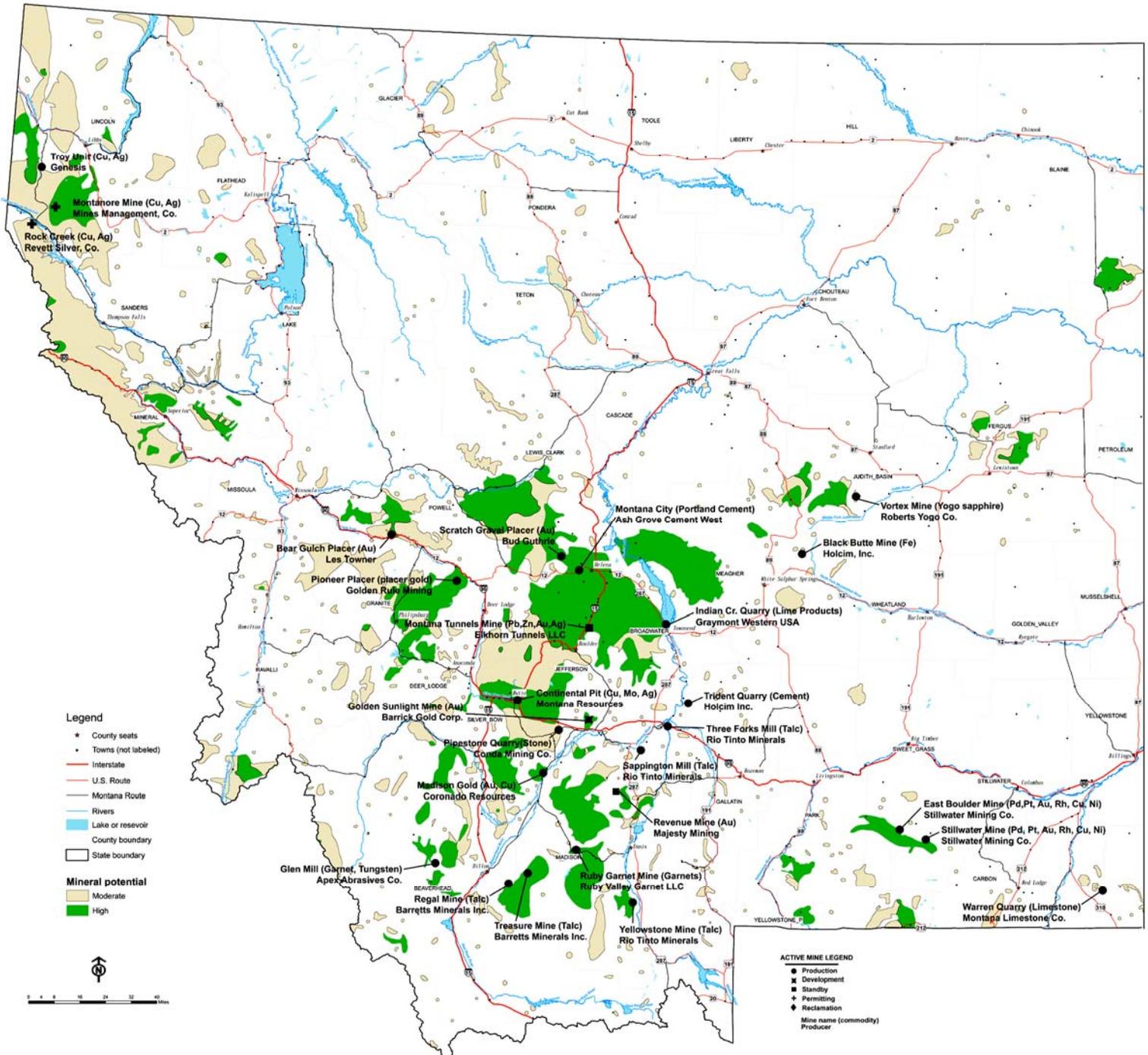


Mining and Exploration in Montana, 2010

Robin McCulloch, Mining Engineer

This past year in Montana saw some extremes, including high commodity prices and a continuing scarcity of venture capital and exploration companies. For the most part, the industrial mineral companies experienced steady growth, accompanied by the hiring of a few replacement employees from the business decline in 2008–2009. The crash of the housing market had severe implications for the Portland cement industry; capital investments in infrastructure have been delayed and reduced. Although the industrial use of



cement has recovered steadily, the housing industry is not expected to show any significant change until 2013 or later. This has resulted in an oversupply and has caused temporary closures at local plants.

