

DAANEN & JANSSEN INC.

June 26, 2009

Enclosed please find a copy of our WDNR-NR 135 closure plan for your Board's review.

See you on July 8th at 6:00 PM for the Board meeting.

Thanks
Donna.

Scott



NONMETALLIC MINING RECLAMATION PLAN

PREPARED FOR DAANEN & JANSSEN, INC.

SITE LOCATION:

Part of the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ and Part of the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$
SECTION 4, T.21N., R.20E.
TOWN OF WRIGHTSTOWN, BROWN COUNTY,
WISCONSIN

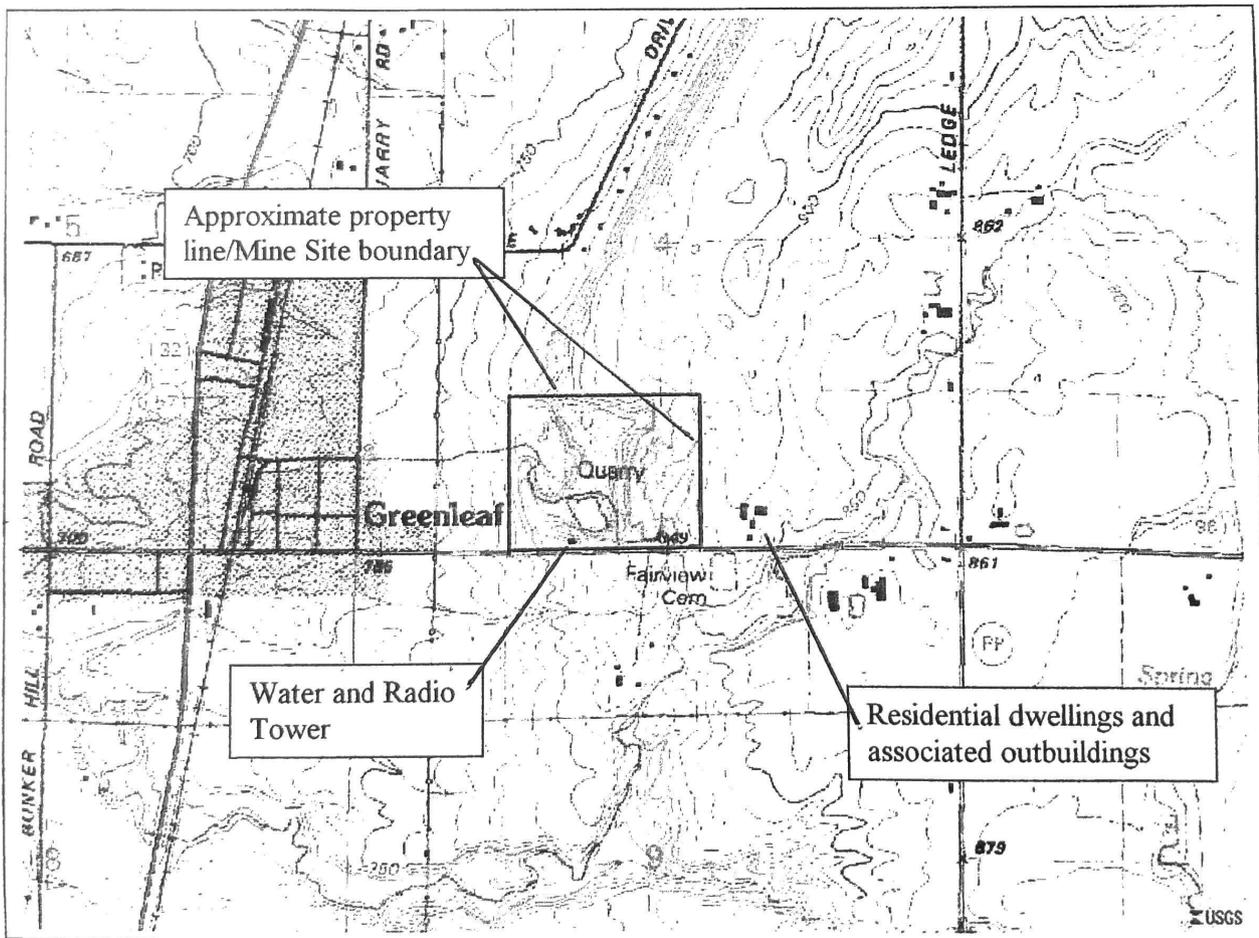
AUGUST 24, 2004

Peninsula Land Management Services Inc.
330 N. 3rd Avenue, Suite 3
Sturgeon Bay, Wisconsin 54235
920-746-5586
plms@doorpi.net

General Location Map

Prepared for
Daanen & Janssen, Inc.
Greenleaf site, Brown County, Wisconsin

- Plan map prepared 8-24-2004
- USGS elevation reference point is the S $\frac{1}{4}$ corner of Section 4 at the centerline of Hwy 96. Elevation = 849'
- Manmade features that exist within 300' of the Mine Site include 1 residential dwelling with associated outbuildings, also a water and radio tower exist near the entrance.
- Onsite drainage is directly related to existing contours (see Mine Site Plan Map)



This nonmetallic mining reclamation plan has been prepared in accordance with Brown County's Non-Metallic Mining Reclamation Ordinance and NR 135, Wisconsin Administrative Code. Any items not referenced in the written document presented are contained in accompanying submittals.

MINE SITE INFORMATION

Dannen & Janssen, Inc. owns and operates a nonmetallic mine in part of the SE $\frac{1}{4}$, SW $\frac{1}{4}$ and part of the SW $\frac{1}{4}$, SE $\frac{1}{4}$, Section 4, T.21N., R.20E., Town of Wrightstown, Brown County, Wisconsin. A plat of survey was completed by Martenson & Eisele, Inc., dated 2/03/2000 and parcel boundary lines are depicted on the enclosed plan maps. The owned parcels contain 46.58 acres. The currently affected by mining area of the site equals 39.0 acres and this area is depicted on the enclosed Mine Site Plan Map. Reclamation material quantities and cost estimates necessary to achieve the planned reclamation have been derived from the areas to be affected by nonmetallic mining.

