

**MINING AND MINERALS BRANCH  
NATURAL RESOURCES - WASO  
Monthly Report - JANUARY 1995**

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**GENERAL**

**Major Changes in Mineral Statistics** - The updated mineral statistics for the National Park Service are now available. The report provides data on active mineral operations, administrative mineral material operations, mining claims, abandoned operations, and disturbed land restoration. Because of major additions to the National Park System in the fall of 1994 and increased efforts by the Branch to update servicewide databases, the statistics have undergone significant changes in the following areas:

*Unpatented Mining Claims* - Three legislative actions have radically affected the number of unpatented mining claims in National Park Service areas. In July 1993, the Bureau of Land Management implemented maintenance fees on unpatented mining claims, which resulted in the abandonment of approximately 52 percent of the claims within Park Service lands. In October 1994, the California Desert Protection Act added approximately 11,700 claims to the System with the expansion of Death Valley and Joshua Tree parks, and the creation of Mojave National Preserve. Lastly, the passage of the Saguaro National Park Establishment Act in November 1994, expanded Saguaro National Monument, adding an unknown number of claims to the System.

*Active Mining Operations* - Preliminary data shows that the expansions under the California Desert Protection Act added 20 mining operations to Death Valley National Park, 4 operations to Joshua Tree National Park, and 56 operations to Mojave National Preserve. The Saguaro expansion added 1 operation to the park. The term, *active*, refers to operations with Bureau of Land Management case files that are not officially closed. This includes operating mines, inactive mines, and closed mines that have not been completely reclaimed. Note that the number or type of nonfederal mining operations in the expanded lands are unknown.

*Abandoned Mineral Lands* - The Branch is transferring all hard copy data on abandoned mineral lands to a servicewide computer data base. As this occurs, the initial inventory is being refined and corrected. To date, data on sites in the Pacific Northwest Region, Rocky Mountain Region, Southeast Region and Western Region has been updated. Note that the Servicewide total of mine openings has been reduced from 10,692 (July 1994) to 7,670. This reduction is a consequence of a redefinition of "mine openings" to "hazardous mine openings." The total of 7,670 reported here refers to mine openings that are hazardous and require mitigation action.

*Disturbed Lands Restoration* - Over the past 3 years, the Branch has developed data on Disturbed Lands Restoration. For the first time, we are reporting data on restoration and mitigation, including mine openings closed, wells plugged, sites restored, and the associated costs. The restoration activity reported is a combination of Branch efforts.

The mineral statistics are available electronically or in hard copy. The files are in Excel 4.0 and WordPerfect 5.1. If you would like an electronic copy, write Norma Clark@nps.gov. If you would like a hard copy, contact Norma Clark at the above mailing address. For further information on the servicewide mineral statistics, contact Vera Smith at (303) 969-2011. (Smith)

**Geoscience Partnership with USGS and States** - A recently signed MOU between the NPS and the U.S. Geological Survey (USGS) commits us to cooperative projects in geologic mapping, resource management, targeted research, and interpretation. To begin implementation of the MOU, newly appointed teams from each NPS region will work with parks during February and March to assess and rank park's geologic project needs, and match the best-qualified USGS scientists with high-priority projects. USGS scientists will submit proposals by early April to compete for FY 96 USGS funds that are being redirected to park projects. Names of regional team members are available from the regional chief scientist, or from Lindsay McClelland at 202-208-4958.

The state geological surveys are also potential partners for geologic projects. Many states have appropriations identified for 50-50 matches with federal funds under the auspices of the National Geologic Mapping Act of 1992. Information about partnerships with state geologists and help in brokering such partnerships is available through an NPS agreement with the Association of American State Geologists. (McClelland)

**Oil and Gas Regulations Lawsuit Sees Change In Lead Counsel; Strategy Meeting Held in Corpus Christi:** The Department of Justice recently changed Defendants' lead counsel and added a U.S. Attorney for the suit brought by private mineral estate owners against the National Park Service. In March of 1994, private owners of the mineral estate underlying Padre Island

