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, Second Adequacy Review Response

July 17, 2023

Ms. Gagnon,

Thank you for taking the time to review the Special Operations 111 Reclamation permit package for the Colorado Gravel LLC Pit M2022-053.

1. This item was updated and sent via email on June 23, 2023.
2. Please see the attached, updated signature page.
3. Please see the updated Exhibits C, D, E and L. The unaffected area is now 4.7 acres. Colorado Gravel LLC commits to submitting an Amendment prior to these acres ever becoming affected. New Reclamation Cost Estimates are attached for review. With only 10 acre-feet of water allowed to be exposed at any time due to the Division of Water SWSP, the reclamation costs are decreased since backfilling will occur simultaneously to mining operations to ensure that additional water is never exposed. The 10-acre feet of exposed water is permanently covered under LAWMA's plan and can remain exposed with no need to backfill. The maximum amount of backfill would then be for the wash ponds and possible settling pond. The remainder of the site will require only grading and ripping of the stockpile and scale areas, and placing of topsoil followed by seeding and mulch.
4. It is acknowledged that all disturbed land due to the site operations is considered a part of the max allowed disturbance at any time. Colorado Gravel LLC commits to submitting a Technical Revision to increase the maximum disturbed area and provide an updated bond estimate prior to moving into the new area.
5. Colorado Gravel LLC commits to submitting a Technical Revision with design details for any flood protection/bank stability structures required for the possible settling pond by Prowers County or FEMA.
6. The two wash ponds will be approximately 100'x150'x6'.
7. The Reclamation Plan has been updated and is attached for review.
8. Attached is a weed management plan for review and approval.
9. Colorado Gravel LLC commits to obtaining a SWSP from the Division of Water Resources. Water exposure will not be allowed without the SWSP in place. Exhibit L has broken out this task, but Colorado Gravel LLC would ask that this not be included in the bond calculation since the Division of Water Resources will not allow such exposure without the SWSP in place. At the time the plan is in place, the backfilling of the mine would no longer be required and that cost estimate no longer pertains.

10. Please see the attached, updated maps.
11. Please see the updated Exhibit L Reclamation Costs.
12. Please see the attached, updated engineering evaluation from Kidd Engineering.

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

Certification:

As an authorized representative of the applicant, I hereby certify that the operation described has met the minimum requirements of the following terms and conditions:

1. To the best of my knowledge, all significant, valuable and permanent man-made structure(s) in existence at the time this application is filed, and located within 200 feet of the proposed affected area have been identified in this application (Section 34-32.5-115(4)(e), C.R.S.).

2. No mining operation will be located on lands where such operations are prohibited by law (Section 34-32.5-115(4)(f), C.R.S.;

3. As the applicant/operator, I do not have any extraction/exploration operations in the State of Colorado currently in violation of the provisions of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Section 34-32.5-120, C.R.S.) as determined through a Board finding.

4. I understand that statements in the application are being made under penalty of perjury and that false statements made herein are punishable as a Class 1 misdemeanor pursuant to Section 18-8-503, C.R.S.

This form has been approved by the Mined Land Reclamation Board pursuant to section 34-32.5-112,C.R.S., of the Colorado Land Reclamation Act for the Extraction of Construction Materials. Any alteration or modification of this form shall result in voiding any permit issued on the altered or modified form and subject the operator to cease and desist orders and civil penalties for operating without a permit pursuant to section 34-32.5-123, C.R.S.

Signed and dated this 6th day of July, 2023.

Colorado Gravel LLC
Applicant/Operator or Company Name

If Corporation Attest (Seal)

Signed: _____

Title: Attorney-in-Fact

Signed: _____
Corporate Secretary or Equivalent
Town/City/County Clerk

State of Texas)
) ss.
County of Travis)

The foregoing instrument was acknowledged before me this 6th day of July 2023, by William Osborn as Attorney-in-Fact of Colorado Gravel LLC

_____
Notary Public

JOHN BENNETT
Notary ID #129462892
My Commission Expires
August 15, 2023

My Commission expires: 8/15/2023

SIGNATURES MUST BE IN BLUE INK

You must post sufficient Notices at the location of the proposed mine site to clearly identify the site as the location of a

6.4.12 Exhibit L

Reclamation Costs

Reclamation cost estimates were calculated on a per acre basis and applied to maximum active mining area of 39.2 acres and disturbed by unmined area of 4.7 acres.

