°
  - 2) 38.092958°-102.303093°
  - 3) 38.091497°-102.303150°
  - 4) 38.091536°-102.304705°
  - 5) 38.091333°-102.305908°
  - 6) 38.090949°-102.307093°
  - 7) 38.090390°-102.307954°
  - 8) 38.089726°-102.308690°
  - 9) 38.089074°-102.309072°
  - 10) 38.088532°-102.309273°
  - 11) 38.087977°-102.309352°
  - 12) 38.087451°-102.309300°
  - 13) 38.086838°-102.309184°
  - 14) 38.085325°-102.309342°
  - 15) 38.085755°-102.310634°
  - 16) 38.092493°-102.310617°

**Legal Description**  
W 1/2 of SE 1/4, NE 1/4 of SE 1/4 of  
S36 T22S R44W

Land Owner:  
Enstrom Bristol  
Properties LLC

Land Owner: Sharon  
& Michael Winters

Land Owner:  
William L  
Swafford JR

Land Owner:  
KICT LLC  
A Delaware LLC

Land Owner:  
William L  
Swafford JR

Land Owner:  
KICT LLC  
A Delaware LLC

Approx. Pit Entrance  
38.085911°-102.310627°

Land Owner:  
GP Irrigation  
Farms LLC  
A CO LLC

Land Owner:  
KICT LLC  
A Delaware LLC

Arkansas River

Permit Boundaries  
(54.5 acres)

- Notes:**
- 1) All mining operations will have a 50' setback from any utilities or man made structures.
  - 2) The mining operations will have a 50' setback from the North Granada Ditch.
  - 3) Entire permit Boundary is in the 100 yr flood zone.

**Scale**  
660'-0"



## House Detail



Land Owner: Enstrom  
Bristol Properties LLC

Land Owner: Sharon &  
Michael Winters

Arkansas River

Old House Foundation  
(Owned by William  
Swafford JR)

Kiowa County Road HH 3/10

This well is past 200' from Permit Boundaries  
Well Constructed 8942-  
Receipt = 9092832  
Permit = 8942-  
Well Name =  
Applicant = SCHLAGER, JOHN E

Land Owner: William  
L Swafford JR

See House Detail

Well Constructed 18252-R  
Receipt = 9093188  
Permit = 18252-R  
Well Name =  
Applicant = KICT LLC (OSBORN, WILLIAM)  
Case No =  
Aquifers = ALL UNNAMED AQUIFERS  
Uses = Irrigation  
Yield =  
Well Depth = 65

Kiowa County Road HH

## Legend

- Permit Boundary (54.5 Acres)
- Existing Fence Line
- 10' Existing Contours
- Existing Road
- Gas Line (Atmos)
- Telecommunications (Century Link)
- Power Line (Lamar Light And Power)
- Concrete Ditch
- Metal Culvert (cdot)
- Well

Map By James Higgs  
Colorado Gravel LLC  
8/16/23



Land Owner: GP  
Irrigation Farms LLC  
A CO LLC

Existing Access Road  
38.085911°-102.310627°

This well is past 200' from Permit Boundaries  
Well Constructed 6795-F  
Receipt = 9092794  
Permit = 6795-F  
Well Name =  
Applicant = KICT LLC (OSBORN, WILLIAM)

Land Owner: KICT  
LLC  
A Delware LLC

Land Owner:  
KICT LLC  
A Delware LLC

Center Pivot

## Notes:

- 1) All mining operations will have a 50' setback from any utilities or man made structures.
- 2) The mining operations will have a 50' setback from the North Granada Ditch.
- 3) Entire permit Boundary is in the 100 yr flood zone.

Scale

← 660'-0" →

**Colorado Gravel LLC Pit  
Existing Conditions  
Exhibit C**



# Colorado Aggregate Pit Mining Map Exhibit D

Map By James Higgs  
Colorado Aggregate LLC  
8/17/23

*[Signature]*

Land Owner: Enstrom  
Bristol Properties LLC

Land Owner:  
Sharon & Michael  
Winters

Arkansas River

Permit Boundaries  
(54.5. acres)

Potential Settling Pond

Dewatering Ditch/Pipe line

Stockpile of Topsoil/Erosion Berm

Stockpile of Overburden/Erosion Berm

Approximately 10  
Acres Mining Area

Approx. Wash Ponds

Land Owner:  
KICT LLC  
A Delaware LLC

Land Owner:  
William L  
Swafford JR

Approximately 10 acres  
Processing/stockpile  
Area

40' Gravel Haul Road

Approx. Pit Entrance  
38.087328°-102.310718°

This 6.3 acres will be  
disturbed and used for  
scales, stockpiles, ect,

19.5 Acres of Non Mined Area/ Buffer Area

Well to be used in the  
mining operations

## Notes:

1)All mining operations will have a 50' setback from any utilities or man made structures.

