

**ALASKA STATE LEGISLATURE
JOINT MEETING
HOUSE RESOURCES STANDING COMMITTEE
SENATE RESOURCES STANDING COMMITTEE**

February 6, 2001

12:15 p.m.

HOUSE RESOURCES MEMBERS PRESENT

Representative Drew Scalzi, Co-Chair
Representative Hugh Fate, Vice Chair
Representative Joe Green
Representative Mike Chenault
Representative Lesil McGuire
Representative Gary Stevens
Representative Mary Kapsner
Representative Beth Kerttula

HOUSE RESOURCES MEMBERS ABSENT

Representative Beverly Masek, Co-Chair

SENATE RESOURCES MEMBERS PRESENT

Senator John Torgerson, Chair
Senator Robin Taylor
Senator Kim Elton
Senator Georgianna Lincoln

SENATE RESOURCES MEMBERS ABSENT

Senator Drue Pearce, Vice Chair
Senator Rick Halford
Senator Pete Kelly

OTHER LEGISLATORS PRESENT

Representative Ken Lancaster

Senator Gary Wilken
Senator Loren Leman
Senator Donny Olsen

COMMITTEE CALENDAR

MINING INDUSTRY BRIEFING

PREVIOUS ACTION

No previous action to record

WITNESS REGISTER

STEVEN BORELL, Executive Director
Alaska Miners Association, Inc.
3305 Arctic Number 202
Anchorage, Alaska 99503
POSITION STATEMENT: Gave an overview on Alaska minerals.

RON PLANTZ, Human Resources and Safety Manager
Kennecott Greens Creek Mining Company
P.O. Box 32199
Juneau, Alaska 99803
POSITION STATEMENT: Gave an overview of the production at Greens Creek.

DAN GRAHAM
Usibelli Coal Mine, Inc.
P.O. Box 1000
Healy, Alaska 99743
POSITION STATEMENT: Gave an overview on the financial and environmental impact of the Usibelli Coal Mine on Alaska.

TOM IRWIN, General Manager
Fort Knox Mine
Fairbanks Gold Mining Company
Number 1 Fort Knox Road
P.O. Box 73726
Fairbanks, Alaska 99707
POSITION STATEMENT: Gave a PowerPoint presentation regarding the Fort Knox Mine.

KARL HANNEMAN, Alaska Regional Manager
Teck-Pogo, Inc.
(No address provided)
POSITION STATEMENT: Gave a PowerPoint presentation regarding the Pogo project update.

CHARLOTTE MacCAY, Senior Administrator of Environmental Affairs
Cominco Alaska, Inc./Red Dog Mine
P.O. Box 1230
Kotzebue, Alaska 99752

POSITION STATEMENT: Gave an overview regarding the Red Dog Mine.

ACTION NARRATIVE

TAPE 01-8, SIDE A [House Resources tape]
Number 0001

CHAIR JOHN TORGERSON of the Senate Resources Standing Committee called the joint meeting of the House Resources Standing Committee and the Senate Resources Standing Committee to order at 12:15 p.m. Members present at the call to order were Representatives Scalzi, Fate, Green, and Chenault, and Senator Torgerson. Representatives Stevens, Kapsner, Kerttula, and McGuire, and Senators Taylor, Elton, and Lincoln arrived as the meeting was in progress.

Number 0120

STEVEN BORELL, Executive Director, Alaska Miners Association, Inc., reviewed the format of the briefing and explained that the order of the presenters was based on how close to completion of their projects they are. He gave a basic industry overview on Alaskan minerals [handout available in committee packet], stating that prices for gold, silver, and most base metals have remained depressed for the last several years. Worldwide exploration has [decreased by 60 percent], while exploration in Alaska has only decreased by 20 percent.

