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# FAX TRANSMISSION

WHITE OAK MINING & CONSTRUCTION CO., INC.

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To: PAMELA GRUBAUGH LITTLE Date: 6/15/99

Fax #:

Pages: 10 , including this cover sheet.

From: MARK WAYMENT

Subject: PERMIT RENEWAL.

ACT/009/001  
#2  
Copy

COMMENTS:

PAM- Attached is the letter I promised <sup>Wendy</sup> we talked ~~to~~ last week. I waited until today because Dave Bruse at Hansen thought he would have the calculations finished today and I was hoping to just get everything in. They need another day or two and we really need to proceed with publication if we can, therefore the attached letter. I will also hand deliver this tomorrow afternoon and would like to review it with you and/or Darin if possible. I will call tomorrow.

Thanks,  
Mark Wayment

**WHITE OAK MINING & CONSTRUCTION CO., INC.**  
SCOFIELD ROUTE  
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June 15, 1999

Ms. Pamela Grubaugh-Littig  
Permit Supervisor, Coal Program  
State of Utah, DNR, DOGM  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

Re: Permit Renewal Application, White Oak Mining and Construction, Inc.  
White Oak Mine, ACT/007/001-RN99, Folder #2, Carbon County, Utah

Dear Ms. Grubaugh-Littig:

Attached are various documents related to the "Highwall Retention / Elimination" issue at the White Oak Mine Complex. These documents are part of the work that is necessary to respond to the Highwall issue. While both White Oak and DOGM have acknowledged that the two highwalls in question are both "pre-law" (built before May 3, 1978), the calculations presented in our current Mining and Reclamation Plan (MRP) have been found deficient to show how much of the Highwalls will remain. To update the situation, we will submit a revision to our MRP by June 24, 1999 that will show the calculations and drawings required by DOGM's letter of March 3, 1998.

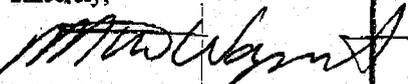
As an interim step, the following documents are attached to show the work currently being done:

1. June 8, 1999 letter from David Hansen and David Bruse to White Oak certifying that the original work on the MRP (completed and submitted by Hansen Allen Luce in June, 1995) did find that there was insufficient fill material available to completely reclaim the Highwalls on the mine site, and that they will obtain the old software to re run the calculations as soon as possible.
2. Two 3-D drawings, #R-12 and R-13, copied from the MRP that show the pre and post reclamation topography of the mine site. Please note that drawing #R-13 clearly shows a highwall remnant at the Highwall #1 location, which would seem to confirm that there will not be enough fill to fully reclaim both highwalls.
3. Pages #R-10, R-11, R-12, and R-13 of the current MRP where we have marked phrases that indicate the intent of the current plan is to eliminate highwalls "to the extent practical..." and restore the post reclamation contours as closely as possible to the predisturbance contours. These pages also reference cut and fill calculations and volumes in Appendix R2, but we have not been able to find any copy of the MRP (including the one in DOGM's library) that actually has the volume numbers in Appendix R2. It is these cut and fill volume balances that White Oak has requested Hansen Allen Luce to reconstruct. Unfortunately, as indicated in the letter from Hansen, the software that was used to make the calculation is old and must be obtained from the original vendor. This is why it is taking some time to redo the calculations.

On the basis of the above statements and the attached documents, White Oak is respectfully requesting permission to move forward with the publication phase of the permit renewal process.

Thank you for your attention to this matter and please call me if you have any questions.

Sincerely,

  
Mark D. Wayment  
Manager, Technical Services

cc: Larry Jones  
Denise Drago, Snell and Wilmer  
Vicky Miller, Earthfax

**HANSEN  
ALLEN  
& LUCE Inc**

SALT LAKE AREA OFFICE  
6771 South 900 East  
Midvale, Utah 84047  
Phone: (801) 566-5599

Mr. Mark Wayment  
Manager Technical Services  
White Oak Mining & Construction Co. Inc.  
HC35 Box 370  
Helper 84526

June 8, 1999

RE: Clarification of Reclamation Cut and Fill Balances.