Limestone is the primary targeted nonmetallic mineral in the mine site though finer texture soils are present at or near the current mine floor and may be excavated as a saleable (fill) product. Primary mine materials exist(ed) immediately under in-situ top and subsoil and extend to an elevation of approximately elevation 774 feet. This determination is made based upon current excavations in the mine site, borings conducted by the applicant and a review of local well construction reports.

The United States Department of Agriculture's (USDA) Soil Survey of Brown County, Wisconsin indicates the presence of Kewaunee Soil Series (B and C slopes, eroded phases) and Kolberg Soil Series on and adjacent to the mine site. The overlying soils have long been stripped and no new native soil disturbances are planned.

The estimated groundwater elevation is 776 feet. The groundwater elevation determination is based upon a recorded elevation of ponded water within the site that remains at a static level based on information obtained from Dannen & Janssen, Inc. employees. This water level estimate may not be a true watertable elevation but a perched water level due to direct surface runoff and water entering the mine along limestone bedrock bedding planes. Water elevation recordings shown on Mine Site Plan Map were made in June 2004. A review of a local well construction report indicates a "static water level" at an approximate elevation of 700 feet above mean sea level though it is apparent that a water level above this elevation is expected based upon site conditions observed and reported by Daanen & Janssen, Inc. personnel.

Manmade features within the mine site include a scale and scale house and a relic building foundation. These are depicted on the Mine Site Plan Map. There is a residential dwelling with associated outbuildings within 300 feet of the mine site (see General Location Map).