Direct Tasks	Unit	Quantity	Cost Per Unit	Total Cost
Grading/Ripping Stockpile, Processing & Scale Areas	SQUARE FEET	7,000 SF Overburden	$1.50	$10,500
Placing Topsoil/Fines	VOLUME/CUBIC YARDS	7,000 CY Topsoil	$1.25	$8,750
Backfilling Wash Ponds	VOLUME/CUBIC YARDS	5,000 CY	$1.25	$6,250
Backfilling Potential Settling Pond	VOLUME/CUBIC YARDS	3,000 CY	$1.25	$3,750
Backfilling Active Mine Area	VOLUME/CUBIC YARDS	0 CY Will mine Approx. 10' deep, stay above static water and reclaim to 3:1	$1.25	$0.00
Seeding				
Broadcasting	Hours	10	$300.00	$3,000
Seed Mix	Acre	40	$350.00	$14,000
Mulch	Acre	40	$187.50	$7,500
Area Reclaimed	Acre	40		
Mobilization Fee	Hours	1	$5,000.00	$5,000
Indirect Tasks				
Liability Insurance			0.0155	$2,360
Performance Bond			0.015	$2,284
Profit			0.1	$15,232
Job Superintendent	Hours	20	$88.00	$1,760
Miscellaneous Indirect			0.0925	$14,089
Total Bond				$94,475

Colorado Gravel LLC Pit Weed Management Plan

The Colorado Gravel LLC Pit is in Prowers County, Colorado. This weed plan will out line the methods to be used onsite to mitigate noxious weeds. These methods are recommended by the Colorado Weed Management Association:

Control Methods

Species of noxious weeds grow or spread differently, and Colorado's Noxious Weed Act requires certain methods of control to be used depending on the level of control that is mandated.

Below are examples of Integrated Pest Management techniques.

- Biological control – Uses organisms to control noxious weeds. Since we are dealing with living things, a variety of circumstances come into play that impact the success of the establishment of the bio-control and ultimately the control of the noxious weed you are targeting. For example, an organism that works well on the plains may not work in the mountains. Although there has been some success on some noxious weeds, bio-control agents are not available for all species.
- Chemical control – The use of herbicides to control noxious weeds. All herbicides must be used in accordance with the registered label.
- Cultural control – The use of materials or techniques that reduce noxious weed populations. Examples include mulching, rotational grazing, establishing good vegetation cover.
- Mechanical – Cutting, mowing, disking.

Remember, not all techniques will work in all situations. Refer to the Colorado Department of Agriculture for required control levels. Consult with your local weed manager or Licensed Commercial Applicator for specific recommendations.

Colorado Gravel LLC will contact Prowers County if noxious weeds are found onsite and are not responding to the above methods of eradication. They will illicit the suggestions from Huerfano County at that time for updated techniques that may be successful if a weed species does not respond to these proposed methods.

Colorado Gravel LLC will also monitor the site with periodic inspections to evaluate any new species onsite, and to evaluate the effectiveness of the weed control program. If management objectives are not met, weed control actions will be modified.

Below is a chart showing noxious weed types and possible control methods and timing for reference.

