

November 18, 2020

Colorado Division of Reclamation and Mining Safety
Mr. Eric Scott
1313 Sherman Street, Room 215
Denver, CO 80203

RE: Technical Revision 4 – Shores Gravel Mine/Vogl Amendment (Permit M-1998-013), Weld County, Colorado – Comment Response

Dear Mr. Scott:

Bestway Concrete Company (Bestway) requests a Technical Revision 1 (TR-01) to Permit M-1998-013 to allow modification of the mining and reclamation plan at the Shores Gravel Mine Vogl Amendment Site. A site location map is provided on Figure 1. The below is a description of the updated plans and some additional information per conversations from the week of November 2, 2020 and November 16, 2020.

Background

On May 15, 2020, the Division of Reclamation, Mining and Safety approved an Amendment application submitted to the Division on February 5, 2020, which approved the addition of 104.7 acres known as the Vogl Property to the permitted area and modified the mining and reclamation plans accordingly. The mining and reclamation plans assumed that the Natural Drainage (ND on attachment A) was a jurisdictional wetland and thus avoided mining in that area. On February 17, 2020 Bestway Concrete Company submitted a request to the Army Corps of Engineers for a Jurisdictional Determination of the Vogl site. The attached Approved Jurisdictional Determination dated June 19, 2020 (Attachment B) determined that the Natural Drainage that crosses from east to west across the Vogl Site is not jurisdictional. Since the natural drainage controlled the mine layout and final reclamation plan, Bestway is proposing the changes discussed below to the mining and reclamation plans. No changes to the size of permitted area are proposed in this Technical Revision. There are no proposed mine slope or reclaimed slope changes as part of this technical revision.

Proposed Revisions to the Mining and Reclamation Plans

- *Cell 2:* Previously, Cell 2 had been split into two separate cells (2A and 2B) in order to remain to the north and south of the natural drainage. The new plan joins both cells into one 34.1 acre cell (See attached Mine Plan). Cell 2 now extends from the Land Chance Ditch in the south to the northern terminus of the property boundary. Cell 2 will be slurry wall lined and mined out.
- *Cell 3:* Cell 3 (See attached Mine Plan) has been extended slightly further to the north.
- *Slurry Wall:* Two slurry walls will be constructed around the perimeter of individual mining cells (see attached Mine Plan). The west wall will be slightly larger and surround reclaimed Pond 2 and the east will surround Pond 3.
- *Reclamation:* The approved reclamation plan is permitted for a post-mining land use of lined water storage in Pond 2A and Pond 3 while Ponds 2B and 1 were to be returned to native grade. The Technical Revision proposes to combine Ponds 2A and 2B into Pond 2, which will be utilized as lined water storage along with Pond 3 (see attached Reclamation Plan). The mined 3-horizontal to 1-vertical slopes in Ponds 2 and 3 will be

reclaimed at a 3H:1V slope. There are no proposed mining or reclamation changes to Pond 1. Below is a summary of the proposed reclamation for the Vogl site:

- Cell 1 – wet mined and reclaimed as uplands to native grade
 - Cell 2 – slurry lined and dry mined, reclaimed as water storage
 - Cell 3 – slurry lined and dry mined, reclaimed as water storage
- *Bonding:* Updated bonding will include the reclamation described under this TR and will be provided prior to commencement of mining activities in Cells 2 and 3. Currently the bonding total has not changed since the updated layouts and their associated appurtenances were not included in the bond as they will not be built for another two to three years. The following bonding update will be taken into consideration once mining and slurry lining of Cells 2 and 3 commence in two to three years:
- Perimeter seeding updates on Cell 2 due to Cell 2a and 2b combing.
 - Perimeter seeding updates on Cell 3 due to a slight increase in the Cell 3 slurry wall.
 - Additional square footage of slurry wall encompassing Cells 2 and 3.
 - Minor updates to the spillways.