National Seashore filed suit against the National Park Service and Padre Island Superintendent alleging, among other things, that the Park Service has no authority to regulate oil and gas operations on federal surface estate. In late January, Branch and park staff met in Corpus Christi to greet the new litigation team, to acquaint them with the case, and to discuss case strategy. After the meeting, it was apparent this new team brings a fresh, aggressive approach to the case. The months of February and March are critical to Defendants case. Branch staff will continue to work closely with DOJ to fully develop and present the NPS's case. (Kassman)

#### **Cost to Fix NPS Abandoned Mineral Lands (AML) May Top \$165**

**Million** - Recent political developments have forced the NPS to look at AML management from the perspective of an "UNFUNDED MANDATE." The program then becomes a **backlog** of long-term and immediate-needs projects with no current source of funding. Based on preliminary information we have today, it will take a long-term program in the 10 to 30-year range to manage AML, and it will cost the Service \$165 million. However, the nature of abandoned mineral sites is such that they create an immediate need for the Service to fix some aspects of the problem now, meaning in the next 10 years starting with 1995, we estimate this cost to be \$43 million. While the Service does not necessarily advocate a "quick fix" to remedy a problem that is well over a 100 years in the making, there are some actions that need to be taken soon, or the situation will worsen, or the opportunity will be lost and in most instances the cost will increase. The immediate needs include: (1) public safety hazards such as deep mine shafts, highwalls and crumbling structures on well used trails; (2) environmental impacts set in motion by some sites that continue to affect more miles of streams and acres of land each year; (3) significant cultural and historic resources that are either rotting away or being stolen by souvenir hunters; and, (4) wildlife habitat that is often being destroyed by a public either unaware or insensitive to the balances of nature. (Higgins, Steensen, Smith)

**Bat Conservation International and the NPS Join Forces** - Bat Conservation International (BCI) and the NPS entered into a cooperative agreement this month. The stated purpose of the agreement is to promote "the conservation, inventory, management planning, scientific study, and protection of bats, bat roosts, and bat habitats located on lands administered by the National Park Service." The key NPS players in developing the agreement were Ron Kerbo, Cave Specialist for the Southwest Regional Office, and Lindsay McClelland, Geologist, who recently joined the Branch as our Washington D.C. contact. Over the past two years, staff from the Mining and Minerals Branch and BCI have worked on several projects together concerning abandoned mine closures. As the first project under our cooperative agreement, branch staff has proposed developing a sign for bat gate mine closures to explain the purpose of gates, i.e., protecting people from typical mine hazards and protecting bats from people. Our

hope is that this sign will cut down on vandalism attempts by increasing visitor awareness and appreciation of bats at sites we have closed using bat gates. Comments on the first draft for the sign have been quite favorable. We will give notice when the signs become available to the field. (Burghardt)

**Bat Conservation International releases impressive publication on Bats and Mines** - Dr. Merlin Tuttle and Dan Taylor of BCI co-authored *Bats and Mines*, BCI Resource Publication No. 3, dated December 1994. This 42-page publication has chapters on the importance of mines for bats, environmental consequences of losing bats, how and when bats use mines, how mine structure, location and human disturbance affect bat use, assessing mines for bat habitat, and protection of bats in mines. Included is a species list of bats that use mines, their colony sizes, geographic range, time of mine use, and T&E status. The report has excellent photographs and illustrations, including detailed bat gate designs, and one photograph of bat gate construction at Oyler Mine in Capitol Reef National Park. When we receive them, we will forward a copy of this publication to each regional mineral coordinator. Additional copies can be obtained by contacting BCI at (512) 327-9721. (Burghardt)

**OSM Reports on Noncoal AML Reclamation Accomplishments** - The Office of Surface Mining Reclamation and Enforcement (OSM) recently published a summary report on the noncoal reclamation accomplishments of six western states and two Indian tribes, Alaska, Colorado, Montana, New Mexico, Utah, Wyoming, Crow and Navajo. The 4-page report was prepared for the annual meeting of the Office of Surface Mining States, Tribes, Western Interstate Energy Board, and the Interstate Mining Compact Commission. The meeting, held in Denver in November, provided information on abandoned noncoal mine reclamation accomplishments in the Western states which have Surface Mining Reclamation and Control Act (SMCRA) Abandoned Mineral Lands (AML) programs. The report shows a total of 165 million dollars was spent on noncoal reclamation in the six states and two tribes. Park Service reclamation figures were included with this brief summary:

The National Park Service has 34 units with abandoned hardrock mines in the six states listed above. There are 722 mine sites with 1,040 openings or hazardous features, such as highwalls. The NPS either on its own or in cooperation with states or other federal agencies, has reclaimed or partially reclaimed 17 mine sites, which include 93 openings. This work was done for an estimated cost of \$188,750.