Integrated Pest Management Timeline

Weed	I.P.M.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Russian Thistle	Chemical	RangeStar herbicide can be applied at a rate of 2 pints/acre during the rosette stage. 2,4-D Amine can be applied at a rate of 2 to 4 pints/acre. (Always refer to the herbicide label)											
	Mechanical												
	Cultural												
Prickly Pear	Chemical	See herbicide label for rates											
	Mechanical												
Tree of Heaven	Chemical	A foliar application of glyphosate (RoundUp) mixed at a 2% solution plus a non-ionic surfactant is used when controlling this weed											
	Mechanical												
Kochia	Chemical	Vista herbicide used at the higher rate (1 1/3 pint/ acre) plus Methylated Seed Oil Surfactant (MSO) is recommended											
	Mechanical												
	Cultural												
Puncture -vine	Chemical	2,4-D, glyphosate, and dicamba can be applied when plant is young and just emerging. RoundUp Pro is effective at a 5-10% solution. The Puncturevine weevil is effective in destroying the roots.											
	Biological												
	Mechanical												
	Cultural												
Rubber Rabbit Brush	Chemical	If stems are less than 6 inches in diameter, a basal treatment applied about 12 inches from the ground can be used. See herbicide label for rates and application methods.											
	Mechanical												
	Cultural												
Oak Brush	Chemical	Garlan 3A can be used at a 1% - 3% solution with a non-ionic surfactant. Remedy can also be used as a foliar application when mixed at a 2% - 4% solution or (when mixed with vegetable or mineral oil) as a basal treatment at a 2% - 3% solution											
	Mechanical												
	Cultural												

LEGEND

	Garlon / tricolpyr		Pathfinder / triclopyr		Vista / fluroxypyr		2, 4-D Ester		2, 4-D Amine
	Habitat/Imazapyr		Plateau / imazapic		Roundup / Glyphosate		Landmaster / glyphosate + 2,4-D		Remedy / triclopyr
	Transline / Clopyralid		Escort XP / metsulfuron		Telar XP / chlorsulfuron		Curtial / clopyralid + 2,4-D		Milestone / aminopyralid
	Puncturevine Weevil "M. hyptiformis"		Mowing		Hand-Pull		Tilling		Rust Fungus: Puccinia punctiformis
	Leafy Spurge Flea Beetle: aphtona spp.		Tamarisk Beetle: Diorhabda spp.		Thistle Seed Head Beetle "rhinocyllus conicus"		Sever root below ground or uproot with a shovel or hoe.		Prescribed Burn
	Bulldozers & Hydro-axes.		Aerial application for large areas of Tamarisk & Russian Olive.		Pull with weed wrench when small or with a tractor when larger.		Seed & sow grasses. Keep irrigated to promote competition. Don't overgraze.		Prevent seed formation by eliminating seed heads.
									Cut-Stump: 2" from ground & immediately apply herbicide.

Integrated Pest Management Timeline

Weed	I.P.M.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Leafy Spurge	Chemical	Apply herbicides in spring when true flowers emerge. Effective herbicide control may take several years.											
	Biological												
	Cultural												
Myrtle Spurge	Chemical	C.S.U. has suggested that RangeStar or 2,4-D Ester at 1 1/2 lbs./acre a.e. will control Myrtle Spurge. Also control by pulling or digging with gloves.											
	Mechanical												
Canada Thistle	Chemical	The most effective method is application of Milestone following flowering. Milestone can also be used one month after mowing. Curtail and Transline are effective when plants have emerged in the Spring.											
	Mechanical												
	Cultural/ Biological												
Musk Thistle	Chemical	Apply herbicides before bolting and no later than when developed terminal flowers open to dime size. With Musk Thistle, it is important to prevent seed formation as well.											
	Biological												
	Mechanical												
	Cultural												
Bull Thistle	Chemical	Apply herbicides before bolting and no later than when developed terminal flowers open to dime size.											
	Biological												
	Mechanical												
	Cultural												
Scotch Thistle	Chemical	Apply herbicides before bolting and no later than when developed terminal flowers open to dime size.											
	Biological												
	Mechanical												
	Cultural												
Perennial Sowthistle	Chemical	Tilling is best when plant is just emerging. Herbicides are best applied when plants are in seeding or early bud stage.											
	Mechanical												
Russian Knapweed	Chemical	RangeStar can be applied at any time during active growing. Telar and Milestone should be applied at bloom to post-bloom stages.											
	Mechanical												
	Cultural												
Spotted Knapweed	Chemical												
	Cultural												
Diffuse Knapweed	Chemical												
	Cultural												