Little or no vegetation is present within the active quarry. Adjacent land parcels to the South and East are currently in agricultural land use. Land adjacent to the East is in the process of being developed into a residential land use. Scrub woodlands are present on and adjacent to Daanen & Janssen, Inc's. property in to the North and Northwest of the mine site. Land uses to the West include agriculture and a vacant residential development.

Buckthorn, sumac, boxelder, various grasses, make up the dominant (non-agricultural) vegetation adjacent to the mine site and the applicant's owned parcels. Wildlife species expected to utilize the mine site and adjacent lands include white-tailed deer, red fox, gray squirrel and small rodents. It is expected that various avian species utilize these parcels and include black capped chickadee, swallows and sparrows. Various birds of prey are expected and include American kestrel, red tailed and sharp-shinned hawk.

A small pond (2.4 acres) has been created as a result of mining activity and is depicted on the Mine Site Plan Map. There are differing drainage patters on the mine site and are directly related to the site's topography as shown on the Mine Site Plan Map. Quarry floor drainage is in a Westward direction and has been achieved through operational procedures. This drainage feature is included on the enclosed Mine Site Plan Map.

POST-MINING LAND USE

The designation of the proposed land use for the entire mine site is passive recreational and includes a pond with a planned depth of 6 feet. The surface area of the planned pond is approximately 2.4 acres. Passive recreational means the mine site will be used for low impact recreational use. Typical post mining activities include canoeing, swimming, hiking, sightseeing and other outdoor recreational activities. The proposed land use will accommodate various flora and fauna opportunities. The reclaimed mine site may accommodate commercial or residential structures in the future though they are not included in this plan at this time.

NARRATIVE - NONMETALLIC MINING RECLAMATION, DAANEN & JANSSEN, INC.

RECLAMATION MEASURES

The reclaimed site's proposed topography is depicted on the Final Reclamation Plan Map. The proposed finished grades have been developed and submitted to indicate the furthest spatial and vertical extent of planned mining activity. Due to the uncertainty of the entire site's mineable material availability and long-term market demands for such material it is expected that these extents will not be entirely reached and some areas of the reclaimed site's side slopes, as discussed below, will be more gradual than included in this plan. Furthermore, the applicant shall continue to deposit or relocate undesirable mine site overburden and materials obtained from off-site construction activities within the quarry. These materials may be utilized in constructing the reclaimed site's topography which may result in slopes more gradual than depicted. The proposed topography consists of slopes at or near a vertical angle extending to a reclaimed floor elevation of approximately 776 feet. Portions of the mine's periphery in the South and Southeast will consist of slopes extending from the top of the quarry to the planned floor. The extent and slope of this area is based on the amount of fill material that is obtained through relocating overburden material and offsite material that is brought to the site. See Final Reclamation Plan Map. Constructed slopes receiving soil and vegetation reclamation measures will be constructed at a slope no steeper than a 3 feet to 1 foot (3:1) angle of repose.

The planned reclamation consists of preparing existing subsoil for topsoil or topsoil substitute material application, placing topsoil and seeding and mulching. Areas receiving topsoil and vegetative treatment include the entire mine floor except for the planned 2.4 acre pond. Areas planned to receive vegetative treatment will receive 8 inches of subsoil (already exists on the current quarry floor and is expected in areas planned to be mined) and 4 inches of topsoil or topsoil substitute material.

Other materials that may be utilized in reclamation are included below. No "solid waste" will be utilized in the reclamation.

OTHER RECLAMATION MATERIAL LIST

Tree Stumps	Wood Chips	Brush
Broken Concrete	Brick	Concrete Block
Rock	Overburden	Mining Refuse
Clean Lumber	Boulders	Stone
Reinforced Concrete*		

*Provided safety is not a concern.