Spillway

The proposed spillway for reclaimed Cell 2 has been realigned to allow flows to enter from the west in the location of the non-jurisdictional drainage and exit at the downstream end of the drainage. Cell 2 has added approximately 100 ac-feet of finished water storage.

Reservoir 2a: 100 percent of reclaimed Cell 2 is within the 100-year floodplain. The following information was considered in designing the spillways and erosion protection:

- The spillway was set on the upstream end approximately two-foot lower than the upstream max water surface elevation, or base flood elevation. This inflow point is the natural low point and will allow for flood waters to fill the pit prior to overtopping.
- The reservoir is approximately 439 acre-feet in volume and the upstream spillway has 1,047 cubic feet per second (cfs) capacity at 2 foot of overtopping depth. The downstream spillway has 491 cfs of capacity at 2 foot overtopping. Each spillway was designed to be able to fill the reservoir so the banks are less susceptible to major washouts. A six-inch per hour rise in flood water would significantly fill the reservoir in approximately 4 hours. This is adequate to protect the non-reinforced banks from severe erosion as the north part of the reservoir would be a minimum of 40-percent full by the time the banks would overtop and potentially erode.
- The reservoir will also be equipped with a discharge spillway at the downstream low point. The discharge spillway will help direct flow as flood waters recede and limit erosion to localized areas. The outflow spillway will potentially serve as an inflow point in conjunction with the upstream spillway depending on how the flood waters rise in the vicinity of these pits.

Reservoir 3: 100 percent of Reservoir 3 is within the 100-year floodplain. The configuration of the reclaimed Cell 3 has changed very slightly and the spillways have not significantly changed. The following information was considered in designing the spillways and erosion protection:

- An inflow and outflow spillway was placed on the north side of Reservoir 3. This spillways will allow water to flow into the reservoir as the invert elevation will be set in the natural low spot of the reservoir grade and is a minimum of one foot below the base flood elevation.

- The reservoir was also equipped with a discharge spillway at the downstream low point. The discharge spillway will help direct flow as flood waters recede and limit erosion to localized areas. The outflow spillway will potentially serve as an inflow point in conjunction with the upstream spillway depending on how the flood waters rise in the vicinity of these pits.

Groundwater Monitoring

Bestway commits to continue to monitor on a monthly basis and annually report the groundwater levels for the duration of the mine.

Sincerely,
CIVIL RESOURCES, LLC.



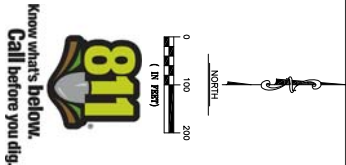
Andy Rodriguez, P.E.

Cc: Mr. Mark Johnson, Bestway Concrete and Aggregate Inc.

Figures:

Figure 2 – Mining Plan

Figure 3 – Reclamation Plan



- LEGEND:**
- EDGE OF ASPHALT
 - EDGE OF GRAVEL
 - EDGE OF CONCRETE
 - BUILDING
 - FLOWLINE
 - FENCE LINE
 - PIPE
 - GAS LINE
 - WATER LINE
 - OVERHEAD POWER LINE
 - SANITARY LINE
 - UNDERGROUND POWER LINE
 - UNDERGROUND TELEPHONE LINE
 - TOP OF BANK
 - TOE OF BANK
 - ONE FOOT CONTOUR
 - 5 FOOT CONTOUR
 - SECTION LINE
 - PROPERTY LINE
 - FLOODPLAIN
 - POTENTIAL WETLANDS
 - STRUCTURE
 - PROPOSED PERMIT BOUNDARY
 - 200' OFFSET
 - BASE FLOOD ELEVATION
 - PROPOSED CONVEYOR BELT
- MONITORING WELL**
- ELECTRIC BOX**
- ELECTRIC METER**
- POWER POLE**
- GAS WELL**
- GAS MARKER**
- STEEL POST**
- WOOD POST**
- SANITARY MANHOLE**
- SANITARY MARKER**
- MAILBOX**
- TELEPHONE PEDSTAL**
- DRAINAGE MANHOLE**
- WATER VALVE**
- WATER METER**
- WATER MARKER**
- SIGN**
- FOUND ALIQUOT CORNER**
- SET ALIQUOT CORNER**
- AS DESCRIBED**
- SLURRY WALL**

