

## Crews dig deep to reach coal at Royal Falcon



Despite working amid brown and white sand dunes, preparing the underground mine at Royal Falcon has been anything but a day at the beach for Larry Fuhrhop and his crew.

“I’ve never been around a pit with this much sandstone in my life,” Fuhrhop said as he negotiates his pickup truck down a switchback trail into the freshly-created boxcut. “Sandy material annihilates cutting edges and undercarriage. It’s extremely abrasive.”

Battering equipment isn’t the only problem in dealing with sandstone – especially in such massive quantities. Fuhrhop and the Royal Falcon team involved with getting this mine up and running have faced challenges — some predicted and some unforeseen. But through all the twists and turns thrown at them, they have prevailed. Production at Royal Falcon commenced in late July.

“Every location is different. This one certainly is,” he said.

Fuhrhop tucks his vehicle to the back of the cut and surveys the action that lies ahead. A 992G front-end loader is scraping away at the face of the highwall. Beneath it are scattered black shards, quite noticeable from the sandy hues everywhere else.

“That black there is the first shale we’ve hit,” he said.

Fuhrhop is about 160 feet below surface grade and can now almost smell the coal. After gouging through three feet of topsoil and 140-feet-plus of sand it’s the moment he’s anxiously awaited since the first tractors towing pans arrived at a fallow cornfield between Elkhville and Royalton in October.

“We thought we’d hit coal at 158 feet and be on it by May,” he said. “It didn’t work out that way.”

Omens that schedules at Royal Falcon would be pushed backed appeared from the get-go. Delays in permitting pushed back the start up date one month. Once the okay was given, 10 inches of rain deluged the site. Next, they struck water at the 75 foot depth. For the next 90-plus feet water had to be removed as the hole was advanced.

“We have to keep that pump lower than the 992G,” Fuhrhop said. “I move that thing every day.”

Barry Sargeant pulls up next to Fuhrhop and the two men debate how much deeper they’ll have to go to find coal. Sargeant’s money is on 170 feet; Fuhrhop thinks it’s around 172-175 feet. When you are responsible for displacing material from a 500-foot by 270-foot pit, even a few inches more in depth is significant.

Sargeant explains the distinctions between the Royal Falcon and Prairie Eagle sites. The first two are obvious: a depth of 170 feet as opposed to Prairie Eagle’s 90-foot boxcut; the second is the sandstone strata where Prairie Eagle is predominately limestone.

There are other differences between the two operations, as Sargeant points out.

“We are digging a hole for an underground mine at Royal Falcon and staying there for 20 years,” he said. “Prairie Eagle was part of a stripping operation. We were going to strip that area anyway. Royal Falcon is an intensive and expensive hole to dig. We are not stripping coal first. It’s all infrastructure. This is a construction job. We are making a basement.”

The descent will continue once the basement door has been opened. At Prairie Eagle, the mine face starts at 90 feet and goes no deeper than about 200 feet. At Royal Falcon, miners will gradually descend from 160 feet to a 300-foot depth.

What they will find is perhaps the finest pocket of low sulfur coal left in Southern Illinois. Like Creek Paum, it’s a low-sulfur, high quality coal. It also runs thick – as much 13 feet in some places (PE’s seam is 6-8 feet, by comparison).

“Most sulfur comes from seawater,” Sargeant said. “This is non-marine energy shale. Prairie Eagle is marine limestone.”

If it’s so good why is it still there, one asks especially when Consol was once operating just a mile south of Royal Falcon?

“Consol was stripping there but after 100 feet they found they couldn’t hold the spoils,” Sargeant said. “The sandstone turned to sand under the big equipment. The price we pay for good coal is dealing with the sandstone.”

Dale Winter has been planning for months the day they punch through the face of the highwall. Among his many charges is maintaining a stable roof. The technique employed will be different than at Prairie Eagle where bolts are driven into the ceiling.

“It will be a totally different kind of roof control than at Prairie Eagle; fully grouted and torque bolts,” Winter said. “Roof control costs will triple here.”

But Winter is confident with the system. He points out that two other underground mines near Royalton operated from 1907 to 1952 under the same geology, but without

today's technology, with any problems.

The thickness of the coal seam at Royal Falcon will require more labor-intensive techniques to mine than at Prairie Eagle, Winter said.

"That height of the coal seam will mean extra work hanging cables and building roofs. Even dusting the roof will be different. We can only throw dust 8 feet up," he said. "A lot of work at Royal Falcon will be done off of ladders."

Fuhrhop said a lot of work must be done before this mine is fully operational. Another 150 feet will be added to the width of the boxcut and the main incline will be relocated.

More also needs to be done. Groundwork for a mine office will begin soon. A scale needs to be set and powerlines strung. The retail road needs to be paved.

As he drives down that road which connects the mine to Illinois 149, Fuhrhop notes how sandstone makes for a smooth surface. At about two miles long, it took 200,000 yards of material to create it.

"It really does pack well. It's great for this," he said.

Underground equipment is now arriving and setup should start in August. Once this happens a new chapter will begin.