This report is significant because it is the first time that a federal agency and the state programs designed to deal with the coal mine problems have formally recognized the noncoal problem in an annual report. The report notes that: "The landmark legislation of SMCRA afforded most of these states the first opportunity to begin addressing some of the most severe problems



left from the days of unregulated noncoal mining," and "The noncoal reclamation accomplished thus far is only a scratch on the surface of a huge problem." Copies of the report can be obtained from Bob Higgins. (Higgins)

**Article on polyurethane foam mine closures included in Winter 1995 issue of Park Science** - An article summarizing the branch's experience with polyurethane foam (PUF) for plugging abandoned mine openings is featured in the Winter, 1995 issue of *Park Science*. This is a somewhat condensed version of a longer paper on the subject prepared by John Burghardt. We hope that park managers and staff will see this article and that it will give them some ideas on how they could plug mine openings in their parks using contractors or park maintenance staff. (Burghardt)

#### **PACIFIC NORTHWEST REGION**

**The Price is Right in Lake Chelan** - As part of the "Sand, Gravel, and Rock Plan for Lake Chelan," a separate "Price Determination and Cost Comparison Analysis" was prepared to help management establish a fair market price for the products made available for sale to the residents of Stehekin. The unique legislation creating the park allowed for the NPS to dispose of Federal mineral materials at fair market value. The disposal is for local use so long as such action does not have significant adverse effects on the administration of park resources. The information supplied by park staff allowed the formulation of three options each consisting of seven specific product types. In addition, since the proposed production is so small, three simplified options of three product classes each is also included. The total plan is scheduled for completion in early 1995. (Cloues)

#### **ROCKY MOUNTAIN REGION**

**Changes made to preliminary draft of BLM Resource Management Plan frustrate Branch and Dinosaur National Monument** - Over a year ago, Dinosaur National Monument and Branch reviewed the BLM's preliminary draft of the White River Resource Area RMP to assess potential oil and gas development impacts on the park. The preliminary draft, done with significant input from the park staff, had reflected park concerns about adjacent development. The draft RMP recently became available for review. As anticipated, the BLM Colorado State Office was unhappy with the amount of acreage not available for leasing in the preliminary draft and this most recent iteration reflects that. Much of the acreage south of the park and along Harper's Corner Road that was stipulated as No Surface Occupancy in the preliminary draft is now available for leasing. Similarly, acreage in areas adjacent to the park having little hydrocarbon potential are also available for leasing. Although there are other lease stipulations applied in these areas, there was no way of determining from the document what protection was offered to which acreage tracts. Overall, the new draft appears not to have

incorporated many of the NPS's earlier comments. It will be interesting to see how the BLM, in light of its recent commitment to ecosystem management, responds to park and Branch comments in the final draft. (Heise)

#### **Staff Adds Servicewide Perspective to Integrated Information**

**Workshop** - If NPS restructuring plans continue on course, the Rocky Mountain Regional Office and the Southwest Regional Office will be joining together soon. Staff from these two regions, parks in the regions, Denver Service Center, and the Denver based Washington Resource offices met to discuss collection, use, and facilitating data sharing. The range of data types was broad, including resource, maintenance, and administrative data. Realizing that staff will be cut in central offices, the group focused on what actions, equipment and data will be needed to allow the offices to function more effectively and perhaps exceed the current assistance level to parks. While the focus leaned to park-specific data, Branch staff, along with Air Quality Division Staff, helped to balance the discussions by including a focus on Regional and Servicewide data needs, such as mineral development and air quality issues. The Regions will follow up with written recommendations for their directorate. The proposal is expected to include a description of the program and funding needs. (Geniac)