FLOODPLAIN INFO:

FLOODPLAIN INFO IS FROM
FIRM FLOOD INSURANCE RATE MAP
PANEL NO. 081231806
EFFECTIVE DATE: JANUARY 20, 2016

NOTES:

CIVIL RESOURCES, LLC IS NOT RESPONSIBLE FOR
SUSTAINING OR MAINTAINING THE FLOODPLAIN
FOR COMPLIANCE BY THE APPROPRIATE PARTY OF
ANY REGULATIONS THERE TO.

THESE MAPS WERE PREPARED BY CIVIL RESOURCES,
LLC, IN COOPERATION WITH BESTWAY CONCRETE,
BESTWAY WILL KEEP THE DIVISION OF RECLAMATION
INFORMED OF ANY CHANGES TO THE MINING OR RECLAMATION PLANS THROUGH
ANNUAL REPORTS AND FILE TECHNICAL REVISIONS
THROUGHOUT THE LIFE OF THE MINE.

PRIOR TO CONSTRUCTION ALL UTILITY, GAS WELL,
DRAINAGE, & WATER WELL LOCATIONS MUST BE
VERIFIED.

APPLICANT:

BESTWAY CONCRETE COMPANY, INC
301 CENTENNIAL DRIVE
MILWAKEN, CO 80543

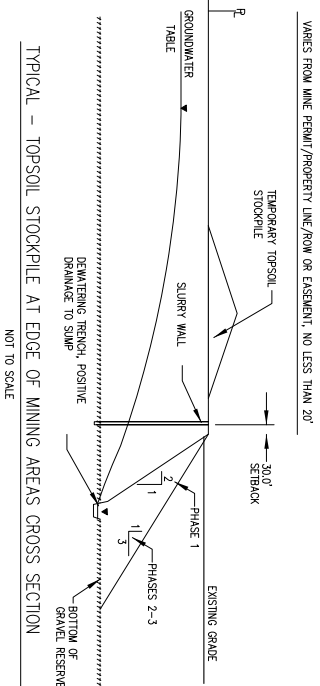
AFFECTED LANDS:

TROGUE LANE TEXAS LLC
LOT HOLDING, LLC
STINAR & VOGL
TOTAL PERMIT AREA:
510.8 ACRES
PROPERTY ADDRESS:
11401 COUNTY ROAD 9 3/4
FREDERICK, CO. 80504

SURVEY INFO:

KING SURVEYORS

650 E. Center Drive | Windsor, Colorado 80550
Phone: (970) 686-5011 |
email: info@kingsurveyors.com



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FREDERICK, CO 80530
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301 CENTENNIAL DR.
MILWAKEN, CO 80543
970.587.7277
CONTACT: MARK JOHNSON

VOGL GRAVEL MINE GRAVEL MINE AMENDMENT WELD COUNTY COLORADO

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADD	4/6/2020
2	TR-04	5/10/2020

DESIGNED BY: ABR. DATE: 09/13/2020
DRAWN BY: ABR. SCALE: AS NOTED
CHECKED BY: ABR. AS NOTED
JOB NO.: 213.001.38
DWG NAME: DBMS-VOGL.DWG

