

STATE OF  
COLORADO

Gagnon - DNR, Nikie &lt;nikie.gagnon@state.co.us&gt;

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## Yetter Pit Full Release Denial & Inspection Report

1 message

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**Gagnon - DNR, Nikie** <nikie.gagnon@state.co.us>  
To: Jewelie Yetter <yetterjewelie@yahoo.com>

Wed, May 24, 2023 at 2:52 PM

Hi Jewelie.

Attached is the inspection report and denial notice for the Yetter Pit release request. As we discussed in the field, the Division is unable to release the permit at this time since the approved vegetation is not established across the entire site. I reviewed the approved reclamation plan in Amendment 1. You are required to use straw mulch for reseeding. This may help hold the seed in place when you reseed the site. Please review the attached reclamation plan and ensure you are following all the required procedures, i.e., mulching, mowing and weed control.

Feel free to call me if you have any questions about the report.

Kind regards,

--

**Nikie Gagnon**  
Environmental Protection Specialist



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

P 303.866.3567 x8126 | C 720.527.1640 | F 303.832.8106  
Physical: 1313 Sherman Street, Room 215, Denver, CO 80203  
Mailing: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216  
[nikie.gagnon@state.co.us](mailto:nikie.gagnon@state.co.us) | <https://www.drms.colorado.gov>

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### 3 attachments



**M1996050\_Yetter Pit\_SL1 Release Denial Notice.pdf**  
171K



**INSP-REPORT\_M1996050\_Acreage Release Request.pdf**  
5469K



**Amendment 1 REVISION - M1996050\_Mining and Rec Plan.pdf**  
2587K



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

May 24, 2023

Jewelie Yetter  
R & J Yetter Sand & Gravel LLC  
5196 RD 203  
Lewellen, NE 69147

**Re: Yetter Pit - File No. M-1996-050, Full/Final Release Denial**

Dear Mrs. Yetter:

On May 24, 2023 the Division of Reclamation, Mining and Safety considered your request for a financial warranty release. The Division found that reclamation had not been accomplished at this site and denied this request. Please review the attached inspection report for the specific reasons for the financial warranty release denial.

In accordance with Rule 1.4.11, any person who can demonstrate that they are directly and adversely affected or aggrieved by an action of the Office, may petition for a hearing before the Board on such action within thirty (30) days of the date of the Office decision, if the decision was a denial, without a hearing. Such petitions for a hearing shall state how the petitioner is directly and adversely affected or aggrieved by the Office's decision, and how the petitioner's interests are entitled to protection under the Act. The petitioner shall list and explain any issue the petitioner believes should be considered by the Board at the hearing on the matter. The petition for a hearing shall specify the application or file number assigned by the Office.

If you have any questions, please contact me by telephone at (303) 866-3567 x 8126, or by email at [Nikie.gagnon@state.co.us](mailto:Nikie.gagnon@state.co.us).

Sincerely,

Nikie C. Gagnon  
Environmental Protection Specialist

cc: Amy Eschberger, DRMS


M-GR-04





**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.

<b>MINE NAME:</b> Yetter Pit	<b>MINE/PROSPECTING ID#:</b> M-1996-050	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Logan
<b>INSPECTION TYPE:</b> Surety Release Inspection	<b>WEATHER:</b> Cloudy	<b>INSP. DATE:</b> May 18, 2023	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> R & J Yetter Sand & Gravel LLC	<b>OPERATOR REPRESENTATIVE:</b> Jewelie Yetter	<b>TYPE OF OPERATION:</b> 110c - Construction Limited Impact	
<b>REASON FOR INSPECTION:</b> Surety Release Requested	<b>BOND CALCULATION TYPE:</b> None	<b>BOND AMOUNT:</b> \$17,500.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>INSPECTOR(S):</b> Nikie Gagnon	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> May 24, 2023	

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

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

## **OBSERVATIONS**

The Yetter Pit was inspected by Nikie Gagnon with the Colorado Division of Reclamation, Mining and Safety (Division). Jewelie Yetter, representing the Operator, accompanied the Division during the inspection. This inspection was completed as part of an acreage release request, submitted in accordance with Rule 4.17, received by the Division on May 4, 2023. The site was previously inspected by the Division on November 21, 2022 as part of the Division's routine monitoring inspection program.