Dear Mark:

We provide the following information in response to your inquiry regarding mass cut and fill volumes for reclamation at the Belina mine. We have reviewed both our computer and hard copy files and have found that the mass balance calculations requested are not immediately available. The calculations were done in Eagle Point software which has been upgraded several times since 1993 when the calculations were made. The software has a proprietary format, and we were not aware until today that the new software would not read the old format, and have therefore not kept outdated versions on file. In order to access the data, one would have to either locate and re-install the old program, or contact Eagle Point for assistance.

David Bruse and myself were directly involved through the design and permitting process, and although we don't have the computer files readily accessible, we can certify that the following occurred.

1. HA&L made at least three computer runs to "balance" as reasonably possible the cut and fill volume. The first run had significant excess fill, the second some excess cut, and the third a small amount of excess fill. Minor adjustments to the contours made significant volumetric changes.
2. As best as we can recollect, there was less than 100,000 ft<sup>3</sup> excess fill in the final balance.
3. The reclamation design was completed using, as best as possible, all available fill.
4. There was found to be insufficient material to completely reclaim the highwalls in the vicinity of the Belina mine.
5. The 3-dimensional drawings provided in the permit represent fairly accurately the anticipated deficit to accomplish complete highwall reclamation.

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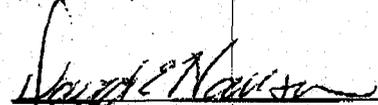
Consulting Engineers Specializing in Water Resources,  
Civil and Environmental Engineering

Mr. Mark Wayment  
June 8, 1999  
Page 2 of 2

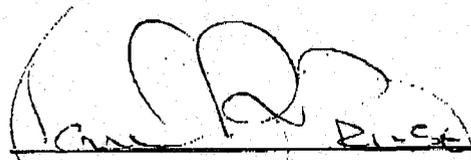
We hope the above information provides you with sufficient clarification to address the issues at hand.