The metals portion of the mining industry has enjoyed high demand and wonderful prices. However, as costs have risen steadily for energy, steel, and equipment, company profits have not been as high as one would expect.

Mines

Troy Mine (Cu, Ag)

Genesis Inc., a subsidiary of Revette Silver, Inc., maintained steady production at the Troy mine. Labor has been steady and mine ore grade and commodity prices have increased. The company has continued to expand the reserve base with discoveries in underlying quartzite beds. A decline has been completed to the "C" bed, where substantial reserves have been delineated.

The company has reduced production costs and will continue to expand their reserve base as they wait for the permitting of the Rock Creek mine to be completed.

Rock Creek Mine (Cu, Ag)

Progress with the Rock Creek mine (Revette Resources, Inc.) was delayed yet again as Judge Malloy retracted earlier permits based on discrepancies in prior records of decision. Earlier critical analysis was deemed adequate. The issues to be corrected are minor and will be resolved with a Supplementary EIS expected to be completed in the current year (2011). A final determination for production is likely to occur in the near future.

Montanore Mine (Cu, Ag)

Mines Management, Inc. has continued to work through the re-permitting of the Montanore mine. A grizzly bear study has shown that the ecosystem around the mine site contains more bears than originally thought and that they may be at or near the limits of the system. The permitting agencies have also chosen a preferred alternative for the power corridor.

Although the Montana DEQ and the U.S. Forest Service appear to be working together through this process in a relatively efficient manner, the speed of completion has been slowed by an apparent lack of technical expertise within the Corps of Engineers and the U.S. Environmental Protection Agency. At one point, the agencies requested that a section on acid rock drainage be added to the EIS. However, the deposit characteristics preempt the possibility of acid rock generation.

Lyons Gulch

Near Trout Creek on the Vermillion River, John Cochran and Jim Williams mined placers near the mouth of Lyons Gulch. John's operation was nearly completed at the end of the summer. The pay gravel consisted of a relatively tabular zone, 4-5 ft thick, lying above barren gravels and overlain by 1-2 ft of silty- sand and organic silt. Numerous 2-4 ft diameter boulders of the Pritchard Formation are found within the pay gravels. The pay zone has distinct limits and appears to be nearly exhausted. Limited potential exists on the south side of the river and the next bench downstream below the falls.

Existing workings indicate the pay zone has its origins in the Lyons Gulch drainage. An adit, located on the Vermillion River road, contains a gold-bearing quartz vein approximately 20 inches wide at the portal and pinching to less than 6 inches at the face. There is limited alteration of the wall rock and the vein appears to be formed along a bedding placer within the Pritchard shale. This lode property is not likely the source of the placer deposit.

Jim Williams has mined for a number of decades on the Vermillion River placer. During the year he identified limonitic gravels in the Glacial Lake Missoula remnant fill of the drainage. Gold values appear to be quite promising. Further exploration is planned for the coming year.

Bearmouth Placer

Near Drummond, Les Towner completed testing of the placer deposit in Bear Gulch and started mining. Excavation started immediately upstream from the end of the bucket – line dredge piles. Initial work outlined six feet of pay gravel covered by eight feet of overburden that was, in turn, covered by 35-40 ft of topsoil. The gold is bright, flat and disc-like in a debris-flow deposit. Mining has exposed numerous mined out stopes where early miners mined and hoisted gravel to the surface for processing. Mining is scheduled to continue in the spring.