The site is a 9.9 acre operation that is no longer actively mined and is under reclamation. The approved post-mining land use is wildlife habitat with an unlined pond.

The Division sent notice of the release request to the Logan County Planning Department and Commissioners, the Centennial Soil Conservation District, and the current landowner, Marcus Raimos. At the time of writing this inspection report, the Division had not received any comments.

### **Reclamation Plan Compliance:**

The approved Reclamation Plan, located in Amendment 01 (2011) and Technical Revision 01 (2014), calls for maximum underwater slopes no steeper than 2H:1V and shoreline slopes no steeper than 3H:1V. The access road to and around the pond has been approved to remain after reclamation is complete. The pond banks, stockpile and processing areas, and areas between the access road and permit boundary will have 6" inches of topsoil returned, tilled, seeded, and mulched. The approved reclamation seed mixture will be drilled and consists of the following species and seeding rates: alkali scaton (.375), prairie cordgrass (.25), switchgrass (.9), western wheatgrass (3.22), and big bluestem (1.1). There may also be small areas seeded with Kentucky bluegrass (2.0) and other areas where trees and shrubs may be planted. The seeded areas will be mulched and crimped at a rate of 2,000 lbs. of straw per acre.

During this inspection, the Division noted the slopes around the pond have been graded to the approved 3H:1V slope and appear to be stable. The Operator indicated that reclamation began on the western side of the permit area and moved east over time. As of this inspection, revegetation is patchy across the site. On the south and east sides of the permit area, grass seedlings were sprouting in some areas, however the majority of this area is a mix of exposed bare ground and annual weeds. The Division observed more established native grasses in the northwestern and western sections of the permit area, however, there are patches of cheat grass interspersed with the native grass. Kochia, a troublesome annual weed, and cheat grass, a List C noxious weed, were noted in several areas around the site. The northeastern corner of the permit area was last seeded in the fall of 2022, however, the Operator stated wind erosion may have swept away some of the seeds they put down. The Division did not observe any straw mulch in the reseeded area, which is required under the approved reclamation plan.

The Division recommends that the operator review the approved procedures in the 2011 Amendment 01 reclamation plan and conduct the appropriate revegetation work at the site. Additionally, the reclamation plan includes a letter from the NRCS stating that weed control should be accomplished on site during grass stand establishment. Weed control can be chemical and mowing may be conducted between June and early July. No grazing should be allowed until a lush stand of grass is present. If an insufficient stand of grass is present, the area should be seeded again.



Based on the observations made during the inspection, the Division will deny the acreage reduction request.

Photographs taken during the inspection are attached. Please contact Nikie Gagnon via phone at (303) 866-3567 ext. 8126 or email at [nikie.gagnon@state.co.us](mailto:nikie.gagnon@state.co.us) if you have any questions regarding this report.

**PHOTOGRAPHS**



Photo 1. Looking east from southeast corner of pond.



Photo 2. Looking at northeast corner of permit area. Area reseeded in 2021.





Photo 3. Looking east from the northeast corner of pond. Evidence of drill seeding conducted in fall of 2022.



Photo 4. Looking west along northern shore of the pond. Native grasses are establishing here.





Photo 5. Annual weeds and native grasses observed along the northern shore of pond.



Photo 6. Looking east from the northwestern end of pond. Grasses starting to fill in here.





Photo 7. Western shore of pond. Patches of cheat grass and annual weeds interspersed with native grasses.



Photo 8. Looking southwest along the access road on the south side of permit area. Native grass sprouting in this area, however annual weeds dominate.