MR. BORELL noted that the two areas in which the mineral industry holds interest in exploration are Nevada and Alaska. He pointed out that many of the placer miners are barely able to pay for fuel and wages, and some have "idled" right now, maintaining their permits, until such time as the price goes back up and they can go back to work. Mr. Borell stated that Vancouver was the "real measure of exploration, almost worldwide," adding that 77 percent of the exploration funds spent in Alaska last year came from Canada. He noted that a couple of "targets" had changed, with real interest developing in platinum group elements and base metals, both of which occur in Alaska. He predicted there would be some "new players" in the state this year.

MR. BORELL mentioned new or renewed projects that would not be discussed at length during this overview. First, Donlin Creek, on Calista [Corporation] Native land, has "defined" 11.5 million ounces of gold. Mr. Borell defined Donlin Creek as a

significant resource, but not a mine, noting that it had infrastructure problems and lack of power in the area and was not economical. Second, Illinois Creek, a fully air-supported operation located approximately 50 miles south-southwest of Galena, was in bankruptcy, but is no longer; the goal of the people there is to mine enough gold to pay for the cost of bringing the mine to closure. He mentioned that Illinois Creek was working in cooperation with the Department of Natural Resources (DNR).

MR. BORELL noted two highlights from last year's exploration. First, on Doyon, Ltd. lands at Northway, North Star Exploration has a lease with Doyon, and has found "some extremely good intersections" that will lead to additional work in the area this summer. Mr. Borell stated that a request had been made to the Delta Mine training center to get some more drill-helper training for the people at Northway. Second, 30 miles southwest of Tok and 10 miles off the Tok cutoff is a project called "Whitegold," which is a discovery on state lands.

MR. BORELL pointed out a map, supplied upon his request by DNR and located on the last page of his handout, that shows the statewide geophysical/geological mineral inventory, with "areas that [DNR] has proposed for the future." Mr. Borell expressed appreciation to the legislature for allocating the funds [that make it possible to provide the map]. [In reference to the map], Mr. Borell mentioned the interest level in Alaska [in mining] and said, "I describe it like 'chumming' for fish, but we're 'chumming' for mining companies, and every year they're sitting there waiting, to watch for this new data and to see what it looks like. And of course the data goes on the shelf and is available for many years to come."

MR. BORELL asked the members to pay attention to the upcoming budget discussions with DNR, reminding them to ask [DNR] about the promises it made last year regarding claim processing and the backlog of work. He stated his opinion that [DNR] has done exactly what it promised to do.

Number 0153

RON PLANTZ, Human Resources and Safety Manager, Kennecott/Greens Creek Mining Company, described Greens Creek as an underground poly-metallic and surface concentrator, operating on only one-half square mile of the 1,500 square-mile Admiralty Island, south of Juneau. He showed the members pictures of the facility. First was an aerial view of the "920" mine site, so

named for being located 920 feet above sea level, with the entry portal underground and administration buildings visible on the top left corner of the page. Also on the page were depicted the ship-loading facility and the "dry-stack" tailings storage facility. Mr. Borell stated that approximately half of the [Greens Creek] tailing materials go back underground to fill the holes that were dug, and the other half will be used to create a hill that will eventually be capped and reclaimed.

MR. PLANTZ stated that [Greens Creek] had a record year and achieved its budgeted production midway through December, and had a record backfill year. He said [Greens Creek] completed a \$6 million cleaner cell project, which allowed for improved metallurgical recovery, primarily from the zinc circuit, and added to the profitability of the operation; it also completed a \$2.6 million tailings impoundment extension, extending out to the boundaries of the leased land, providing a safe place to put tailings for five years. The mine also completed a public opinion survey through the McDowell Group, which turned out favorably.

MR. PLANTZ stated that out of the 270 employees at Greens Creek, 85 percent are Alaskan-hire, with 75 percent of the total workforce coming from the Juneau area and 10 percent coming from the rest of Southeast Alaska and the Wasilla-Palmer area. He stated that Greens Creek has a \$6 million payroll, spends approximately \$6 million on local contractors, gave away \$15,000 in philanthropic contributions, and spends approximately \$80,000 a year in community-related activities, including "Gold Rush Days."