Deep Creek Placer

Closer to the Garnet ghost town, Randy Rice and Ralph Smith continued mining the upper Deep Creek gold placer. The majority of the existing alluvial placer has been exhausted between the Forest Service roads. Operations were focused on mining the remaining alluvial values as well as a residual gold deposit in hydrothermally-altered Jefferson Formation. Much of the alteration has reduced the limestone/dolomite to calcareous sand with remnant bedding features. Limonite pods and zones are likely the source of the gold.

Golden Rule Mining Company

Near Garrison, Golden Rule Mining Company mined placer remnants at Pioneer in the Gold Creek drainage. Utilizing two trommels, the company processed the remaining resources under dragline spoil piles. Besides gold, they were producing an impressive number of stulls from the drift mining from earlier years. As they rapidly expanded to their 5-acre limit, the company has applied for an operating permit for the future. It was rumored that they were operating through the subzero weather of the winter of 2010-2011.

Montana Resources

In Butte, Montana Resources maintained steady production while enjoying elevated copper and silver prices. Molybdenum prices fluctuated but were still very good. Although the company did not purchase any production equipment, they have continued with their three-year program of upgrading the control system within the mill.

They initiated a reserve expansion drilling program on the pit limits and expect to continue over the next three years. Initial results have been promising. Operations are steady with low employment turn over.

Coronado Resources

West of Silver Star, Coronado Resources maintained production for many months of high-grade copper ore and gold ore that could be direct shipped to a smelter. In the fall, the copper grade declined and operations closed until milling problems with pyrite suppression could be worked out.

Apex Abrasives

South of Melrose, Apex Abrasives completed the production circuit of their mill and started bagging and shipping water-jet cutting media. They fine-tuned their scheelite recovery circuit as well as the drying circuit. The market softened early in the year when surplus garnet supplies from the closed Gulf oil industry started to be shipped inland.

Ruby Valley Garnet

Near Alder, Ruby Valley Garnet, LLC, exhausted their available reserves of placer garnet in Red Wash. They closed at mid-year to convert to mining their lode garnet deposit. The mill will be redesigned with a crushing and grinding circuit along with modifications to improve recovery and efficiency. Production is expected to resume early in 2011.

Holcim

At Trident Holcim continued with planned improvements at the plant. The clinker cooler was modified to decrease energy consumption as was the crushing-screen circuit. Transportation costs were steady. The industrial consumption increased slightly but the domestic building industry is slow to dead and is expected to remain as such until after 2013.

Barretts Minerals

East of Dillon, Barretts Minerals completed a new shop and facilities at their Regal mine. They have continued to upgrade the main plant and have purchased some support equipment. Exploration to expand the reserves has continued with success.

In general, demand has increased as has the workforce but not to the levels prior to 2008-2009. By doing more with fewer employees they have broken a number of production records.

Rio Tinto Minerals

South of Ennis, Rio Tinto Minerals continued production at the Yellowstone mine. Capital improvements include completion of energy efficiency upgrades in one processing circuit. Demand has increased modestly; somewhat in line with the overall industry recovery. They have hired a few staff in response to the recovery. Prices have been steady.

Rio Tinto continues to explore the divestment of the talc business. The Behre Dolbear Group Inc. newsletter has mentioned a possible purchase by Imerys in their newspaper a couple of times but since the price has changed between articles, they are obviously in negotiations. Rio Tinto Minerals has made no announcements.

RX Exploration

North of Helena, RX Exploration initiated limited production from the Drumlummon mine in the form of a metallurgical bulk test. An internal decline was driven on the Charley vein from the main haulage on the 400 to the 500 level. Initial mill recoveries were 92% for the gold and 87% for the silver. Production was above 1,200 Troy ounces of silver.

The company resumed development of the external decline and plans to connect the two declines thus providing an alternative escape route. Exploration is continuing on the many epithermal veins within the property. Drill intercepts on the D-block range from 8- to 22 ft and grades range from 0.28 opt Au to 0.84 opt Au. Silver values range from 1.69 opt Ag to 7.31 opt Ag. Intercept on the Charley vein range from 2 ft to 14 ft with grades of 0.22 opt Au to 2.23 opt Au. Silver values range from 6.30 opt Ag to 90.7 opt Ag in the highlighted holes.