**Inspection Contact Address**

Jewelie Yetter  
R & J Yetter Sand & Gravel LLC  
5196 RD 203  
Lewellen, NE 69147

Enclosure: 2011 Amendment Application/Reclamation Plan

CC: Amy Eschberger, DRMS

## **Exhibit C Mining Plan**

### **Mining Plan:**

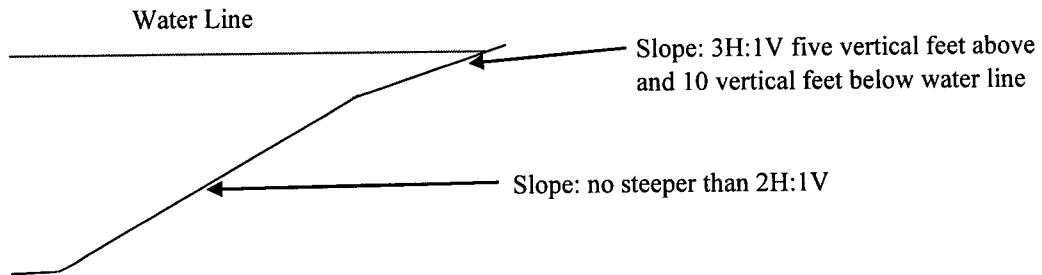
1. Mining of Sand and Gravel deposits started in 1996 and will end in June 2020. The site consists of 9.18 total acres with an anticipated total mining area of 5.64 acres as shown in "Exhibit E: Mining Plan".
2. Topsoil depth is approximately 6", which is a grayish brown loamy sand. Future stripped topsoil will be stock piled as shown on "Exhibit E: Mining Plan". All future topsoil will be graded pursuant to the grading plan presented in "Exhibit D: Reclamation Grading Plan" with side slopes no steeper than 3H:1V, with suitable seeding of graded area to prevent erosion.
3. Thickness of the sand and gravel deposit ranges from ten to thirty feet in thickness.
4. An access road has been constructed from CR 16 to the sand and gravel pit and along the south side of the mine area.
5. The pit will be operated as an open pit with no de-watering or discharge to the South Platte River.
6. The open pit does intercept groundwater all year, and a Substitute Water Supply Plan has been requested from the State Engineer (enclosed). In addition, the depletions associated with the open mining will ultimately be included in the Logan Well Users Decree 03CW195.
7. No refuse, acid or toxic-producing materials will be exposed or used on the mining site.
8. Reclamation will be consistent with the future land use including wildlife habitat and the existing residential house and shop area to the south.
9. All sand and gravel will be stockpiled on site for use in concrete, barrow material and road base. There will not be any screening, separation or crushing activities of the mined aggregate.



## Exhibit D Reclamation Plan

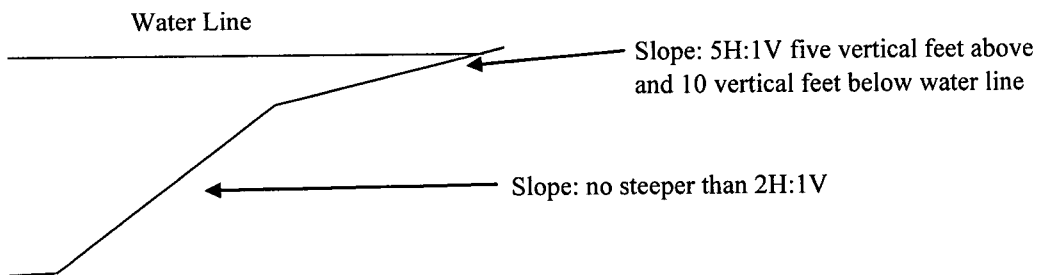
### Reclamation Plan:

1. Overburden from continued mining will be replaced where there is sufficient area affected. Final reclamation will occur after the mining is completed. It will not disrupt mining operations.
  - i. Maximum gradient of slopes will be 2H:1V. Final Reclaimed Pit. Slopes minimum 3H:1V shore line to 10' below water level. Slope no greater than 2H:1V 11' below water level. Shore line gradient will extend a minimum of 1' vertically above maximum water surface. Typical reclaimed cross section below.



Typical Cross Section

- ii. Maximum gradient of slopes in shallow water areas will be 2H:1V. Final Reclaimed Pit. Slopes minimum 5H:1V shore line to 10' below water level. Slope no greater than 2H:1V 11' below water level. Shore line gradient will extend a minimum of 1' vertically above maximum water surface. Typical reclaimed cross section below.