Sincerely,

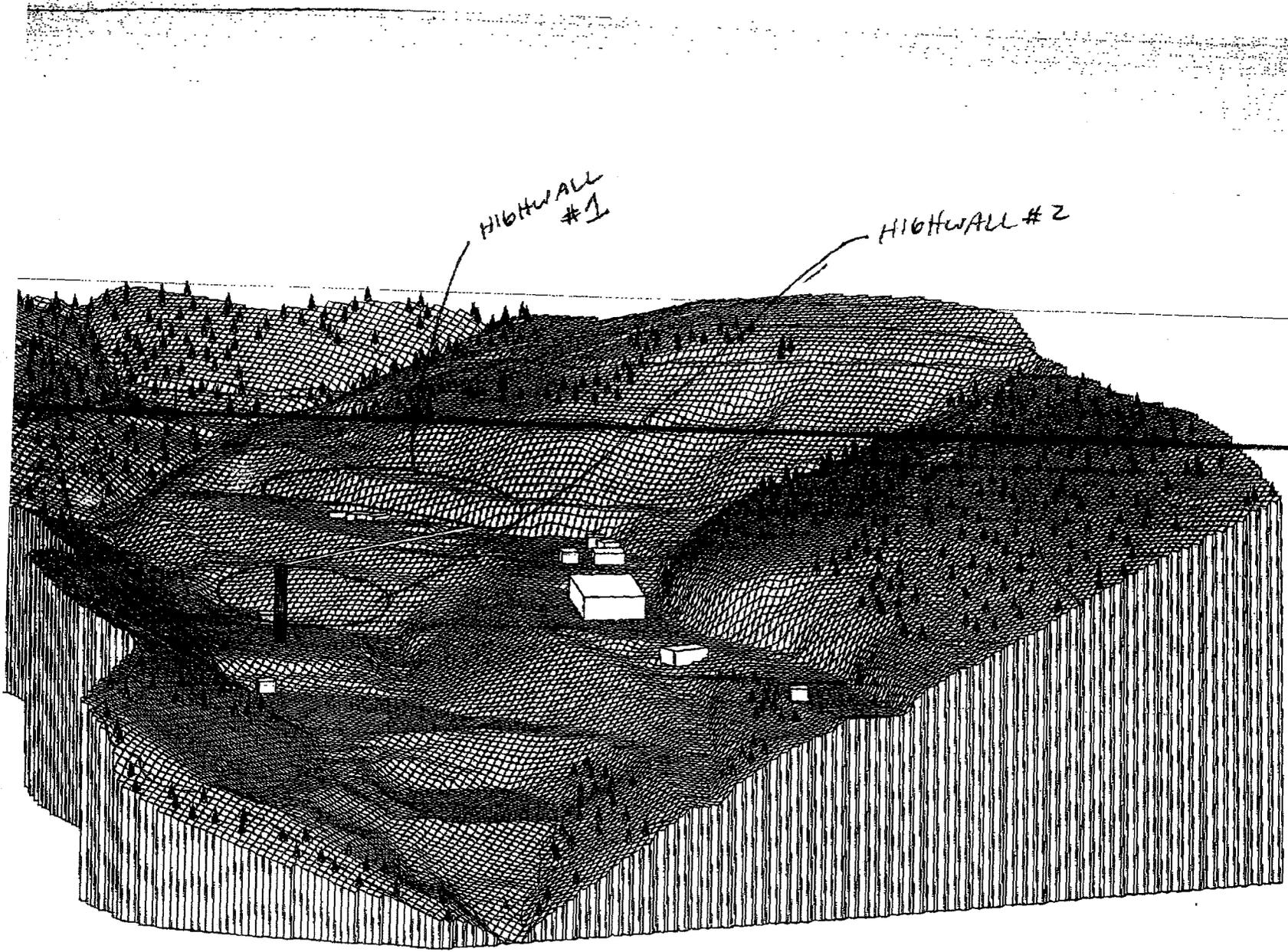
**HANSEN, ALLEN & LUCE, INC.**



David E. Hansen, Ph.D., P.E.  
Principal



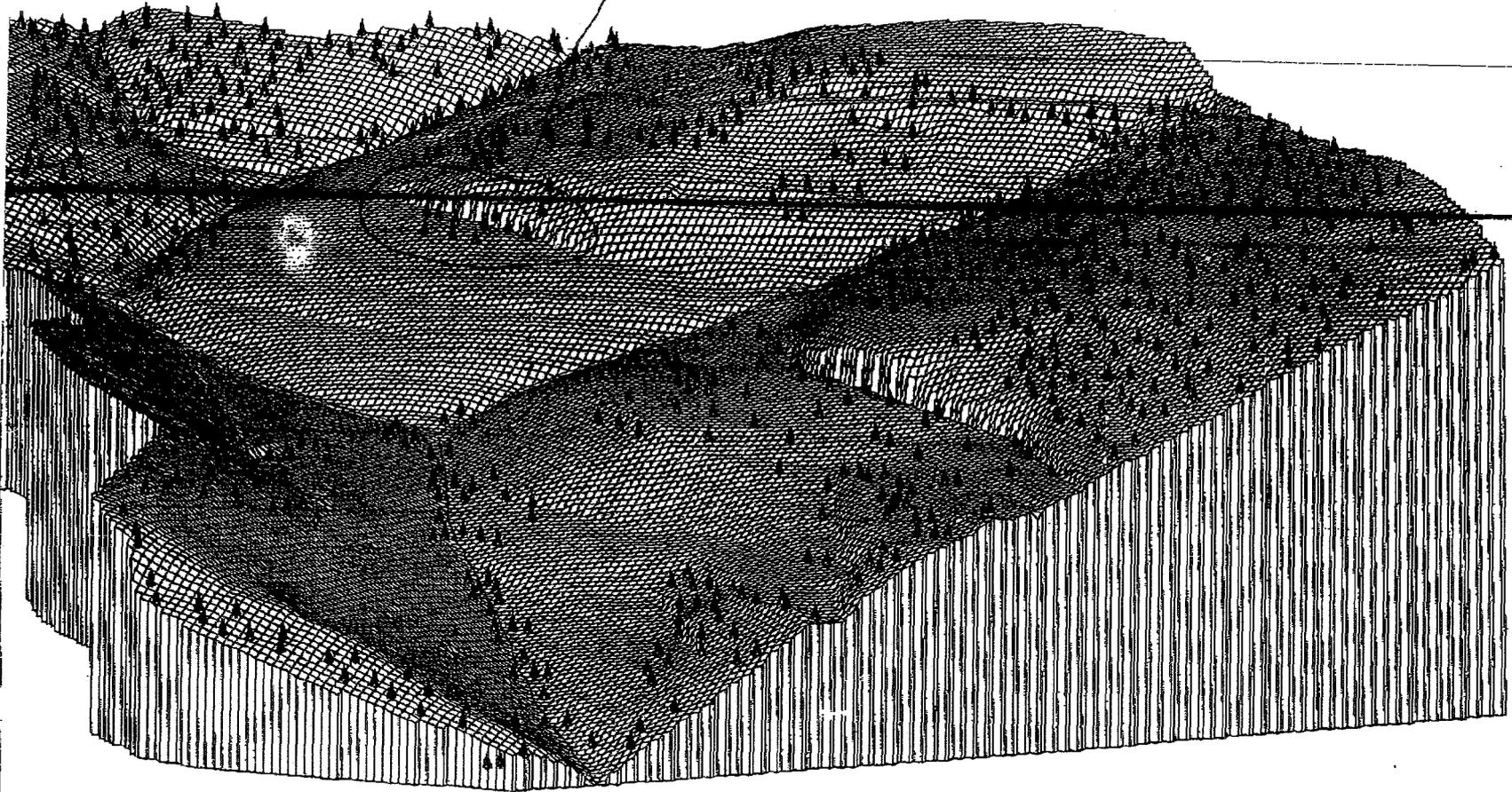
David R. Bruse  
Manager - Technical Services