If materials mentioned above will be utilized in reclamation they will be placed and compacted, to the extent practicable, to prevent sloughing with earthmoving equipment such as scrapers and large bulldozers. If organic materials such as brush, stumps and other woody materials will be utilized in reclamation they will

NARRATIVE - NONMETALLIC MINING RECLAMATION, DAANEN & JANSSEN, INC.

be placed in layers not to exceed 2 feet and will be covered by at least 2 feet of soil material.

Upon reaching near final grades as a result of backfilling or removing materials at planned slope angles all areas of the planned floor above the estimated seasonal low water table elevation (774 feet) will receive 4 inches of topsoil using front-end loaders, bulldozers, etc. Quantities of topsoil or topsoil substitute material needed to achieve the reclamation as planned is included in the "Reclamation Cost Estimates".

To ensure adherence of topsoil to subsoil (in-situ or placed) the subsoil surface shall be scarified with a tractor and disc, chisel, drag, etc. prior to topsoil placement. Placement and grading of topsoil will occur only during dry conditions to prevent compaction and provide for adequate infiltration. Attempts will be made to place and grade topsoil and apply revegetation measures as soon as practicable.

Woody debris or other refuse, waste rock, etc. may remain or be placed in the planned pond to provide habitat for aquatic organisms. These materials may not be compacted though layering may be implemented to submerge woody materials.

The proposed schedule and sequence for completion of reclamation is anticipated to occur in the following manner. Notes regarding the proposed sequence of reclamation activities are included on the Progressive Reclamation Plan Map. Operational procedures will continue from within the active quarry, in the site's Northeast region, and be completed upon final removal of the available limestone resource. Extraction of soil material from the planned pond will commence upon the applicant's desire to obtain substratum to backfill any sideslopes that will be created or to apply this material on the planned quarry floor. Backfilling of the Southern quarry wall is currently being conducted. Quarry floor reclamation activities are planned to commence within 5 years and upon the applicant achieving adequate operational areas and while maintaining adequate drainage. The estimated timetable for completing reclamation of the entire mine site is 10 years.

Current reclamation material stockpiles are located and designated on the Mine Site Plan Map. Other areas advantageous to performing the planned reclamation may be utilized for reclamation material stockpiling. In general, these locations will occur in the vicinity of planned peripheral mine limits though some stockpiling may occur in central locations where it will be relocated.

Temporary seeding and mulching of topsoil or topsoil substitute material stockpiles that will be utilized in reclamation will be conducted within 30 days after it is stockpiled. Attempts will be made to achieve final stockpile dimensions as rapidly as possible so they may be seeded in order to keep the duration of exposed surfaces to a minimum and prevent soil loss. If temporary seeding of

NARRATIVE - NONMETALLIC MINING RECLAMATION, DAANEN & JANSSEN, INC.

stockpiles will not occur within 30 days of topsoil placement silt fence or earthen and vegetated berms will be installed to prevent topsoil loss. Stockpiled topsoil or topsoil substitute material will be stabilized according to the methods described in the "Re-vegetation Plan".

A minimum of 4 inches of topsoil or topsoil substitute will be applied to all areas scheduled to receive soil and vegetative treatment with a planned elevation of 774 feet and greater or at the apparent water level within the quarry. Eight inches of subsoil will be applied to any areas planned to receive topsoil and vegetative treatment. Topsoil to be used in reclamation is expected to come from the "D&J Quarry" in the Town of Glenmore although various soil materials will continue to be brought into the site from various sources. It is expected that reclamation topsoil or topsoil substitute material will vary in characteristics. If a topsoil substitute is used it will likely consist of a combination of sub and topsoil that will have a texture, structure, bulk density, available water capacity and pH favorable and adequate to reclaim the mine site as planned. The organic matter content and cation exchange capacity of the topsoil substitute material will be enhanced within the first growing season and continue thereafter.