Typical Cross in Shallow Area



- iii. All stockpiled overburden and topsoil will be used exclusively for reclamation along the east and south side of the pit. All topsoil placed for reclamation will be a minimum of 3" over disturbed unexcavated native top soil, and placed as shown in "Exhibit D: Reclamation Grading Plan" cross section details . The total volume of topsoil excavated is estimated to total 1,452 cubic yards. The total volume required for reclamation of disturbed mining area is 1,460 cubic yards. The reclaimed areas will consist of those areas disturbed by the stock piles and access road on the south of the mine boundary. Due to the wet mining excavation, existing topsoil on the northern perimeter of the pit will not be disturbed. The access road from CR 16 north to the pit has been previously reclaimed and will remain. The access road south of the pit will be reclaimed. Once mining is complete, there will be sufficient overburden topsoil for the preparation and seeding areas and shoreline placement (2.2 acres will consist of topsoil application pursuant to "Exhibit D: Reclamation Grading Plan"). The volume required for seedbed preparation and shoreline placement is 1,452 cubic yards. Presently there is sufficient stockpiled overburden to reclaim the disturbed area on the east side of the pit and the access road on the south side of the pit.
- iv. The pit will be seeded on an on-going basis. Seedbed will be worked to provide well settled and firm but friable for seep replacement. Soils that have been over-compacted by equipment will be tilled to break up restrictive layers, harrowed, rolled or packed, to provide the required seed bed.
- v. Seed mixture: Please see the attached Reclamation Plan from the NRCS.

<u>Species</u>	<u>#'s/AC</u>
Alkali Sacaton	0.375
Prairie Cordgrass	0.25
Switchgrass	0.90
Western Wheatgrass	3.22
Big Bluestem	1.10

- vi. Application method for non-residential areas will be by seed drilling. Drill spacing will be 7"-12" with a planting depth of 1 1/4"-1 1/2" inches. A straw mulch will be spread and crimped into the soil at a minimum rate of 2,000 pounds per acre. Mulch will stick 6" out of the soil to control wind and water erosion until grass becomes established.