MR. PLANTZ named the mill expansion of the cleaner circuit as the major project for 2000, when Greens Creek also added floatation cells and provided an opportunity for several local contractors to work on the project. He told the members about a plan for this coming year to add a 5-megawatt generator to the power house at Greens Creek, which will provide a much cleaner engine, as well as additional power and productivity for the mill.

MR. PLANTZ also talked about an upcoming "payspill" (ph) project. Currently, the mine hauls the backfill material in trucks to fill up the holes that have been dug underground. Mr. Plantz explained that the mine would be building a plant that can turn the backfill material into a toothpaste-like material, which then could be pumped into those holes and hardened in place. Another project, called "Tails II permitting," he

described as an expansion of Greens Creek's tailing facility "to encompass through the known reserves - known life - of the mine." He added, "And we're currently reclaiming certain areas - old waste piles, things like that - as we go, with different types of capping technology and doing some experimentation there." Mr. Plantz stated that the mining operation was a "sustaining" one; in 2000 Greens Creek had a \$.5 million program for underground exploration, and replaced in reserves as much as it took out.

MR. PLANTZ highlighted segments of a survey done by the McDowell Group [available in the committee packet], which showed the opinion of Juneau residents regarding Greens Creek. The results showed that 82 percent of Juneau residents were aware of the existence of Greens Creek, 42 percent through the newspaper, followed by "friends and family." In the blind survey, Mr. Plantz pointed out that Greens Creek and Princess Cruises were listed as the two major contributors to charity in the Juneau area. He read from the survey that over two thirds of Juneau residents felt that the mine was doing a "fairly good job" of protecting the environment.

Number 0248

DAN GRAHAM, Usibelli Coal Mine, Inc., pointed to a handout summarizing the financial and environmental impacts of the Usibelli Coal Mine on Alaska [available in the committee packet]. He described Usibelli Coal Mine as a family-owned company that has been in business since 1943; it currently produces 1.5 million tons of coal a year for sale, with a goal of 2 million tons in the next year to year and a half. Mr. Graham emphasized that the energy market is presently very competitive. He stated that to combat the decreasing revenues in coal over the last few years, Usibelli has invested over \$8 million in new equipment, larger trucks, and new loaders and excavators in order to improve productivity and efficiency, thereby lowering costs.

MR. GRAHAM gave a PowerPoint presentation detailing Usibelli Coal Mine's sites, productivity, reclamation practices, and goals for the future. He showed an image of the Poker Flats mine, the main site in production since 1977, showing areas that have been reclaimed. He stated that Poker Flats has produced 27 million tons of coal to date, which carries a value of nearly \$.5 billion and has "about 18 months remaining." He mentioned areas "six," "four," and "three" that had been mined.

MR. GRAHAM defined reclamation, as it relates to coal mining, as a "contemporaneous" activity: the company reclaims as it mines. He described the process by which Usibelli does aerial reseeding and fertilizing on reclaimed areas, planting approximately 25,000 seedlings annually, as well as building drainage channels that minimize erosion. Over the next several years, Mr. Graham said Usibelli will reclaim the total 900 acres from the mine site at a total cost of over \$9 million. He added that his personal goal is to see the job done well enough to qualify in a few years' time as a candidate for the governor's annual reclamation award.

Number 0293

MR. GRAHAM showed an image of the next mine, called "Two Bull Ridge." He explained that the process of starting a new mine is a slow one: Between 1974 and 1987, Usibelli drove over 300 holes on the mine site and entered them into the database; from 1987 to 1994, Usibelli put its efforts into modeling, mine planning, and design work; in 1994, the group moved into the permitting phase; by 1996, the permit application was completed and submitted to the state; and in late 1997, it was approved. Mr. Graham made note that having a "stable permit atmosphere" really helped the company out, because its people knew what was expected. The next step, he said, was to spend two years developing a road in the area. In 2000, Mr. Graham told the members, [Usibelli] started developing the "box cut" and would continue "stripping" there for the next 18 months in anticipation of a "drag line" showing up. He mentioned 2,500 acres and a total permit area with up to 40 million tons of coal, and an additional 5 millions of "waste coal." He defined waste coal as that which does not meet [Usibelli's] existing contract specification, but which can be burned at a new project called the Healy Clean Coal Project.