Safety measures currently installed, and planned to remain upon cessation of mining, at the mine site include a 4 feet high woven wire fence (typical Wisconsin Department of Transportation highway fencing) and an earthen and vegetated berm (5 feet average height) which is located between the quarry and the aforementioned fence. The extent of these safety features is depicted on the enclosed plan maps. Densely wooded and other vegetation acts as safety measures in areas where the aforementioned fence and berm is absent. A gate exists at the quarry's entrance and will remain upon cessation of mining. Additional safety measures include the scaling of quarry highwalls to reduce the possibility of falling rock. Scaling will be conducted through operational procedures and be performed with the bucket of a large excavator. Warning signs are currently installed, and will remain, on or near the applicant's propertyline.

RE-VEGETATION PLAN

Re-vegetation will be accomplished with a hydroseeder, traditional broadcast seeder or seed drill and occur as soon as practical after final placement and preparation of topsoil. Seedbed preparation will consist of placing topsoil materials and distributing as uniformly as possible with appropriate equipment such as a disc, harrow or drag. Attempts will be made to perform final soil placement and seeding when favorable current and forecasted weather conditions exist. Attempts will be made to perform seeding between the months of April and May and the months of August and October.

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All disturbed mine site areas planned to be revegetated will receive the following treatment unless an alternative seeding is proposed and approved by the regulatory authority. Daanen & Janssen, Inc. is considering the initiation of some vegetative test plots to determine the degree of success attainable given the site's conditions and available reclamation soil characteristics. It is in the best interest of the operator to achieve a rapid and effective ground cover upon cessation of mining. However, a diverse seed mixture with species favorable to specific wildlife species or desired habitats can add to the character of the mine site. Diversity is encouraged.

<u>Species</u>	<u>Rate Hydroseeded</u>	<u>Rate Traditionally seeded</u>
Smooth brome grass	100 pounds/acre	50 pounds/acre
Perennial ryegrass	75 pounds/acre	30 pounds/acre
Creeping red fescue	50 pounds/acre	25 pounds/acre
Annual ryegrass	4 bushels/acre	4 bushels/acre

Re-seeding will be conducted when necessary to achieve a successful reclamation.

Fertilizer will be applied according to soil test recommendations. In lieu of a soil test 19-19-19 (N-P-K) fertilizer will be applied to all areas at a rate of 200 pounds per acre. If hydroseeding is conducted "Hydromulch" or similar with a tackifier will be applied to all areas at a rate of 1,500 pounds per acre. Straw mulch will be utilized (if hydroseeding is not conducted) at a rate of 1 to 1.5 tons per acre. Straw mulch will be anchored with biodegradable netting, a mulch crimper or other mulch anchoring method where necessary.

Temporary seeding of stockpiled soil material will receive annual ryegrass at a rate of 10 pounds per acre and orchardgrass at a rate of 30 pounds per acre. Straw mulch will be applied at the aforementioned rate to provide adequate soil protection until vegetation is established.

SUCCESSFUL REVEGETATION CRITERIA

Reclamation will be considered complete when a plant density of 10 or more seedlings per square foot is established. Criteria for successful reclamation shall adhere to Wisconsin Technical Note – Agronomy – WI – 1, Guidelines for Herbaceous Stand Evaluation (May 15, 1991), a copy of which is enclosed.

Plant density determination shall be accomplished by one-foot square foot frame count technique. Determination of stand density shall be conducted at the end of first growing season or May 31 for seedings conducted in the Fall.



Peninsula Land Management Services
46 E Redwood Street
Sturgeon Bay, Wisconsin 54235
920-746-5586

August 15, 2006

David Wetenkamp
Brown County Land Conservation Department
1150 Bellevue Street
Green Bay, WI 54302

Re: Non-Metallic Mining Reclamation Plan Addendum (Greenleaf Quarry)

David:

The attached reclamation plan addendum addresses your request for additional information or clarifications as outlined in your correspondence that Scott Janssen and I received on October 13, 2004. Necessary items are enclosed as addendums to the original August 24, 2004 submittal and correspond to your specific outline item numbers.