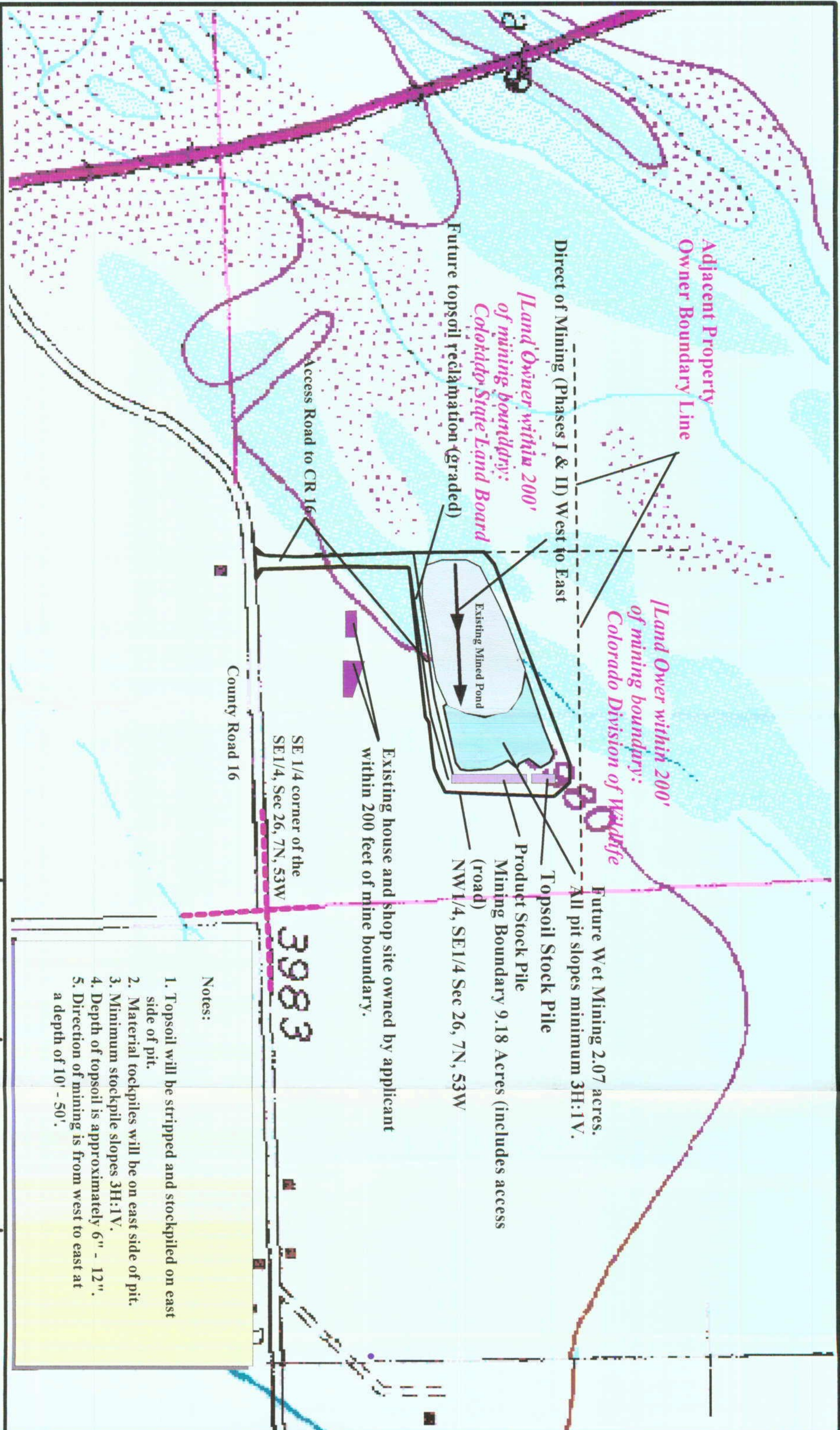
- vii. No trees or shrubs will be planted within the mine boundary.
- viii. There will be no off-site drainage.
- ix. Anticipated reclamation costs are shown as a cost per acre. All costs include labor.

### Estimated Costs

Logan Sand & Gravel Reclamation Cost Estimate				
Description	Unit	Quantity	Unit Cost	Total Cost
<b>Site Work Costs <sup>1</sup></b>				
Backfill (push 200 yards)	cy	4,000	\$1.00	\$4,000
Grading	cy	1,452	\$1.50	\$2,178
Topsoil Application (haul)	cy	1,452	\$1.50	\$2,178
Seed Bed Preparation	acres	2.62	\$26.00	\$68
Seeding (drill)	acres	2.62	\$163.00	\$427
Mulching	acres	2.62	\$554.00	\$1,451
Fertilization	acres	2.62	\$75.00	\$197
<b>Sub-Total</b>				<b>\$10,499</b>
Mobilization/Demobilization				\$2,000
Geotech/Soil Samples				\$1,500
<b>Sub-Total</b>				<b>\$3,500</b>
<b>Total Direct Costs</b>				<b>\$13,999</b>
<b>Indirect Costs (18.5% of Total Direct Costs)</b>				<b>\$2,590</b>
<b>Additional Cost (5% Direct &amp; Indirect Costs)</b>				<b>\$829</b>
<b>Total Project Cost</b>				<b>\$17,418</b>

<sup>1</sup> All costs include equipment O&M costs, operator costs, and equipment depreciation





3983

Notes:

1. Topsoil will be stripped and stockpiled on east side of pit.
2. Material tockpiles will be on east side of pit.
3. Minimum stockpile slopes 3H:1V.
4. Depth of topsoil is approximately 6" - 12".
5. Direction of mining is from west to east at a depth of 10' - 50'.

Forrest Leaf, PE

PO 336714  
Greely, CO 80633  
(970) 397-3063  
forrest.leaf@qwest.net

Exhibit E: Mining Plan

Client: Reese

M-1996-050

Prepared on:  
Jan 15, 10

Prepared by:  
F. Leaf



Future topsoil reclamation. - 2.2 acres.  
Refer to grade cross section in  
"Exhibit D: Reclamation Grading Plan".