Integrated Pest Management Timeline

Weed	I.P.M.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Yellow Toadflax	Chemical	A combination of mowing and chemical treatment applied at flowering over a period of several years is best for this weed.											
	Mechanical												
Dalmatian Toadflax	Chemical	Escort & Telar can be used in the fall. Due to the waxy leaves, a nonionic surfactant is recommended.											
	Cultural												
Perennial Pepper-weed	Chemical	Mowing can be done periodically and controlled burning in the Spring. It is best to treat with Escort XP as soon as found.											
	Mech./Cult.												
Hounds-tongue	Chemical	Mowing 2nd year plants during flowering (before seed production) is useful. Chemical applications are best in Spring (rosettes to 10 inches tall).											
	Mechanical												
Hoary Cress or "White Top"	Chemical	Mowing several times a year is helpful and may make herbicide applications more effective. Telar or Escort are best, but may need several applications.											
	Mechanical												
Field Bindweed	Chemical	Grasses are a good competitor. Mowing and pulling are usually ineffective unless cut below the surface in the early seedling stage. Herbicides can be applied in Spring, at or just after full bloom, or in the fall.											
	Mechanical												
	Cultural												
Salt Cedar or Tamarisk	Chemical	Bulldozer & Hydro-axe methods must be followed by next season herbicide treatment. It is best to treat in late summer or early fall. Cut-stump or foliar apps. are acceptable.											
	Biological												
	Mech./Cult.												
Russian Olive	Chemical	Remove (or pull) before seed production. Use cut-stump or foliar applications.											
	Mechanical												

LEGEND

						2, 4-D Ester		2, 4-D Amine
	Garlon / tricolpyr		Pathfinder / triclopyr		Vista / fluroxypyr	Landmaster / glyphosate + 2,4-D		Remedy / triclopyr
	Habitat/Imazapyr		Plateau / imazapic		Roundup / Glyphosate	Rangestar / Dicamba + 2,4-D		Milestone / aminopyralid
	Transline / Clopyralid		Escort XP / metsulfuron		Telar XP / chlorsulfuron	Curtial / clopyralid + 2,4-D		Rust Fungus: Puccinia punctiformis
	Puncturevine Weevil "M. lypiformis"		Mowing		Hand-Pull	Tilling		Prescribed Burn
	Leafy Spurge Flea Beetle: aphthona spp.		Tamarisk Beetle: Diorhabda spp.		Thistle Seed Head Beetle "rhinocyllus conicus"	Sever root below ground or uproot with a shovel or hoe.		Prevent seed formation by eliminating seed heads.
	Bulldozers & Hydro-axes.		Aerial application for large areas of Tamarisk & Russian Olive.		Pull with weed wrench when small or with a tractor when larger.	Seed & sow grasses. Keep irrigated to promote competition. Don't overgraze.		Cut-Stump: 2" from ground & immediately apply herbicide.

KIDD ENGINEERING

July 13, 2023

Subject: Colorado Gravel LLC PIt
Granada, Colorado

TO WHOM IT MAY CONCERN:

We have conducted an analysis of the proposed gravel pit relative to structures located along the west side of the quarry site. The assumed soil profile, soil types, groundwater depths, and analysis constraints are as shown on the following sheet.

Based upon our analysis, the proposed 3:1 cut slope should be stable and there will not be any damage to the power lines and county road west of the quarry permit line. An exception to this would be in the event of a rapid drawdown of a significant buildup of water. A situation in which this may arise is if the dewatering system fails and there is a significant buildup of groundwater or if there is an extreme rainfall event which results in floodwater flowing into the pit and then the water is rapidly pumped out of the pit. In either case, if the water to be pumped out is more than 12-inches of depth this engineer shall be consulted before dewatering is resumed.

A "significant" buildup of groundwater is dependent upon the depth of the excavation below the groundwater elevation and the depth of the ponded water.