WHITE OAK MINING & CONSTRUCTION CO., INC.  
SCOTFIELD ROUTE, HELPER, UTAH 84526

WHITE OAK COMPLEX - DISTURBED  
3-D VIEW

HIGHWALL #1 REMAINING AFTER RECLAMATION  
REMNANT



WHITE OAK MINING & CONSTRUCTION CO., INC.  
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WHITE OAK COMPLEX - RECLAIMED  
3-D VIEW

FIGURE  
R-13

\* all surface facilities with the exception of non-White Oak railroad lines and concrete foundations buried 18" below final grade, 2) the restoration of the land surface to a configuration which conforms as much as practical and/or possible to the undisturbed natural topography, 3) the installation of runoff control channels and/or erosion protection devices, and 4) the restoration and/or augmentation of vegetation. The following discussion identifies planned reclamation activities and concerns including demolition and cleanup, reclamation contouring, runoff conveyance control, and vegetation.

### Demolition and Cleanup

All mining related structures located within disturbed areas will be demolished, salvaged or otherwise removed with the exception of concrete foundations buried 18" below final grade, all mine portals will be properly sealed, and the area cleaned up, regraded and restored to meet reclamation requirements as identified herein. All asphalt will either be hauled to a State approved disposal facility or reprocessed and donated to UDOT for use as a resource for State highways. Reclamation costs have been calculated based upon the assumption that all asphalt will be hauled to an appropriate disposal facility. The concrete will be scarified and crushed with heavy equipment and utilized to backfill the portals, used as aggregate for lean concrete to backfill the portals or placed as fill against the toe of the backslope in the first lift placed during reclamation. Specifics related to planned demolition and cleanup activities for each major category are hereafter described.

### Disposal Facilities

Should a disposal facility be required during reclamation to aid in the demolition and cleanup phase, it will be designed using current prudent engineering practices and will meet the regulations set forth by the Division. The actual location for this type of facility (should it be needed) will be determined during reclamation so as to insure that the most advantageous location can be utilized. Location will take into account AOC concerns, stability of existing foundations and or abutments, weak zones and groundwater effects upon the facility. Such a facility will be approved by the Division prior the implementation.

### Mine Openings

All mine openings will be sealed with block stoppings, and backfilled with either lean concrete or competent material, at a depth of not less than 25 feet inby (inside) the portal mouth, or original faceup or in the case of the White Oak No. 2 Manway, sufficient stable cover and outby (outside) from the stopping will be back filled to the surface. All portals at the Loadout Facility have caved tight near the 25 foot area, were considered dangerous, and were barricaded (backfilled) as per MSHA instruction. In addition to current backfilling, each opening will be recontoured at the time of reclamation to the approximate original contour as shown on the reclamation design drawings.

### Roads

Any road not to be retained for postmining land use or is no longer needed for mining and reclamation operations will be immediately closed to public travel, whereafter all culverts will be removed and disturbed surfaces recontoured and revegetated as per this Reclamation Plan.