MINING PLAN



CIVIL RESOURCES, LLC
323 5th STREET
P.O. BOX 680
FREDERICK, CO 80530
303.833.1416
WWW.CIVILRESOURCES.COM

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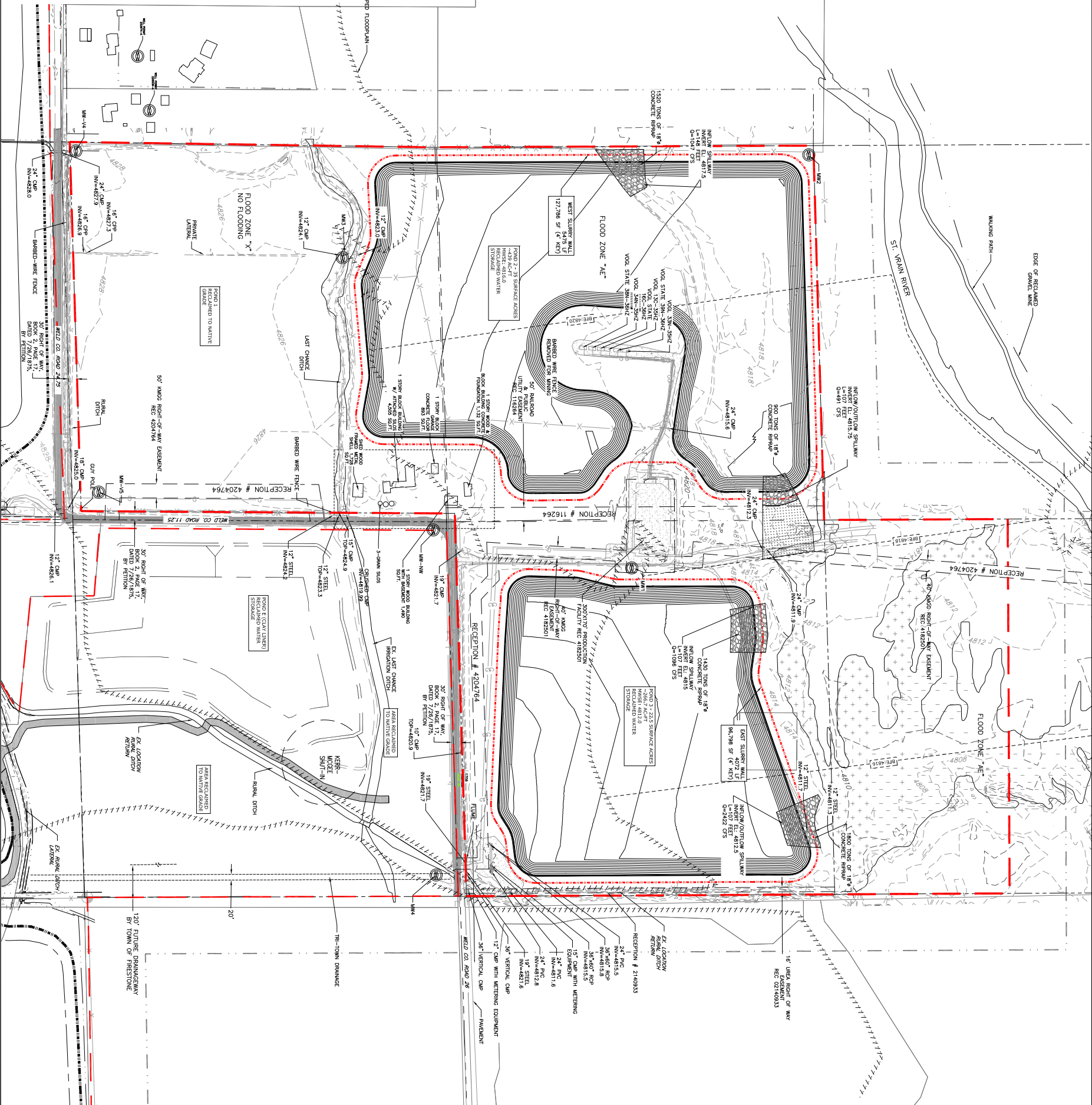
VOGL GRAVEL MINE
GRAVEL MINE AMENDMENT
WELD COUNTY COLORADO

REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	4/6/2020
2	REVISED	5/16/2020