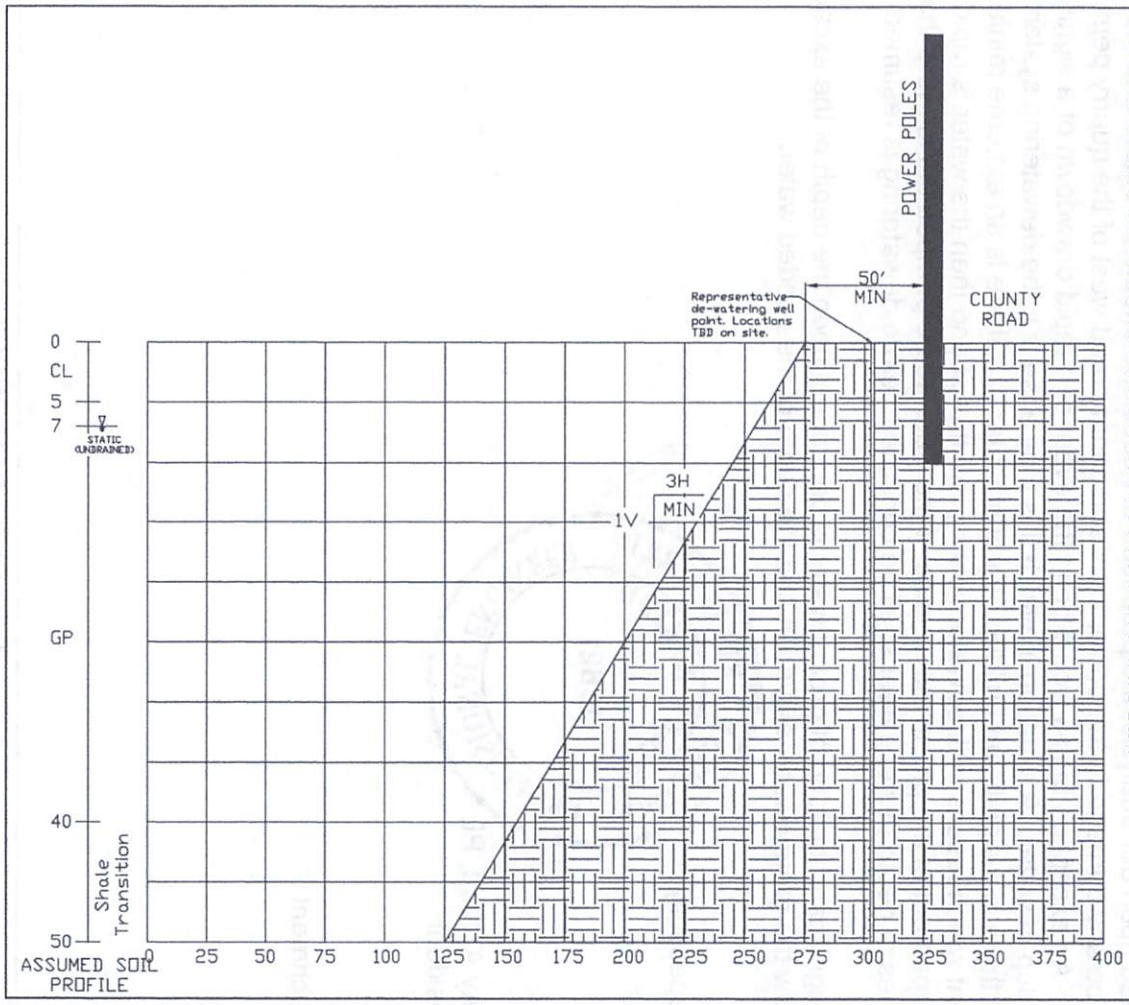
Respectfully,

COLORADO REGISTERED RICKY A. KIDD 16621 PROFESSIONAL ENGINEER

Ricky A. Kidd, PE
President

Attachment

44811 EAST US HIGHWAY 50
AVONDALE, COLORADO 81022-9704
719-544-5239



NOTES:

1. The stability of the high wall is totally dependent upon the ground water table elevation. A de-watering system shall be installed and maintained behind the wall excavation.
2. The excavation shall be carefully monitored to ensure that no fines are migrating with water draining from any elevation of the cut slope. The competent person shall be responsible to monitor the ground water, erosion, and slope stability. If there is any sign of slumping or sloughing then operations shall cease immediately and this engineer shall be contacted for guidance.
3. KICT, LLC, and/or assigns and successors, shall be responsible to maintain the site from wind and water erosion. The top of the cut-slope shall not be allowed to progress any closer than 50-ft from the base of any power pole and erosion and erosion rivulets shall not result in any part or piece or section of the cut-slope to be steeper than 3 horizontal to 1 vertical, nor encroach on the 50-ft offset.
4. The assumed soil profile is as shown. Strata and groundwater conditions that this engineer does not know of may exist. Any differences to the assumed soil profile shall be brought to the attention of this engineer.
5. The top of the cut slope shall be no less than 50-ft from the power line set.
6. The excavation plan assumes static ground water at the depth as shown.
7. Cut slope of gravel quarry shall be no steeper than 1 vertical to 3 horizontal (3:1 slope). This is the maximum slope during active quarry operations. Closure of the quarry may require flatter slopes for long-term stability.
8. If the total depth of excavation exceeds 40-ft then this engineer shall be consulted.