### **SOUTHEAST REGION**

#### **Oil Discovery Outside Mammoth Cave Spurs Both Park and Industry**

**Interest** - A successful wildcat well drilled outside Mammoth Cave National Park last fall has triggered a mini boom around the park. Vickie Carson, public affairs officer at the park, notified the Branch of the increased industry activity. Joe Meiman, park hydrologist/geologist, provided additional information. Seismic exploration around the park in 1990 initially alerted park staff to renewed industry interest and the possibility of future exploration. Upon completion of the discovery well, the local state oil and gas inspector contacted the park about their concerns. The park has had a good working relationship with the inspector for years, which paid significant dividends in this situation. All the surface and mineral rights outside the park are privately held, meaning any regulations would have to come through the state.

Normally, surface casing in the Mammoth Cave area is run to a depth of 150 feet. However, the limestone horizon in which the cave is located is largely below this depth, exposed to possible invasion by drilling fluids or hydrocarbons from down hole. Joe requested that casing be set all the way through the limestone to a depth of 330 feet. Within two weeks there was a new state requirement that all new wells inside the Mammoth Cave watershed be cased to a depth of 370 feet, 40 feet deeper than the park requested and over twice the previous requirement. To the best of Joe's knowledge, there have been no compliance problems. With the dense vegetation in the area, there are no viewshed

degradation concerns. And as it turns out, the hydrocarbon trend runs AWAY from the park, so the discovery well will in all likelihood be the closest to the park. Park resources appear to be well protected.

Success here can be attributed to three factors. First, the good working relationship between the park and the state inspector. Second, the park's awareness of the implications of operations beyond park boundaries. Finally, Kentucky's awareness of the park's significance and a willingness to do something about it. (Heise)

## **SOUTHWEST REGION**

**Big Bend Reaps Big Benefits From Cooperative Agreements** - Two projects are ongoing at Big Bend, resulting from cooperative agreements arranged by the branch with the U.S. Bureau of Mines and the Railroad Commission of Texas. Last Fall, the Bureau of Mines conducted the first of two field sessions characterizing Mariscal Mercury Mine to detect possible site contamination. The second session is scheduled for February-March. EPA protocols are being used to satisfy CERCLA preliminary assessment and site investigation (PA/SI) requirements. This project is equally funded by the Bureau of Mines and the Southwest Region Hazardous Materials Program.

The Railroad Commission of Texas is financing and contracting the closure of 17 mine openings at Mariscal Mine and 1 mine opening at Rio Grande Village at a cost in excess of \$200,000. The Southwest Region, park, and Branch staff, prepared an Environmental Assessment for the project that involved the collaborative effort of the state of Texas, BCI, U.S. Bureau of Mines, and numerous others who participated in the review and comment process. Site-specific closure designs were engineered by Branch and Railroad Commission staff, including bat gates adapted from the design of Roy Powers, a national expert in this field. Construction of the closures began this month, and should be complete by the end of April, when the mines receive incredible bat activity as a "maternity roost," a place to give birth and raise young. Overall, the project has been an excellent example of partnerships that will help carry the NPS through the cutbacks we are beginning to experience. (Burghardt)

**Lake Meredith Pursues Plans of Operations from Previously Exempt Oil and Gas Operators** - About one half of the 180 oil and gas wells in Lake Meredith National Recreation area are regulated by a National Park Service approved plan of operations. The 36 CFR, Part 9B regulations exempt operations that existed at the time a park was established from plan and performance bonding requirements. However, an operation's exempt status expires whenever a new State or Federal permit is needed. A new operating permit from the State of Texas is needed when a well changes operators. Lake Meredith has been steadily advising new operators of plan requirements and working to bring them into

compliance. During January, the Branch reviewed plans of operations from Holco Oil and Gas for continued operation and reclamation of the three wells and an associated tank battery, and from Mustang Oil & Gas Corporation for the conversion of a shut-in oil producer to a salt water disposal well. Bring previously exempt operations under a plan of operations clearly enhances resource protection. It also improves the NPS's ability to manage the administrative impacts of having oil and gas operations in the park. Lake Meredith is working to bring about 10 other new operators under plans of operations. If January is any indication, 1995 will be a busy and very productive year for Lake Meredith. (O'Dell)