As you will see the final reclaimed site characteristics have changed substantially. Included in the addendum responses is discussion of the methodology that will be utilized to achieve the planned reclamation.

Do not hesitate to contact me with any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Konarzewski", is written over the typed name.

Ben Konarzewski

CC w/Enclosures: Scott Janssen

ADDENDUM TO AUGUST 24, 2004 SUBMITTAL

1) 11) Existing Drainage Patterns

The original 8/24/04 Mine Site Plan Map contains the significant surface water drainage patterns/directions as indicated by blue arrows. In addition, the Highway 96 right-of-way contains a road ditch that conveys surface water runoff in a Westerly direction.

Surface water drainage that currently enters the subject mine site originates from lands to the East and Northeast. The surface area of these lands equals approximately 18 acres. It should be noted, however, that current land management practices occurring on the land parcel immediate to the East consist of a series of basins that detain a portion of surface drainage. It is unclear at this time what additional stormwater management practices may be installed and maintained on this parcel. Existing earthen berms also detain a portion of external surface water from entering the mine site. These berms are planned to be maintained or enhanced.

Daanen and Janssen, Inc. has incorporated as part of their Final Reclamation Plan best management practices that eliminate the entry of surface water from the East and Northeast via the planned enhancement of the earthen berm/diversion that will result in conveyance of surface water into the Highway 96 road ditch (see Amended Final Reclamation Plan Map and additional narrative discussion contained herein).

1) 15) Earthwork and Grading

Quantities to achieve the planned reclamation are outlined in 1) 19). Cross sections have been included to depict the final reclaimed site conditions.

Achieving the final reclaimed site conditions as depicted on the enclosed Amended Final Reclamation Plan Map is planned to be completed in the following manner.

The planned water feature (ponds and channel) will be blasted to a depth of 20 feet and extraction and side slope construction will be achieved with an excavator. Materials from the water feature extraction consist of shale, rotten shale and some clay soil material that overlies the shale bedrock. This clay/shale interface exists within 2 feet of the planned quarry floor (elevation 776 feet).

These materials will be utilized to construct the planned safety berm as depicted on the Amended Final Reclamation Plan Map and cross section details (enclosed). The berm shall be constructed and graded to a height of 5 feet and possess 3:1 sideslopes resulting in a bottom width of 30 feet. The exception to this planned feature occurs in the mine's Southeast region where blasted materials will be placed and graded at a

2:1 slope extending from the planned water feature upward and into the quarry highwall (see enclosed plan map for details).

This shale berm will act as a safety measure that deters individuals from the planned highwall toe. In addition, a 30 feet wide flat safety buffer area shall be maintained, extending from the highwall toe to the outer edge of the safety berm. No topsoil or vegetative treatment is planned for these safety measures. It is expected that opportunistic woody and herbaceous vegetation will inhabit this material within a few years after placement.

A segment of existing highwall in the site's Northwest region will be backfilled with the aforementioned shale material, receive topsoil or topsoil substitute material (exists on the mine site) to achieve a 3:1 slope. This region will receive revegetation treatment as described in the original 8/24/04 submittal.

The existing highwall along the site's West boundary will be negated as bedrock extraction will occur as depicted on the enclosed plan map. Except as noted the final quarry floor will be left untreated and remain in a safe and stable condition.

Safety measures that shall be implemented outside of the mine area to deter individuals from the top of the quarry highwall include the installation of a 5 foot high woven-wire fence and earthen berm construction or enhancement. The location and extent of these safety measures are included on the enclosed plan map. As previously indicated signs warning of the quarry highwall will be maintained or installed. These signs shall be placed at approximately 200 foot intervals.

The earthen berm located near the top of the quarry highwall will be constructed to a height of 5 feet and possess 3:1 sideslopes resulting in a bottom width of 30 feet. The exception to the 5 foot high berm occurs in the site's Southeast region where limited area (width) exists. The earthen berm shall be constructed in this region though its height will be dictated by the available area between the highwall precipice and the applicant's property line.