Number 0317

MR. GRAHAM stated that the Healy Clean Coal Project ran for just over 12 months, including a 90-day test burn, which surpassed the targeted goal of 85 percent availability by an extra 10 percent, with emissions much lower than what was allowed under the permit. He said that although the combustion and cleaning technologies worked well, the question at hand was the financial viability of running the plant. He stated an understanding that AIDEA (Alaska Industrial Development and Export Authority) and Golden Valley [Electric Association] were close to finishing a study on how to make the plant acceptable to both parties. Mr.

Graham said [Usibelli] was ready to deliver coal to the Healy plant at costs on a BTU basis that are about one-tenth of what the recent gas prices have been in the Lower 48.

MR. GRAHAM highlighted another permit called the Rosalie Mine, a "re-mining" of an old mine that's the old town site of Usibelli, off the Healy Valley. He said it had been mined in the '50s and '60s and was abandoned in the '70s. Mr. Graham told the members that after the high-grade coal which had been left in the area was mined, the plan was to "reclaim" the town site and work with DNR's Division of Mining, Land and Water and with the Alaska Department of Fish & Game (ADF&G) to create a lake that will be used for recreation and fishing.

MR. GRAHAM mentioned another mine site called Wishbone Hill, located near Palmer and Sutton. He described it as a "high-cost producer" and said testing and "permit activities" were being done to try to reduce the cost of mining. In conclusion, Mr. Graham pointed to four new lease blocks called the Jumbo Dome leases, which he predicted would cover energy needs for the next ten years or more.

Number 0354

TOM IRWIN, General Manager, Fort Knox Mine, gave a PowerPoint presentation illustrating many points from his handout [included in the committee packet]. He stated that the mine had 91 percent local hire. He mentioned making it through the year with zero loss and presently having over 900,000 man-hours through January. Mr. Irwin stated there have been no notices of alleged violation on the property since the mine began. He mentioned a record run-time of 95.1 percent and nearly 363,000 ounces [of gold] at \$203 per ounce, and emphasized the need to keep the separation between the price of gold and the operation costs.

MR. IRWIN showed an image of the new \$3.4 million hydraulic excavator and two out of nine of the 150-ton trucks, and he stated, "We're still in manual bypass loading." He also showed images of award-winning reclaimed wetlands that his company had reseeded, and thanked ADF&G for its support in that program. The members were shown other pictures of reclaimed areas as well: a 3,500-acre water reservoir downstream from a tailings facility; several thousand "catchable" [Arctic] grayling in the reservoir, which were doing well, according to studies by ADF&G; and several thousand "catchable" burbot. He said the estimate

this year for Arctic grayling in the wetlands is approximately one million fry.

MR. IRWIN stated that when Fort Knox first began operation, the price of gold was in the \$371-an-ounce range and has dropped considerably; 32 percent of the value was "the bottom point." He pointed out that nothing could be done about the price of gold, so the company at Fort Knox was focused on staying competitive and not counting on the price going up. He said, "We're here for the sustainability and the long haul." He mentioned the relation between the changing cost per ounce of gold and the company's operating costs and stated that what the company is doing about the situation is a "project like True North." Mr. Irwin explained that by mixing the lower-grade ore with the higher-grade ore from True North, it raises the grade to average. He mentioned remaining under \$200 per ounce and getting 10,000 tons a day from True North and 30,000 tons a day from Fort Knox.

MR. IRWIN stated that his predecessors were considering mining and milling at True North. Current management considered that option, but decided there would be much less impact on the environment if True North was used for mining only and the Fort Knox facilities were used for the other processes in the operation. He showed locations such as Cleary Summit and the Steese Highway and explained that an extra million dollars was spent to construct about 9.8 miles of road, including a bridge, in order to create the least amount of impact to residents using the Steese Highway.