Disturbed area with no excavation.  
Seeding preparation only, no topsoil  
application.

Established Reclaimed  
and seeded area.

Access Road to CR 16  
previously reclaimed)

Final Reclaimed Pit.  
Slopes minimum 3H:1V shore line  
to 10' below water level.  
Slope no greater than 2H:1V 11'  
below water level. Shore line gradient  
will extend a minimum of 1' vertically above  
maximum water surface.

Mining Boundary 9.18 Acres (includes access road)  
NW1/4, SE1/4 Sec 26, 7N, 53W  
Shallow Water for Habitat - Max Depth  
of 5 feet with 5H:1V slope to shoreline  
extends 80 feet from shoreline into pond

SE 1/4 corner of the  
SE1/4, Sec 26, 7N, 53W

3983

200 0 200 400 600 800 1000 Feet



Forrest Leaf, PE  
PO 336714  
Greeley, CO 80633  
(970) 397-3063  
forrest\_leaf@greeley.net

Exhibit D: Reclamation Plan

Client: Reese

M-1996-050

Prepared on:

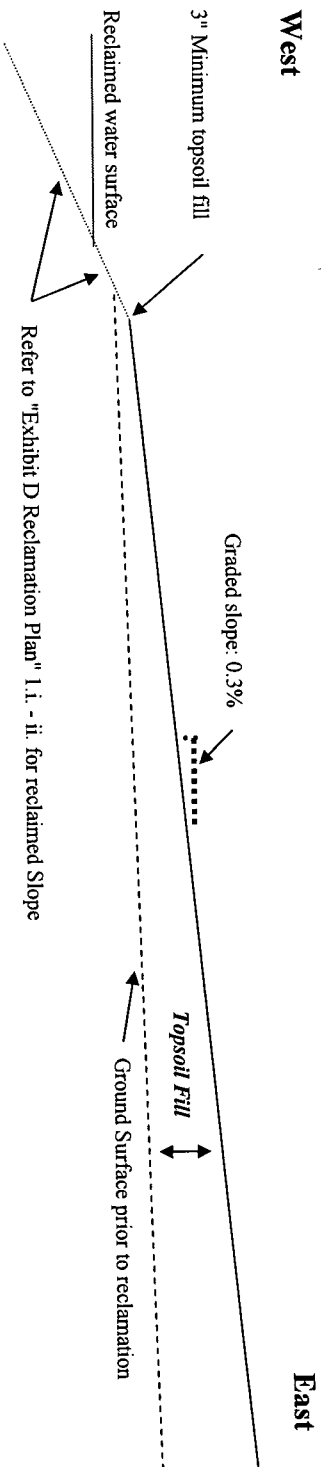
Jan 15, 10

Prepared by:

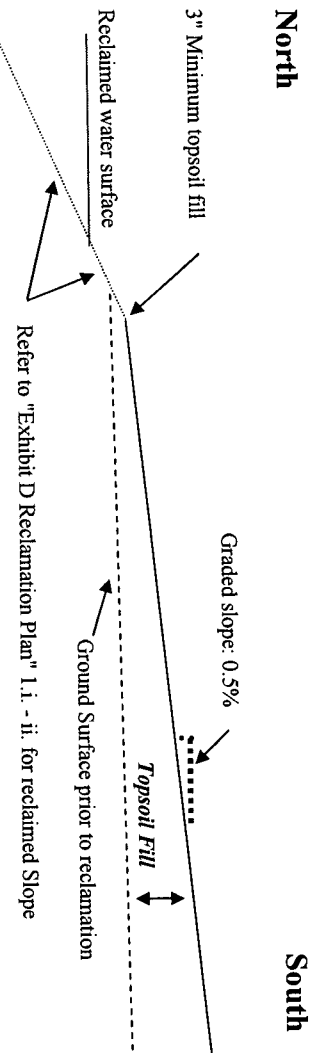
F. Leaf



# Logan Sand & Gravel M-1996-050 Cross Section Grading Detail



Cross Section A - A' NTS



Cross Section B - B' NTS

Prepared on:

Jan 15, 2010

Prepared by:

T. Lee

Handwritten signature

Future topsoil reclamation - 2.2 acres.  
Refer to grade cross section  
detail. Minimum 3" topsoil, average depth of  
4.8" average depth with  
minimum of 90% standard proctor  
density.