2)The mining operations will have a 50' setback from the North Granada Ditch.

3)Entire permit Boundary is in the 100 yr flood zone.

4)The abandon residence consist of 6.3 acres of the 19.5 non mined acres / Buffer Area

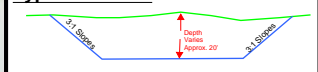
5)

35.0 Mining Acres

19.5 Non Mined Acres / Buffer Area

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54.5 Permit Acres

## Typical Section



Land Owner:  
GP Irrigation  
Farms LLC  
A CO LLC

Land Owner:  
KICT LLC  
A Delaware LLC

Scale





Colorado Gravel LLC Pit  
Reclamation Map Exhibit E

Map By James Higgs  
Colorado Gravel LLC  
8/21/23

Land Owner: Sharon & Michael Winters

Permit Boundaries (54.5  
acres)

Land Owner: William L  
Swafford JR

County Rd HH 3/10

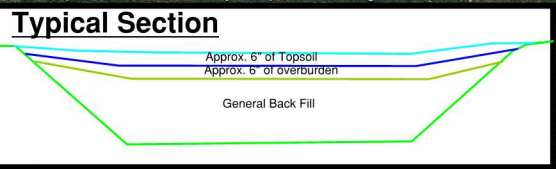
Land Owner: William L Swafford JR

Land Owner: GP Irrigation Farms LLC  
A CO LLC

Approx. Pit Entrance  
38.087328°-102.310718°

385

HH



Land Owner: KICT LLC  
A Delaware LLC

Land Owner: KICT LLC  
A Delaware LLC

Grade to drain  
Approx 1%  
Grade to drain  
Grade to drain

4:1 Slope  
4:1 Slope  
4:1 Slope

Road to Remain

Well to Remain

- Notes:
- 1)All mining operations will have a 50' setback from any utilities or man made structures.
  - 2)The mining operations will have a 50' setback from the North Granada Ditch.
  - 3)The mining operations will have a 400' setback from the Arkansas River.
  - 4)Entire permit Boundary is in the 100 yr flood zone.
  - 5) Land to be reclaimed to Crop Land.



900 ft





PFM Consulting &lt;pfmconsultingcompany@gmail.com&gt;

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**RE: Colorado Gravel LLC Pit Permit Package for Public Review**

1 message

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**Jana Coen** <jcoen@prowerscounty.net>  
To: PFM Consulting <pfmconsultingcompany@gmail.com>  
Cc: Ron Peterson <ron@rocktran.com>

Wed, Aug 23, 2023 at 9:23 AM

Received, thank you.

*Jana Coen*

Prowers County Clerk  
301 S. Main St., Ste. 210  
Lamar, CO 81052  
(719) 336-8011  
[jcoen@prowerscounty.net](mailto:jcoen@prowerscounty.net)

**From:** PFM Consulting <[pfmconsultingcompany@gmail.com](mailto:pfmconsultingcompany@gmail.com)>  
**Sent:** Wednesday, August 23, 2023 7:00 AM  
**To:** [jcoen@prowerscounty.net](mailto:jcoen@prowerscounty.net)  
**Cc:** Ron Peterson <[ron@rocktran.com](mailto:ron@rocktran.com)>  
**Subject:** Colorado Gravel LLC Pit Permit Package for Public Review

Good morning.

The Colorado Division of Reclamation, Mining and Safety requires that we send mining permit packages and any updates to the local county clerk to hold for public review. Attached are updated documents for the permit package for Colorado Gravel LLC Pit that need to be made available for any public review.

Could you please respond via email verifying you received this email and the attachments to it so that I may use this as proof of delivery to your office?

If you have any questions, please let me know. Thank you for your time and help!

**Jodi Schreiber, Owner**

**PFM Consulting LLC**

**719-529-0916**

[pfmconsultingcompany@gmail.com](mailto:pfmconsultingcompany@gmail.com)

PFM Consulting Website

***"Success is stumbling from failure to failure with no loss of enthusiasm."***

**-Winston Churchill**