MR. IRWIN said [the Fairbanks Gold Mining Company] would be mining the Hindenburg and East pits, spending another \$2 million this year "for sustainability."

Number 0444

SENATOR LINCOLN asked how many acres comprise [the Hindenburg and East pits] combined and how many acres are on "the other sites."

MR. IRWIN estimated 1,500 to 2,000 acres and 7,700 acres, respectively. He talked about routes to True North, and complimented the people of the Mental Health Land Trust Office for their involvement in planning the road locations in that area. In closure, Mr. Irwin showed images of what the valley in Fort Knox looked like in 1992 and present-day. In conclusion,

he mentioned the operation of True North and the intent to continue to maintain the environment.

Number 0473

KARL HANNEMAN, Alaska Regional Manager, Teck-Pogo, Inc., gave a PowerPoint presentation regarding the Pogo project update [handout available in committee packet]. He told the members that Pogo is located approximately 35 miles northeast of Delta Junction in Interior Alaska. He listed the partners involved: Sumitomo, a major, 700-year-old, worldwide mining company; and Teck Corporation, a Vancouver-based company with 11 operations worldwide. Mr. Hanneman outlined the various phases of the operation that were completed: surface exploration, underground exploration, and an environmental assessment and feasibility study. He explained that the company was currently in the permitting phase. Still ahead would be mine construction, operation of the mine, and then reclamation and closure.

MR. HANNEMAN stated that Pogo would be an underground gold mine; he showed a picture depicting 12- to 15-foot-thick gold veins that were identified by surface drilling. He pointed to a 3-D model of the two gold veins, which together have identified about 5.6 million ounces of gold. He explained that once the resource was identified, the company drove a tunnel underground to find out engineering information such as rock strength and water inflows.

MR. HANNEMAN showed a plan view of the tunnel, which was driven beginning March 1999, about one mile in length. He said a road had to be constructed in order to access the work on the tunnel, a 50-man camp was made, and specialty mining equipment work was done under Pogo Ridge.

MR. HANNEMAN detailed the concept for building a mine at Pogo: First, they would build a shaft, so that the mill facility would be established on top of the ridge, with a "virtual shaft" going down to access the ore. Next, they would raise the ore up to that mill and crush and grind it to recover the gold. Mr. Hanneman mentioned replacing (indisc.) back underground, similar to Greens Creek. To support the project, Mr. Hanneman said Teck-Pogo is proposing an all-season access road and a power line, which will enable the workers to haul in the 35,000 tons of cement, fuel, and supplies necessary to support the mine. He estimated the annual gold production would be about 15 tons a year.

Number 0529

SENATOR WILKEN asked how much power was used.

MR. HANNEMAN answered approximately 10 million watts. He showed a computer rendering of how the facility would look, including the mill and camp on top of Pogo Ridge, the access road, and the storage area for surplus tailings. Mr. Hanneman stated that although the facility was 50 miles from the nearest access road, it would be better situated there than in other parts of the state. He discussed a proposed all-season route along what was called the Shaw Creek hillside route.

MR. HANNEMAN addressed reclamation issues by stating that Teck-Pogo's mine planning was heavily geared towards making sure that the mine would be closed properly at conclusion. He told the members that the total projected capital cost for the Pogo project would be \$200-250 million, with an annual production cost of \$125 million, \$540 [million] for two years to construct the mine, and \$300 [million] to operate it. He said the mine is predicted to run for about 12 years.

MR. HANNEMAN said Teck-Pogo is currently undergoing the permitting process; the EPA [Environmental Protection Agency] had begun the EIS [Environmental Impact Statement] as of August 2000, with the cooperation of the U.S. Army Corps of Engineers and the State of Alaska. He stated that with an efficient permitting process, the EIS process could be completed by next winter. He said Teck-Pogo is finalizing its feasibility studies. In regard to the draft [of the EIS], Mr. Hanneman said public comment was expected.