DESIGNED BY: ABR	DATE: 09/13/2020
DRAWN BY: ABR	SCALE: AS NOTED
CHECKED BY: ABR	AS NOTED
JOB NO.: 213.001.38	
DWG NAME: DDBMS-VOGL.DWG	

RECLAMATION
PLAN

3



LEGEND:

—	EDGE OF ASPHALT	①	MOUNTING WELL
—	EDGE OF GRAVEL	Ⓜ	ELECTRIC BOX
—	EDGE OF CONCRETE	Ⓜ	ELECTRIC METER
—	BUILDING	Ⓜ	POWER POLE
—	FLOWLINE	Ⓜ	GAS WELL
—	FENCE LINE	Ⓜ	GAS MARKER
—	PIPE	Ⓜ	STEEL POST
—	GAS LINE	Ⓜ	WOOD POST
—	WATER LINE	Ⓜ	SANITARY MANHOLE
—	OVERHEAD POWER LINE	Ⓜ	SANITARY MARKER
—	SANITARY LINE	Ⓜ	MAILBOX
—	UNDERGROUND POWER LINE	Ⓜ	TELEPHONE PEDISTAL
—	UNDERGROUND TELEPHONE LINE	Ⓜ	DRAINAGE MANHOLE
—	TOE OF BANK	Ⓜ	WATER VALVE
—	TOE OF BANK	Ⓜ	WATER METER
—	ONE FOOT CONTOUR	Ⓜ	WATER MARKER
—	5 FOOT CONTOUR	Ⓜ	SIGN
—	SECTION LINE	Ⓜ	FOUND ALIQUOT CORNER
—	PROPERTY LINE	Ⓜ	AS DESCRIBED
—	FLOODPLAIN	Ⓜ	SET ALIQUOT CORNER
—	POTENTIAL WETLANDS	Ⓜ	AS DESCRIBED
—	STRUCTURE	Ⓜ	SLURRY WALL
—	PROPOSED PERMIT BOUNDARY		
—	200' OFFSET		
—	BASE FLOOD ELEVATION		

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NOTES:
CIVIL RESOURCES, LLC IS NOT RESPONSIBLE FOR SAFETY, IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS THEREOF.
THESE MAPS WERE PREPARED BY CIVIL RESOURCES, LLC, IN COOPERATION WITH BESTWAY CONCRETE, INC. THE DIVISION OF RECLAMATION, MINING AND SAFETY INFORMED OF ANY CHANGES TO THE MINING OR RECLAMATION PLANS THROUGH ANNUAL REPORTS AND FILE TECHNICAL REVISIONS THROUGHOUT THE LIFE OF THE MINE.
PRIOR TO CONSTRUCTION ALL UTILITY, GAS, WELL, OIL, WELL, & WATER WELL LOCATIONS MUST BE VERIFIED.

SEEDING SPEC FOR UPLAND AREAS:

COMMON NAME (VARIETY)	SCIENTIFIC NAME	LBS P.L.S./ACRE
SAND BLUESTEM	(CHAMP, CHET)	1
SAND LOVEGRASS	(BEND, NATIVE, NEZ7)	2.5
INDIAN RICEGRASS	(NEZPAR, RIMROCK)	3
PRAIRIE SANDRED	(GOSHEN)	0.75
GREEN NEEDLEGRASS	(LOODRM)	1.5
LITTLE BLUESTEM	(BLAZE, OMARRON, CAMPER)	0.75
YELLOW INDIANGRASS	(CHEYENNE, HOLT, SCOUT)	0.5
SWITCHGRASS	(BLACKWELL, NEBRASKA 28)	1.5
SAND DROPSEED		0.5
TOTAL LBS PER ACRE:		12.0

10' WIDE ACCESS
ROAD, VARIES IN LOCATION
SEED WITH PREPARED
SEED MIX, THIS SHEET
20' MIN
25' CREST
OVERBURDEN
ALLUVIAL SAND & GRAVEL
CLAYSTONE BEDROCK
SLURRY LINED RECLAMATION DETAIL
NOT TO SCALE

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