Although there are spectacular intercepts, most reported holes appear to have a .0 opt - .5 opt Au flavor on intercepts over 2 to 5 ft in width.

Pumping of the workings was delayed briefly as the chemistry of the water has changed with pumping and modifications needed to be made with the water treatment plant.

Montana Tunnels

Near Boulder, the Montana Tunnels mine and Golden Dream project near Elkhorn continue to search for funding. Permits are in hand but venture capital has been limited.

Graymont Western USA

Near Townsend, Graymont Western USA continued burnt line production in a slowly improving market. The company reported fierce market conditions and intense competition. Prices have been stable. The company reported hiring a few employees.

They have initiated some development on their southern claims and report a high quality deposit has been exposed.

Golden Sunlight

Near Whitehall, Barrick Gold's Golden Sunlight mine received a permit to mine an ore body adjacent to the crushing circuit at the mill. This will allow the mill to open eight months early. The development for the Stage 5B optimized pit is on schedule and possibly a little ahead of schedule

The company has aggressively explored the mine area in search of satellite ore bodies and has identified three potential zones. One is very promising and funding has been secured for the coming year. Production will resume early in 2011.

Stillwater Mining Company

Near Columbus, Stillwater Mining Company has had a banner year and announced \$50 million profit for 2010. They have initiated their "Blitz" project at the Stillwater mine to expand their reserve base. They will extend the 5000 and 5600 levels east 13,500 ft. in search of higher grades and production. The company expects to develop 9.5 million tons of resources grading 0.71 opt PGM group metals. The project is expected to cost \$60 million. They are actively hiring miners as well as strengthening their miner training program. They have experienced a 5%-6% attrition rate of employees due to retirements and those seeking other opportunities.

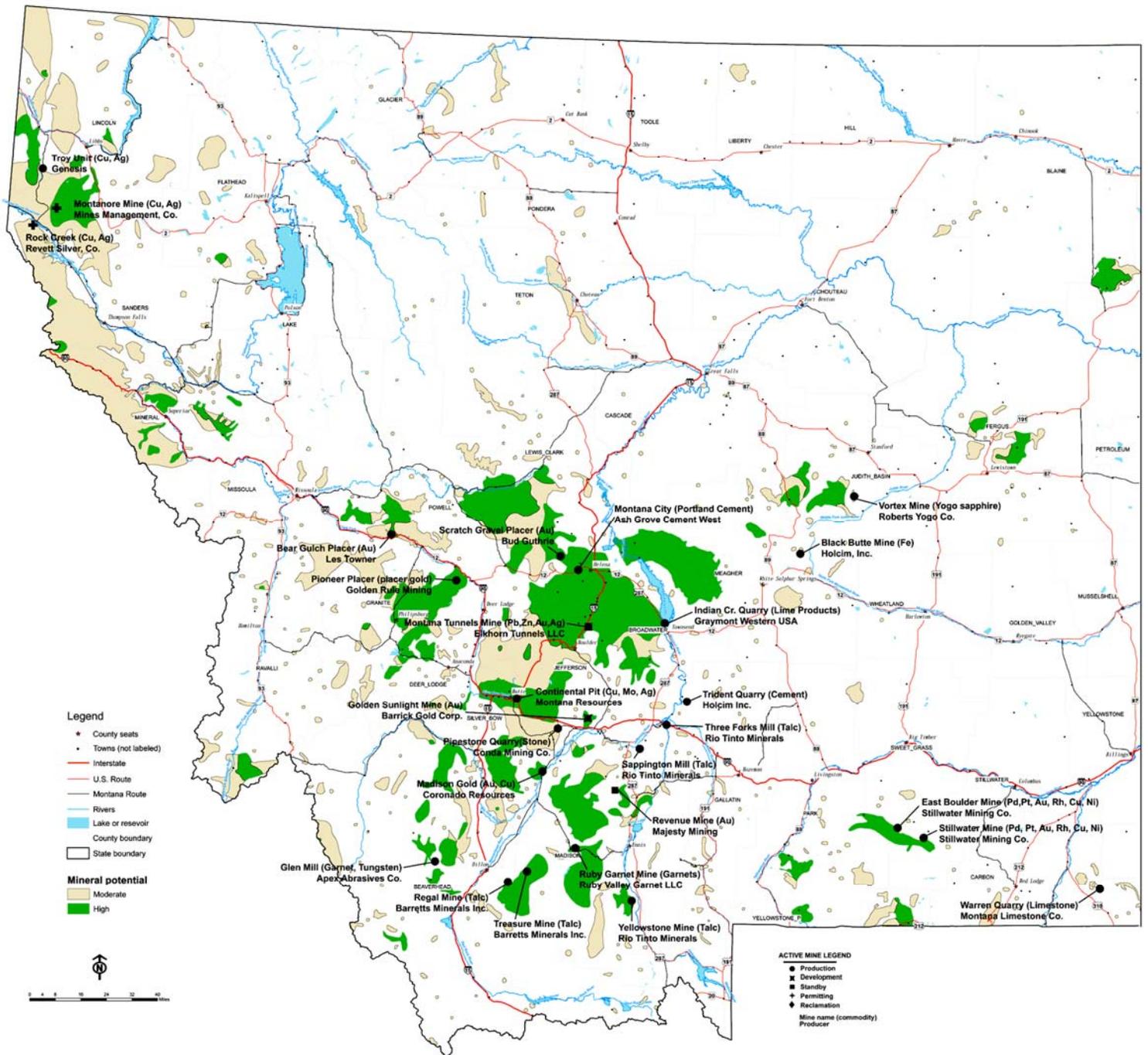
The company has been developing the mine for a Kiruna electric truck system. These 35-ton trucks will operate on a main line trolley system with a diesel electric auxiliary for dumping. The haulage levels will be paved to sustain production at optimum speed.