**White Oak Loadout Facility.** The existing paved road at the Loadout Facility connecting the highway with the railroad tracks by the coal stockout tube will be stripped of its oil surface and disposed of as previously mentioned, leaving the gravel road base for continued railroad access. The D&RGW

(SP) will continue to utilize the gravel road to gain access by railroad personnel to the tracks and adjacent area in the vicinity of the stockout tube. Should the operators of the railroad desire an oiled road surface rather than a gravel road at the time of reclamation, then the oiled surface will remain.

All other roads associated with the Loadout Facility will be removed upon reclamation. Removal of the existing White Oak railroad spur (most easterly track) will allow continued north and south access along the east side of the railroad tracks. Ongoing roadbed maintenance will be the responsibility of the D&RGW (SP) railroad company.

**General Office Area.** Since the General Office is to remain upon reclamation, no changes will be made to existing roadways essential to its continued use. If the post mining land use changes, an amendment to the Reclamation Plan will be submitted.

**White Oak Haul Road.** All asphalt associated with the White Oak Haul Road will be removed upon reclamation. Asphalt products salvaged will be either 1) crushed and hauled to a State approved facility or 2) recycled and reprocessed for use in neighboring towns or by UDOT for streets or road construction purposes. All asphalt will be removed from the White Oak Haul Road during Phase I of reclamation so as to minimize impacts to the surrounding environment during the reclamation period.

**White Oak Complex.** All asphalt roads associated with the White Oak Complex will be reclaimed in the same fashion as those for the White Oak Haul Road.

### Structures

All surface equipment, structures, or other facilities found within the White Oak Permit Area not required for continued underground mining activities and monitoring (unless approved by the Division as suitable for post mining land use or environmental monitoring) will be removed and the affected lands reclaimed. Exceptions to the removal of all structures include the roadbed associated with the operation of the railroad which traverse the Loadout Facility site, or which are associated with the office facilities located west of the Loadout Facility and Highway 96 as discussed earlier. Railroad facilities to remain consist of two railroad lines, an access road, and railroad drainage culverts. Drainage culverts which will remain meet the post mining land use requirements of the railroad since they are used to control surface water runoff.

### Reclamation Contouring

Reclamation activities for the White Oak property include the stabilization of slopes, minimization of erosion, reduction of water pollution, and the supporting of approved postmining land uses. The plan included herein for backfilling, soil stabilization, compacting and grading includes contour maps, cross sections and three dimensional views exhibiting the anticipated final surface configuration of the disturbed areas, in accordance with the applicable regulations. Where reasonably possible the final reclaimed contour will match the predisturbance contour as represented on maps included with this Reclamation Plan. All maps included herein have been prepared and certified as described under Section 512 of the rules and regulations.

In general, all drainages will be restored to the degree possible to premined conditions by removing all fill material, regrading, and reshaping of the adjacent terrain. Reclamation contours will match those found naturally at the point of contact, and where possible, reclaimed contours will be constructed at

slope angles less than those found naturally. Generally speaking, all fill material placed as a result of road construction in the vicinity of local drainages will be removed, and the reclaimed drainages will be excavated (or filled) to the degree possible to local natural grades as determined in the field.

In order to develop reclamation contouring and associated volumes, both existing and future reclaimed contours have been entered into AUTOCAD for the entire disturbed area. Cut and fill volumes associated with reclamation activities were then developed utilizing Engineering Data Systems (EDS) software. Since soils which will be removed are not native undisturbed soils, but were placed during mine development, it was recommended by a professional geotechnical engineer that a compaction factor of 5% be added to the calculation of all cut materials. Calculations shown in Appendix R2 reflect this recommendation.

Once cut and fill volumes were determined, mapping was prepared to illustrate both reclaimed contours as well as computer generated renderings of final surface configurations for critical areas. Three dimensional renderings have been completed for the Loadout Facility Area, the White Oak Complex, the White Oak Haul Road, and two areas along the White Oak Haul Road including a typical view along the north slope of the lower section of the road and a view of the Big Fill area (see Figures R-1 through R-13).