COLORADO REGISTERED PROFESSIONAL ENGINEER
KERY A.
16621
7-13-2023

COLORADO GRAVEL LLC Pit
GRANADA, COLORADO

KIDD ENGINEERING AND CONSTRUCTION MANAGEMENT SERVICES, INC.
AVONDALE, CO
719-544-5239

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

CDOT Road 385

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

Land Owner: KICT LLC A Delware LLC

Center Pivot

Kiowa County Road HH

Existing Access Road 38.085911°-102.310627°

Land Owner: GP Irrigation Farms LLC A CO LLC

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

North Granada Ditch

NORTH

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.

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

N

Scale
660'-0"

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

Colorado Gravel LLC Pit
Existing Conditions
Exhibit C

Colorado Gravel LLC Pit
Legal Description Exhibit A/B

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

Land Owner:
Enstrom Bristol
Properties LLC

Land Owner: Sharon
& Michael Winters

Arkansas River

36

Land Owner:
William L
Swafford JR

Land Owner:
KICT LLC
A Delware LLC

HH 3470

3477

Permit Boundaries
(54.5 acres)

Land Owner:
KICT LLC
A Delware LLC

Land Owner:
William L
Swafford JR

N

Approx. Pit Entrance
38.085911°-102.310627°

385

HH

3468

3470

3479

Land Owner:
GP Irrigation
Farms LLC
A CO LLC

Land Owner:
KICT LLC
A Delware LLC

North Granada Ditch

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

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

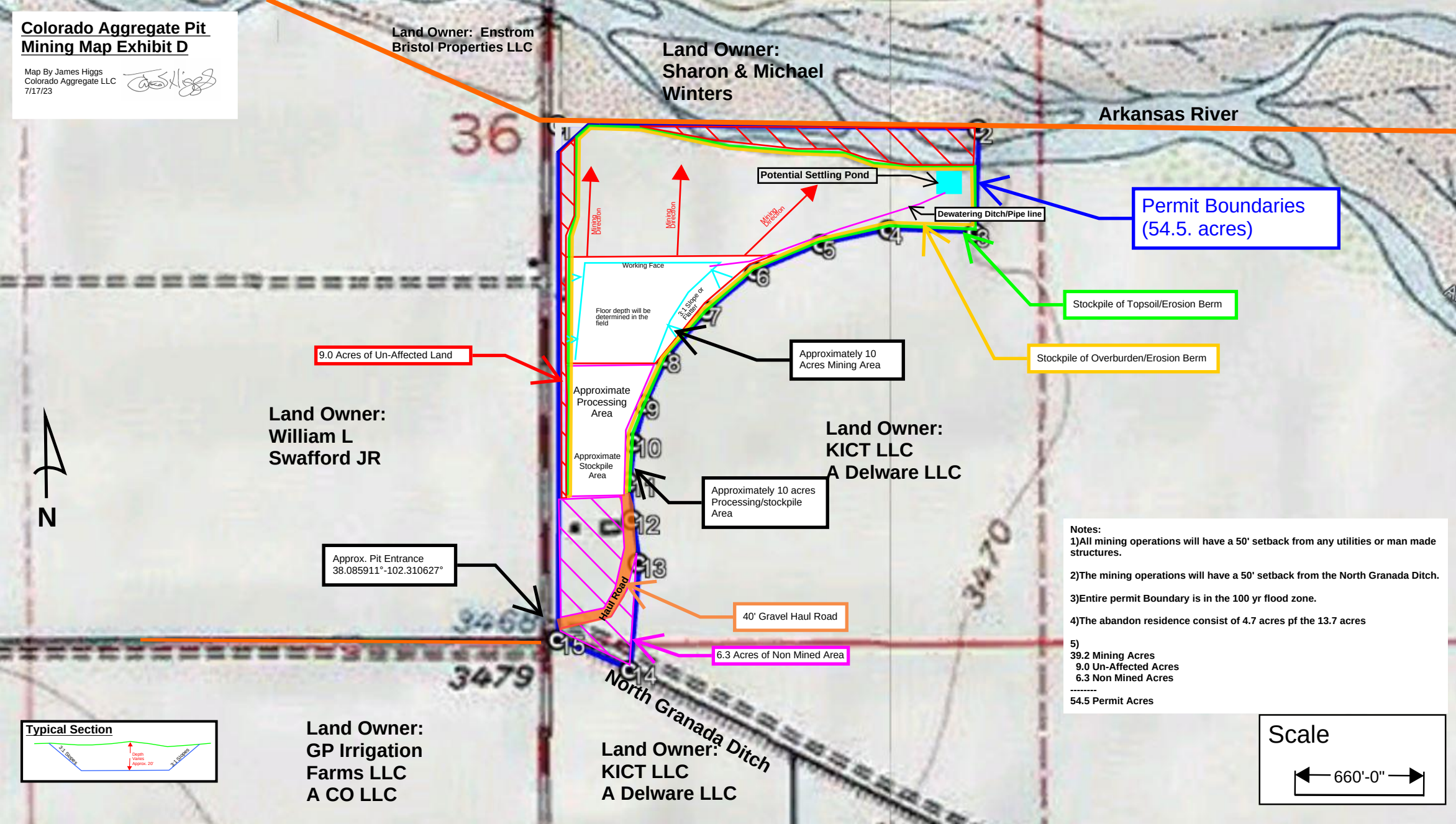
2)The mining operations will have a 50' setback from the North Granada Ditch.