Many levels have been rehabilitated to resume production. Costs are up slightly but commodity prices are up more. To operate effectively with the MSHA safety rules, the company has assigned haulage and infrastructure levels to managers and miners for safety compliance. It appears the strategy is working.

At Columbus, the company has completed the second furnace at the smelter. They have also completed a new Catalytic Converter Recycling and Sample Plant. It contains an automated-x-ray system for assay of catalyst material.

South of Big Timber, the company continued production at their East Boulder mine. They initiated the Graham Creek project which will advance the mine 7,900 ft. to the west where they will develop an additional ventilation raise. They anticipate finding increased values and thickness in the drive. They expect to develop 6 million tons of ore grading 0.41 opt PGM metals over the next 5 years. The project is expected to cost \$8 million. The company has increased the labor force by 15 and has completed both of their life-of-mine ore passes. Production at the mine has been sustained with ramp and fill and sublevel mining methods.

Exploration



Lower Meadow Creek Placer

Near Superior, Ken Miller finally got permission to explore the placer gold deposit in Lower Meadow creek. He first constructed a new stream channel to divert flood waters from the process site. After completing his pond area and process site, he excavated a small area near the old drift from the 1930s. Some

values have been identified on the north side but the south side of the drainage is yet to be explored. Further work near the old drift is planned in the coming year.

Calumet Placer

One ridge over, in Quartz Creek, Shannon Anderson continued to define the pay zone on the Calumet claim. The zone appears to have been buried by material flowing out of drainage on the north side. Gold values are typically 25-28 ft deep on the claim. Under the alluvial fan, values may be in excess of 40-45 ft deep.

Grant Hartford Corp

Along the crest of the range near Garnet, Grant Hartford Corp continued defining their deposits by drilling through 67 reverse circulation holes (34,848 ft) and 4 NC core holes(1,699 ft). The drilling program has identified 940,298 tons grading 0.222 opt Au or 208,753 ounces of gold. They are preparing to submit an operating plan to the Montana Department of Environmental Quality. Preliminary estimates for a 250-300 Tpd mill have been completed as have mine development and production costs. They appear to have gathered enough data to reliably predict the location of the ore zones. The company appears to be approaching the development stage of their program.