- FIGURE R-1. White Oak RECLAIMED CONTOUR
- FIGURE R-2. White Oak DISTURBED 3-D VIEW
- FIGURE R-3. White Oak RECLAIMED 3-D VIEW
- FIGURE R-4. White Oak Haul Road - RECLAIMED CONTOUR
- FIGURE R-5. White Oak Haul Road - DISTURBED 3-D VIEW
- FIGURE R-6. White Oak Haul Road - LOWER SECTION DISTURBED 3-D VIEW
- FIGURE R-7. White Oak Haul Road - BIG FILL SECTION DISTURBED 3-D VIEW
- FIGURE R-8. White Oak Haul Road - RECLAIMED 3-D VIEW
- FIGURE R-9. White Oak Haul Road - LOWER SECTION RECLAIMED 3-D VIEW
- FIGURE R-10. White Oak Haul Road - BIG FILL SECTION RECLAIMED 3-D VIEW
- FIGURE R-11. White Oak Complex - RECLAIMED CONTOUR
- FIGURE R-12. White Oak Complex - DISTURBED 3-D VIEW
- FIGURE R-13. White Oak Complex - RECLAIMED 3-D VIEW

\* Because cut and fill volumes were determined via AUTOCAD, numerous cross sections typically required for hand calculation are not shown as part of the reclamation calculations. However, typical sections have been added at each of the major areas to show typical reclaimed sections. Specifically, cross sections have been developed for selected areas of the Loadout Facility, the White Oak Haul Road, and the White Oak Complex. These cross sections are included within Appendix R2.

Additional general concepts associated with reclamation contouring which have been implemented (or will be at the time of construction) into the Reclamation Plan throughout the disturbed Permit Area include:

- Areas having either undisturbed or re-established vegetation will not be disturbed upon reclamation unless it is necessary to obtain the approximate final surface configuration identified within this Reclamation Plan. Contour limits presented on reclamation drawings were developed based upon photographic and field observation of established vegetation. At the time of reclamation, representatives from both the Operator and UDOGM will concur on appropriate

vicinity for wildlife enhancement, however, the overall steepness of the surrounding terrain made that impossible without the construction of non-acceptable post mining facilities such as concrete retaining walls. The small stream bed will be re-established at the time of reclamation as shown on reclamation Map 527 - Sheet 8, in calculation details provided in Appendix R1, and as shown topographically as existing and reclaimed 3-D views on Figures R-5, R-7, R-8 and R-10.

**White Oak Haul Road - Upper Section.** Reclamation contouring of the upper section of the White Oak Haul Road above the "Big Fill" consists mostly of uniform regrading and the development of minimum slopes (thereby creating benches). In many instances the existing road base has been utilized to aid in the development of these terraces. As with other areas, these terraces have been created to enhance local wildlife habitat. A graphical 3-D view of the existing and reclaimed White Oak Haul Road is shown on Figures R-5 and R-8.

#### White Oak Complex

Excess material excavated at the time of reclamation from the coal loadout pad will be placed appropriately either along the White Oak Haul Road or as backfill material near the White Oak Complex as shown on the reclamation drawings previously discussed. The majority of fill material used to achieve the recontouring efforts at the White Oak Complex will be obtained from the lower pad area and the embankment and foundation associated with Sediment Pond 004A. No material will be moved or transported between the Loadout Facility and White Oak Complex areas.

\* Recontouring of disturbed areas at the White Oak Complex has been governed through the re-establishment of approximate original premined contour along the drainage flow path and the design requirements of runoff conveyance channels. At the time of reclamation, disturbed areas will be recontoured as represented on Maps 527 - Sheets 12 through 14 in such a manner that either 1) the approximate original contour is re-established or 2) deliberate variations are incorporated to enhance local wildlife and/or vegetation. No recontouring of slopes along the power supply lines entering the White Oak Complex are planned at this time because of 1) little overall disturbance has occurred along the power line, 2) additional disturbance will only increase the potential for environmental damage, and 3) extensive natural revegetation which has been re-established over time would be destroyed.

Enhanced surface variations from premined or undisturbed conditions may include the creation of flatter areas, ledges or meadows consistent with those created along the White Oak Haul Road, or the unmodified exposure of rock outcrops such as the one found immediately southeast of the coal stockout tube. The Reclamation Plan includes these planned surface features as a method on enhancing wildlife and vegetation while at the same time providing a varied and visually attractive land surface.

Other specifics dealing with local reclamation include:

- Reclamation of UDD-4 and UDD-5 will consist of selective recontouring. Some sections of these channels have re-established themselves as a result of encroachment by adjacent vegetation. Recontouring in these areas will be conducted by either small machinery or by hand in order to preserve as much of the existing vegetation as possible.
- Postmining slopes will not exceed the angle of repose unless they meet the minimum long-term static safety factor of 1.3.