**Big Thicket Operator's Well Abandonment Proposal Is Not Up To Snuff** - The Branch evaluated a proposed plan of operations from Murphy Oil to plug and abandon a gas well in the Neches Bottom / Jack Gore Baygall Unit of the Big Thicket National Preserve. We found the plan deficient from both a regulatory and technical aspect. Our comments focused on the proposed well plugging plan. The goals in plugging a well consist of effectively isolating 1) the productive intervals, 2) underground sources of drinking water, and 3) the bottom of the surface casing. A cement plug is then placed to seal the well at the surface. The Branch recommends that plugging procedures meet the minimum standards of the Department of Interior's Onshore Oil and Gas Order Number 2, Section III. G., Drilling Abandonment. As written, Murphy's procedure would not accomplish any of the above goals to Federal or the Railroad Commission Texas standards. Our comments outlined deficiencies and provided alternatives that would accomplish proper plugging of the well. (O'Dell)

#### WESTERN REGION

**California Desert Parks: Preliminary Data on Unpatented Mining Claims in the NPS Additions Has Been Obtained** - Branch and BLM staff worked together to generate a list of all mining claims potentially within the lands added to the system by the California Desert Protection Act of 1994. Staff prepared a list of all sections in the NPS additions, then queried BLM's Automated Land and Mineral Record System for all current claims on those lands. The data collected includes all claims within 1 mile of the parks' new boundaries and all claims that were "cherry-stemmed" out of the additions, since we were unable to filter these out querying BLM's database by section. Taking all of this into consideration, the following table summarizes the current number of unpatented mining claims potentially within the California desert parks:

#### UNPATENTED CLAIMS TALLY

PARK	PRE-CDPA	ADDITIONS	TOTAL
Mojave	0	9206	9206
Death Valley	25	2169	2194



Joshua Tree	0	431	431
Total claims added			11,806

These are **maximum numbers** that will undoubtedly be reduced as the analysis is refined.

The immediate use for the information was to generate a mailing list of claimants so we can begin corresponding with them. More claim-specific information was also obtained, and will be incorporated into the NPS mining claims database. (Burghardt, Wood, Kopilow)

### PROFESSIONAL DEVELOPMENT

**Staff Attends Forum on Runoff and Sediment Yield Modeling of Mined Lands** - This first annual meeting, jointly sponsored by the Montana Department of State Lands and the Office of Surface Mining, focused on sediment yield and runoff modeling in the semi-arid west. A hundred and thirty people attended the interactive forum, which provided an excellent opportunity to hear broad ranging discussions on the common modeling methods, applications, and limitations. Much of this will be useful to the NPS. For example, the NPS will soon need to comply with Clean Water Act provisions requiring Federal land management agencies to obtain NPDES permits for abandoned mine sites. Besides chemical problems, sediment yield will be a major issue. Understanding the limitations to modeling and measurement of sediment yield will enable us to use resources efficiently in addressing the NPDES compliance. Another example, where information obtained during the forum will be useful, is setting reclamation criteria and evaluating performance bonds for active operations (e.g., in the new California Desert expansion). Particularly, we may wish to ensure that reclamation criteria include measurable sediment yield standards. (Steensen)

**University of Colorado Law Student Selected For Spring Externship Program** - Adam Heller, a second year law student at the University of Colorado School of Law, was selected for the branch's Spring externship program. In the Fall of 1993, the branch established a "work for credit" program with the CU law school in order to give qualified law students front line exposure to NPS mining and minerals issues. The branch extern is assigned a variety of tasks including: research of federal, state, and local statutes and regulations, and federal and state case law. A law student receives 1 credit of course work for every 50 hours of research they provide. Adam will begin his assignment in January and remain with the branch until the end of April, at which time he must focus on preparation for final exams. We welcome Adam and hope he enjoys his stay. An externship program is easy to establish with any local University and is an effective way to supplement staffing for any type of

research project. For more information contact Ed Kassman at  
(303) 969-2146.