Number 0557

CHARLOTTE MacCAY, Senior Administrator of Environmental Affairs for Cominco Alaska Inc./Red Dog Mine, gave an overview of the handout [available in the committee packet]. She stated that Red Dog is the world's largest zinc mine; the next largest deposit, in Australia, is half as large. She said the main pit holds 42 million tons, while the one adjacent to it holds 56 million tons. Additionally, resources are still being defined that add up to another 50 million tons. Ms. MacCay described Red Dog as a district, rather than a mine, because the company is investing \$3.5 million into mineral exploration this summer [2001] at three new sites. She added that, at this point, the sites have great potential, but they present metallurgical or

infrastructure obstacles to be overcome in order to develop development plans.

MS. MacCAY explained that people don't develop mines in such remote situations without infrastructure, "unless it's spectacular." She said a partnership with "NANA" Regional Corporation, Inc. and support from AIDEA in funding and infrastructure have made the Red Dog Mine possible. Ms. MacCay cited the reasons that NANA selected Red Dog as its partner: Red Dog's expertise in mining and its commitment to the community. She stated that Red Dog has a shareholder-hire preference, presently at 60 percent, and is working on raising that percentage by offering scholarship programs, location training, on-site apprenticeship, and job shadowing.

MS. MacCAY stated that Red Dog Mine is a major economic influence on the region. The average wage is approximately \$71,000 a year. She pointed out that before Red Dog was there, the average borough wage was far below the state average of about \$33,000.

MS. MacCAY announced that Red Dog Mine is "exploring on the prospect and the potential to replace our 18 million gallons of diesel consumption with natural gas." She explained that there are shale beds within ten miles of the mine, which she stated the people of Red Dog believe could probably be developed to provide natural gas, once a permit has been obtained to pursue that activity. She mentioned the possibility of supplying gas to villages, whose power bills rival those of California residents.

TAPE 01-8, SIDE B

MS. MacCAY stated that another potential way to help the local villages with fuel would be to utilize the port site as a distribution center for fuel to the region. She explained that "the two boroughs" combined would have much greater negotiating power to buy fuel in bulk. She said there are 15 million gallons of fuel storage at "that port," and "if we convert to gas, we won't need most of that - it would be available for the region." The fuel could be barged into Red Dog, Ms. MacCay said; however, an airstrip would be needed at that port facility in order to distribute [the fuel] to the region. She mentioned Department of Transportation and Public Facilities monies available to fund a feasibility study for that. She stated the intent to move the funds and get them allocated to AIDEA for a feasibility study in time for the next allocation of federal

monies in July 2001. She listed the benefits of having the airstrip at the port site: getting fuel into the villages at a much lower cost, freeing space once used to store fuel, bringing in a spill contractor much faster if there is a spill, and increasing accessibility for Red Dog when its own airstrip is weathered in, among others.

MS. MacCAY stated that the economic impacts of Red Dog have been numerous; it spent over \$150 million on Alaskan vendors and services in 2000. She said direct wages to Cominco [Alaska] employees were over \$14 million, and she mentioned transport, catering, and housekeeping services. Ms. MacCay told the members [Cominco Alaska] pays the following: over \$2.4 million in the mining license tax to the state; over \$6 million to NANA in leases and royalties; over \$10 million in payments to AIDEA, which go to the state general fund; and \$4 million in lieu of taxes to the [Northwest Arctic] Borough, which supports the school system in that area. She said that Red Dog lost \$150 million in operating costs, but has begun to make a profit in the last few years; while the profit for 2000 was \$75 million, the remaining debt is \$968 million.

MS. MacCAY stated that the people at Red Dog like to strive to be an environmental model. Streams in the area that held no fish before the existence of the mine now have fish because of the mine's process of collecting the naturally mineralized water, using it, and treating it to much cleaner standards. She pointed out the following ways that the people at [Cominco Alaska] are working toward reasonable regulations: They are supporting the motorized transport oil spill regulations, which they believe to be both feasible and effective; they are working with the Department of Environmental Conservation (DEC), reviewing some proposed ambient air boundaries that are of concern to the company; they are presently in the Ninth Circuit Court of Appeals, involved in a joint suit by DEC and Cominco [Alaska] against the EPA (Environmental Protection Agency) regarding the state's authority to make decisions in air permitting which would be recognized by EPA without its interference. She added that oral arguments would be next week and that a decision should be out in a few months.