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

Scale
660'-0"

Colorado Aggregate Pit Mining Map Exhibit D

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



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 4.7 acres pf the 13.7 acres

5)
39.2 Mining Acres
9.0 Un-Affected Acres
6.3 Non Mined Acres

54.5 Permit Acres

Colorado Gravel LLC Pit Reclamation Map Exhibit E

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

Land Owner: Enstrom Bristol Properties LLC

Land Owner: Sharon & Michael Winters

Arkansas River

Land Owner: William L Swafford JR

Land Owner: William L Swafford JR

Land Owner: KICT LLC A Delware LLC

Grade to drain

Grade to drain

Grade to drain

Grade to drain

Finish Grade will be approximately original contours except lowered to have a foot over static water levels

3478

3439

Permit Boundaries (54.5 acres)

County Rd HH 3/10

3477

3470

3479

385

36

Approx. Pit Entrance
38.085911°-102.310627°

N

Land Owner: GP Irrigation Farms LLC
A CO LLC

Land Owner: KICT LLC
A Delware LLC

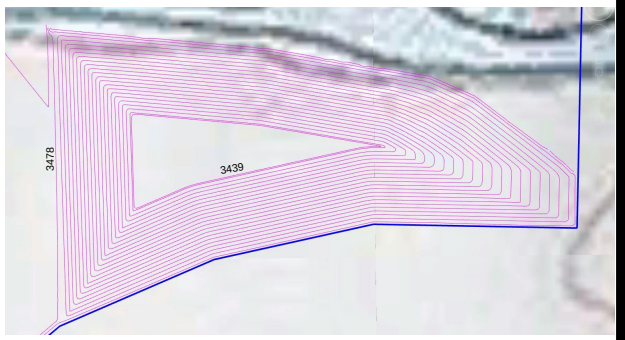
North Granada Ditch

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

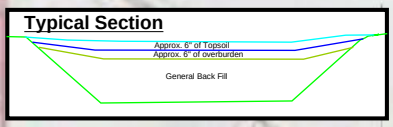
2)The mining operations will have a 50' setback from the North Granada Ditch.

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

Pond Contour Detail



Typical Section



Scale

600'-0"