Reynolds City Placer

Near Garnet, at the head of Elk creek, Richard Komberec tested gravels from 1800s' workings. Bedrock was exposed within 10 ft. The gravel contained a few cobbles but not many boulders. The majority of the gold was coarse and flaky. Substantial values were found in both the virgin ground and the old tails. Komberec will complete defining the pay zone limits in the coming year and prepare for mining.

Timberline Resources

South of Butte, Timberline Resources and Small Mines Development continued work on their Highland JV. They drove the decline 1700 ft and developed another 800 ft of workings for diamond drill stations. These were developed in both the hanging wall and the footwall. They have applied for an operating permit.

They developed a dewatering well that will be tested in early 2011. A bulk test is also anticipated early in 2011. Drill results are anticipated shortly into the new year.

Madison Mining Company

Near Virginia City, Madison Mining Company continued work in the Grant mine on an intermittent basis.

RX Exploration

Near Marysville, RX Exploration drilled 7 holes on narrow gold structures at the old Bald Butte mine. Results were not as good as they had hoped but then again they did not complete their planned program. They were snowed out but plan to continue drilling the spring.

Tintina Gold Resources, Inc.

North of White Sulphur Springs, Tintina Gold Resources, Inc. continued re-drilling holes on the former Cominco American Sheep Creek property. The property contains sediment-hosted zones of massive sulfide mineralization (copper-cobalt) in the lower part of Precambrian Belt Supergroup.

The land package currently held is comprised of 5,775 acres. The company will continue to verify the presence of high-grade copper-cobalt deposits to become 43-101 compliant. After that is accomplished, drilling will continue to expand available resources and explore for additional deposits.

Upper zone intercepts have ranged from 22 to 34 ft in thickness containing 3.0-3.4% copper and 0.15 – 0.36% cobalt. The lower zone appears to range from 5.6 ft to 20.8 ft thick with copper at 3.24 – 10.84% and cobalt at 0.03 – 0.11% cobalt.

Starfield Resources

Starfield Resources has a substantial land package in the Stillwater Complex near Nye. They did not initiate exploration after buying out Nevora but anticipate further exploration in 2011.

Coal

Coal production was up 12.8% to 44,711,771 tons. The most significant changes were at the West Decker and the Signal Peak Energy mines.

Decker Coal company at Decker reduced production at the East Decker mine by 5.8% to 2,699,951 tons. Production at the West Decker mine was reduced by 86.8% to 228,006 tons. This is the second year of massive reduction from a production level of 6.4 million tons in 2008.

Near Decker, Cloud Peak Energy Inc. increased production at their Spring Creek mine by 9.86% to 19,345,161 tons.

Westmoreland Savage Corporation increased production by 4.28% at their lignite mine near Sidney. Their production of 351,502 tons was well within their normal fluctuation levels of production.

At Colstrip, Western Energy Company increased production by 18.3% to 11,957,340 tons. The waste coal plant production was up by 20.5% to 273,006 tons.

Near Hardin, Westmoreland Resources Inc. decreased production at their Absaloka mine by 7.5% to 5,467,954 tons.

Near Roundup, Signal Peak Energy increased production from their underground coal mine by 406.3% to 4,388,851 tons. This change has come with the first full year of production with the new longwall in place.

Coal Exploration

Coal exploration is slowly chugging through the permitting phase of operations. Arch Coal, Inc., after purchasing the leases on 572 million tons of Otter Creek coal located in southeastern Montana, is working through a prospecting permit for 44 drill holes. The company is anticipating a full mining permit within a year and an operating mine within the decade.

Near Melstone, Maple Carpenter Creek, a subsidiary of Maple Energy, has a permit application for a 300,000 ton test pit pending before state regulators. The company is anticipating a producing underground mine by 2013. They are also considering a second underground mine known as Snider Ranch by 2014.

Management Energy, Inc. is working on Bridger-Fromberg-Bear Mountain project near Bridger. This project could encompass more than 56,000 acres of coal-bearing land. In September, the company merged with Maple Carpenter Creek Holdings, Inc. and then changed its name to MMEX Mining Corporation. No additional field work has been detected.