This earthen berm will be constructed with overburden and topsoil or topsoil substitute material that currently exists within this area. The safety berm will receive revegetation measures as described on pages 5 and 6 of the original 8/24/04 submittal.

All quantities and cost estimates to achieve final reclaimed site characteristics as described are included in 1) 19) below. All safety berms described herein will be rough and fine graded with bulldozers.

Since the amount of substrate material extracted for water feature creation will exceed the amount of fill material to construct the safety features previously described it is expected that other areas within the mine site will be backfilled to reduce remaining

highwall slopes. It is likely that if excess material is utilized in this manner its placement will occur along the Southern highwall, between the planned pond and the existing access ramp toe. In lieu of utilizing this material for further site reclamation the excess material will be removed from the mine site.

1) 18) Structures

The existing scale and scale house shall be removed upon the cessation of mining. The existing concrete building foundation located along the Western parcel boundary will remain upon cessation of mining.

The planned installation of safety berms (outside and inside the existing quarry), safety buffer area or sloped backfill area near the quarry highwall toe, safety fence and signs warning of the remaining highwall shall be maintained by Daanen and Janssen Inc. or subsequent owners of the site in perpetuity or until safety concerns change or zoning laws require other measures.

1) 19) Cost

Drilling and blasting for water features

$$228793 \text{ Tons} \times \$0.50/\text{Ton} = \$114397$$

Excavating/removing blasted material

$$95184 \text{ yds}^3 \times \$0.50/\text{yd}^3 = \$47592$$

Placement and grading of blasted material for slope backfill and berm construction

$$8700 \text{ yds}^3 \times \$0.50/\text{yd}^3 = \$4350$$

Placement and grading of topsoil/topsoil substitute material (4") in Northwest area (0.45 acres)

$$243 \text{ yds}^3 \times \$0.50/\text{yd}^3 = \$121$$

Re-grade existing berm (upper-outside mine site)

$$6000 \text{ yds}^3 \times \$0.50/\text{yd}^3 = \$3000$$

Seed and mulch

$$1.7 \text{ acres} \times \$750/\text{acre} = \$1275$$

5' Woven-wire fence

$$3400 \text{ linear feet} \times \$5/\text{ft} = \$17000$$

$$\text{TOTAL COST ESTIMATE} = \$187735.00$$

Note: Warning signs on or near the subject parcel and a dimension stone barrier along the North side of the access road already exists and shall be maintained.

1) 22) Erosion Control

Runoff from the reclaimed site will remain in its current location and no increased quantities or velocities are expected. Upon removing mineable material and achieving final reclaimed grades in this area the outlet channel will be protected from scouring and erosion by the re-grading and additional placement of on-site rock rip-rap. Rip-rap shall be placed to a depth of 12" (minimum), span the width of the outlet channel and extend up into any side slope a minimum of 12". The stone aggregate shall consist of stone ranging from 4" (minimum) to 12". Based upon the enclosed Amended Final Reclamation Plan Map the length of the rip-rap outlet channel will be approximately 60 feet in length.

1) 23) Criteria for Successful Reclamation

Daanen and Janssen, Inc. staff shall be responsible for conducting vegetation analysis and in determining when the achieved reclamation has been conducted and ready for Brown County's inspection.

RECLAMATION CERTIFICATION

I hereby certify that the information provided in this plan and accompanying documents are true and accurate and that reclamation will be carried out in accordance with the approved reclamation plan.

Scott W. Janssen
Signature of Operator or Duly Authorized Agent

8/18/06
Date Signed

I hereby certify that I have been provided with a written copy of the reclamation plan.

Scott W. Janssen
Signature of Owner

8/19/06
Date Signed

This reclamation plan has been prepared by Ben Konarzewski, Peninsula Land Management Services Inc. Phone 920-746-5586