Mining Boundary 9.18 Acres (includes access road)  
NW1/4, SE1/4 Sec 26, 7N, 53W

See "Cross Section Detail - Exhibit D Grading  
Plan"

Access Road to CR 16  
previously reclaimed)

SE 1/4 corner of the  
SE1/4, Sec 26, 7N, 53W

County Road 16

3983

200 0 200 400 600 800 1000 Feet



Forrest Leaf, PE  
PO 336714  
Greely, CO 80633  
(970) 397-3063  
forrest\_leaf@quest.net

Exhibit D: Reclamation Grading Plan

Client: Reese

M-1996-050

Prepared on:

Jan 15, 19

Forrest Leaf



Seeding reclamation area - 2.62 acres.  
Seedbed will be worked to provide well settled and firm but friable for seep replacement. Soils that have been over-compacted by equipment will be tilled to break up restrictive layers, harrowed, rolled or packed, to provide the required seed bed. Refer to Reclamation Plan, Exhibit D for seed mixture. Refer to "Exhibit D Grading" Map and details for grading plan.

Final Reclaimed Pit.  
Slopes minimum 3H:1V shore line to 10' below water level.  
Slope no greater than 2H:1V 11' below water level. Shore line gradient will extend a minimum of 1' vertically above maximum water surface.

Established Reclaimed and seeded area.

Mining Boundary 9.18 Acres (includes access road)  
NW1/4, SE1/4 Sec 26, 7N, 53W

Access Road to CR 16 previously reclaimed)

SE 1/4 corner of the  
SE1/4, Sec 26, 7N, 53W

County Road 16





United States  
Department of  
Agriculture

NATURAL RESOURCES  
CONSERVATION  
SERVICE

1607 Pheasant Ridge  
Sterling, Colorado 80751  
phone --- (970) 522-7554

May 29, 1996

Richard Snook  
Logan County Department of Planning and Zoning  
Logan County Courthouse  
Sterling, CO 80751

Dear Mr Snook,

We have examined the proposed sand and gravel pit site on the SE4 of the SE4 of section 26, Township 7 North, Range 53 West. The reclamation plan for this site is as follows:

**Situation:** A portion of the area is flood irrigated cropland. The rest of the area is in native vegetation. The native vegetation area has a fluctuating water table. According to your field visit with Terry McKee, Army Corps of Engineers, the area is considered an artificially induced wetland.

**Soils:** The site consists of Fluvaquent soils, map unit 29 and Fluvaquent Haplaquolls, map unit 28. The soils are deep, somewhat poorly drained that are formed in recent alluvial deposits bordering the South Platte River channel. These soils typically have a fluctuating water table and are subject to frequent flooding during the spring and summer months.

**Vegetation:** The current plant community is 70-75% grasses and grass-like, 20% forbs, and 5-10% shrubs. Plant species that occur on the site are prairie cordgrass, rabbitsfoot, three square, foxtail barley, indian tobacco and willow.

**Reclamation:** It should be noted that once sand and gravel mining is initiated, all disturbed areas must be reclaimed. The following information pertains to the reclamation of the site:

**Site Preparation:** Reclamation to the pit should be made by smoothing all banks to no more than 2:1 slopes and should be flatter where feasible and practicable. The topography should be made smooth with no spoil piles or pits present.

**Topsoiling:** The current topsoil should be removed and reserved to be used for reclamation. Topsoil should be spread uniformly over the disturbed area to a packed depth of 6 inches. In the event that existing soils have insufficient depth, topsoil shall be brought in and spread over the deficient areas.



**Fertilizer and Mulch:** Manure can be spread on the prepared surface at the rate of 20 tons per acre; or nitrogen (N) and phosphorus (P2O5) fertilizer can be applied and incorporated at a rate of 40 lbs per acre each. Time of application should be immediately prior to seeding. If nitrogen and phosphorus are applied, a native hay or straw mulch will have to be spread and crimped into the soil at a rate of 4000 lbs per acre after fertilizing. Mulch should be crimped into the soil in such a way that 6 inches of mulch protrudes from the soil surface. These measures will help control wind and water erosion until the grass becomes established.