Number 0539

SENATOR TAYLOR asked Mr. Plantz how many megawatts of electricity were being used at Greens Creek. He stated that the huge need for energy should be considered when studying the mineral industry.

MR. PLANTZ answered, 6.8 on the island.

SENATOR TAYLOR asked what the economic impact of the legislation passed was on Mr. Plantz's facility, stating that he could not recall whether it was 12 full hours, or just 10.

MR. PLANTZ replied it was the legislation from 1996 that allowed 10 hours at the base, which resulted in approximately an 11-to-12-percent improvement in efficiency.

SENATOR TAYLOR stated that it was a significant controversy in the legislature at the time, and "it's policy calls like that, that make some of these projects feasible, where they'll actually operate and continue to work." He explained that he had brought the subject up not just because of the California energy crisis, but because [Alaska] has significant reserves of power in the Rail Belt that will reach to Fairbanks and other areas. He said one of the reasons that the mine at Fort Knox is operating today is because of some of the power generation that has been done.

Number 0520

SENATOR LEMAN stated his recollection that the Rosalie Mine had been abandoned and asked Mr. Graham if that could be a prospect for using a Senate bill passed several years ago.

MR. GRAHAM answered that [Usibelli] has an application ready to submit for that, and DNR would "determine that." He said [Usibelli] has submitted applications on other properties that weren't accepted "because they were already near the permitting phase."

Number 0513

SENATOR LINCOLN asked Mr. Hanneman to comment on the use of technology in relation to environmental concerns, both now and in the future.

MR. HANNEMAN responded that with respect to planning a mine, all the geological information is put on a computer database as a 3-D model, so that the model can be built "in real space." He said technology is used in training at the universities; he commented on the support from the legislators in that regard. Mr. Hanneman told the members about the use of remote-control vehicles run from the surface during mining operations,

concluding that what a mine looks like and how it is operated is changing rapidly.

Number 0486

REPRESENTATIVE FATE asked Mr. Borell if growth revenue reports on the entire mineral industry, exclusive of the oil and gas industry, were available.

MR. BORELL answered that the numbers on an annual report produced by the State of Alaska last year combined the totals of exploration, development, and production; he recalled that last year was the fifth consecutive year that the total equaled over \$1 billion. He added that the mines represented [at the present hearing] made the largest contribution to [that total].

Number 0478

REPRESENTATIVE KERTTULA asked the presenters if the state's technology was keeping pace with that of the industry.

MR. BORELL responded that DNR has made incredible strides in automating the paperwork process and that both DNR and DEC have always been willing to get a third party to provide expertise in any area where it's lacking.

REPRESENTATIVE KERTTULA inquired who would pay for that expertise.

Number 0460

MR. IRWIN stated that True North just completed its permitting process, and the individuals at DNR very capably kept up with "masses of data." He encouraged [the legislators] to continue their support of DNR in its efforts to keep up with the technology, adding that the people in DNR, who spend many nights and weekends to keep up with the work, deserve that support.

Number 0452

REPRESENTATIVE GREEN asked a question regarding mine sites finding sources of energy and sharing those [sources] with nearby communities.

MS. MacCAY replied that it would take a greater demand than two villages combined would have, to actually do production at a village. She mentioned a hope of developing more shale gas. In

response to a follow-up question by Representative Green, she said that there was no negative [response] concerning his suggestion; in fact, her company is very excited about the idea and would like to provide a model that others can emulate.

ADJOURNMENT

There being no further business before the committees, the joint meeting of the House Resources Standing Committee and the Senate Resources Standing Committee was adjourned at 1:17 p.m.