**Grass Seeding:** Total area to be seeded should include all disturbed areas. The seedbed should be well settled and firm, but not friable, for seed placement. Soils that have been compacted by equipment should be tilled to break up rooting restrictive layers, then harrowed, rolled or packed to prepare the required firm seedbed. Grass should be drilled using a grass drill from November 1st to April 30th, prior to a period of anticipated moisture and after all other treatment is completed. Recommended planting depth is 1/4 to 3/4 inches. Species to be seeded should be:

Species -----	Pure live seed/acre -----
Alkali sacaton	0.375
Prairie cordgrass	0.25
Switchgrass	0.9
Western wheatgrass	3.2
Big bluestem	1.1

(See attached seeding recommendation, CO-ECS-5, Part I)

**Weed control:** Weed control should be accomplished on the site during grass stand establishment. Weed control can be chemical (see chemical dealer for recommendation, application rates, and time of application) or mechanical. Mowing shows best results when completed between mid June and early July. No grazing should be allowed during the first two years of establishment. After this period, the success of the seeding should be evaluated. If a lush stand is present, grazing may begin. If it is determined that an insufficient stand of grass is present, the area should be seeded again.

If you have any questions, please call or come by our office.

Sincerely,

*Dawn Jackson*

Dawn Jackson  
Resource Conservationist

U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
COLORADO

CO-ECS-5  
(180-12-11)  
Rev. 4/92

PART I - GRASS SEEDING PLANNED

Producer: (Reclamation) Planner: D. Jackson Date: 5/29/96

Contract or Agreement # NA Contract Item No. NA Field No.         
Practice Name & No. 342 Critical Area Planting Ac. Irrigated        Dryland ✓  
Land Resource Area 72 Range Site Salt Meadow

Seedbed Preparation: Method See narrative Approximate dates         
Dead Litter Cover;        Kind, Pounds residue needed.         
Clean till, Firm Seedbed, Interseed, Other       

Seeding Operation: Drill ✓ Interseed        Broadcast        Date Nov 1 - Apr 30  
Drill spacing 7-12" Type Grass drill Planting depth 4-3/4"

Fertilizer: Pounds actual available nutrient per acre recommended.  
Nitrogen (N2) 40 Phosphorus (P2O5) 40 Potassium (K) —

Weed Control: Chemical, Kind & Amount See narrative Mechanical         
Flash Grazing        Dates       

Mulch: Kind See narrative Amount        lbs/Ac. How applied         
How anchored        Anchored depth       

Seed Recommendations

Species	Variety	(1) Required PLS rates per acre (100%)	(2) % of species in mixture
<u>Alkali sacaton</u>	<u>—</u>	<u>1.5</u>	<u>25</u>
<u>Prairie cordgrass</u>	<u>—</u>	<u>1.0</u>	<u>25</u>
<u>Switchgrass</u>	<u>Blackwell, Alamo, Neb 28</u>	<u>4.5</u>	<u>20</u>
<u>Western wheatgrass</u>	<u>Arriba, Barton, Flintlock</u>	<u>16.0</u>	<u>20</u>
<u>Big bluestem</u>	<u>Kaw, Pawnee, Champ</u>	<u>11.0</u>	<u>10</u>

(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres	(5) Total PLS lbs/ species planned (3)x(4)
<u>0.375</u>	<u>determined</u>	<u>1</u>
<u>0.25</u>	<u>at planting</u>	<u>      </u>
<u>0.9</u>	<u>time</u>	<u>      </u>
<u>3.2</u>	<u>      </u>	<u>      </u>
<u>1.1</u>	<u>      </u>	<u>      </u>

SCS cost shared programs such as Great Plains, Watershed activities, RC&D measures and any other program requires the use of Certified Seed (Blue Tag) if available.

Remarks 1/ Multiply Column 3 by column 4 For each species to  
determine total PLS lbs / species planned.