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Mining expert makes major discovery

Tom Keyser
Business Edge

An energetic livewire with a scientific turn of mind, Robin Phinney is equally at home in the lab and the executive office.

But, it was a shrewd discovery in the field that led to the creation of Karnalyte Resources, a Calgary-based mining enterprise concerned with the development of both magnesium and potash products, with an eye to both industrial and agricultural markets.

Phinney founded the company more than four years ago, after his discovery of a major deposit of carnallite, a hydrated mineral of potassium magnesium chloride, although, as he says, "I was looking for magnesium brine at the time, thinking I could make magnesium oxide so I could create a new generation of oilwell cement."

Since then he has found the financial backing to set Karnalyte's corporate wheels in motion and has taken the company public (TSX: KRN). Although Karnalyte won't be in production until 2015, Phinney's vision is clear. He and his highly experienced team intend to operate a solution-mining facility in Saskatchewan that will initially produce 625,000 tonnes of potash a year, eventually ramping up annual production to 2.125 million tonnes.

Karnalyte also plans, in time, to add magnesium production to the mix. Phinney says it's just as valuable as potash, serving a large industrial minerals market.

1. Why don't we start by discussing the interesting mineral discovery that led to the creation of Karnalyte Resources?

I was looking for magnesium brine, originally. I had remembered an old drill well that I had come across back in 1983, when I was working for Potash Corp. as a chemical engineering design guy.

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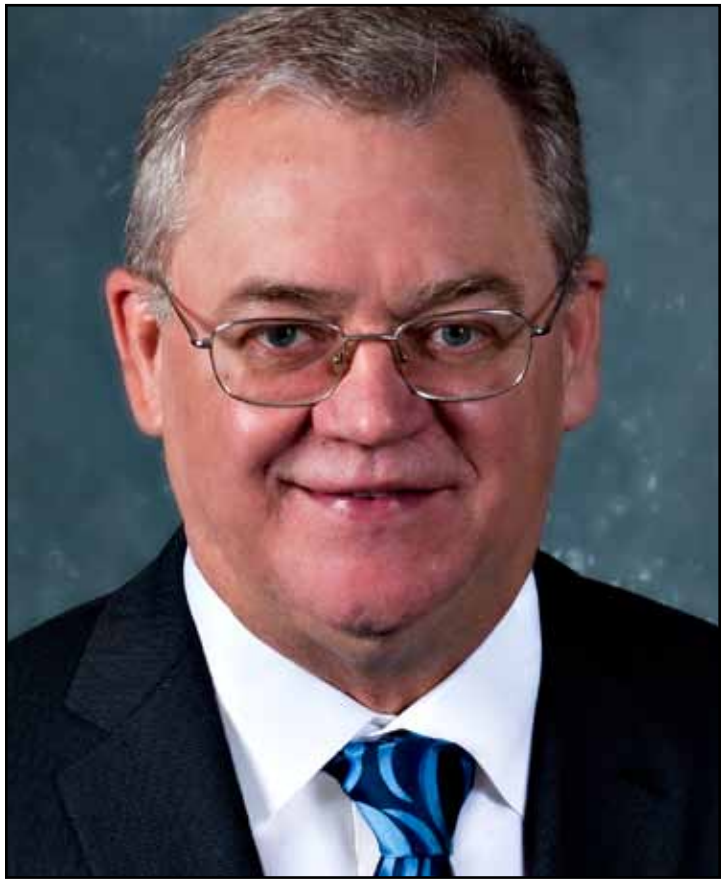

20 Questions with Robin Phinney

Title: Founder/CEO/director, Karnalyte Resources Inc.

Born/raised: Kenora, Ont.

Family: Married to Jean, father of three

Education: Chemical engineering degree, Lakehead University.

Achievements: Personally holds more than 30 patents worldwide.

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Education: Chemical engineering specialty was in pulp and paper

I was a young engineer and I looked at the mineral form and it was magnesium chloride KCl that was 35 per cent water. The geological guys told me that they didn't use that stuff, that it was "bad," so I said OK and left it alone. That bothered me for years. Much later, when I was doing research on cement, I found that I needed a high quality magnesium chloride. So I remembered that old drill well and went to the Saskatchewan government.

2. So, that discovery became the basis for your current enterprise. What is carnallite, exactly?

Potash is a derivative of carnallite (magnesium chloride KCl). The ore body we have is quite rare. I've got 16 storeys high of this pure mineralization that is 75 per cent pure carnallite and 25 per cent is the potash sylvite mineral that conventional producers rely on. Carnallite is found in the form of a hydrate, 35 per cent water. So, it's already pre-dissolved. That's really good. Using a traditional process, we add a little bit more water and a little bit of temperature and we get full saturated potash and magnesium coming out of our wells. It's a very simple process that's been around since 1860. When I was doing my research, I found a 40-year-old plant in Germany that was using this process. They are helping me out in setting up the underground and surface facilities with the technology.

3. Where is your asset situated?

The ore body is located at Wynyard, Sask., on a property of 120 square miles. We're just doing the engineering on the production facility right now. We just got the surface stripping completed. We're planning to be up and running within two years.

At its Saskatchewan property, Karnalyte Resources has '16 storeys high' of mineralization that is 75 per cent pure carnallite and 25 per cent potash sylvite.

4. You clearly know your mineralogy inside out, did you develop these interests as a young man?

Actually, my chemical engineering specialty was in pulp and paper, of all things. I was from a pulp-and-paper town and that was the chemical engineering discipline offered at Lakehead. But, I never did work in pulp and paper. I ended up getting a job at Inco up in Thompson, Man., where I spent a year. Then I returned to university and worked there teaching engineering labs for a couple of years.

5. Where did you end up after that?

I did all the preliminary designs and put in a 20,000-tonne upgrade at the Kidd Creek zinc plant in Timmins, Ont. From there, I wound up at Potash Corp. They came around Timmins to recruit people but I missed them because I was in Toronto, for some reason. So, I sent out a resume when I got back. They called me up and interviewed me a couple of days later. When I got back to Timmins, I had a new job.

6. What did you wind up doing for Potash Corp.?

I started off at Rocanville, Sask., working with the commissioning team for Phase II. After that, I got involved with engineering design for the process and equipment selection for the upgrade at Lanigan. After Lanigan got built, I put in projects all through Potash Corp., including a complete redesign of the Cory facility. There was also the development of a little pellet process, making little fertilizer pellets. They're the damndest little things. They're very easy and economical to make, with superior handling characteristics. We'll be making them at our plant, once we get up and running. I put all the improvements into our process for making these pellets. I also have new patents for them.

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Discovery: 'Sometimes, you just get lucky and hit one'

7. So, you got a lot out of your association with Potash Corp.?

I got well educated there, more of an education than I could ever imagine. Something else happened while I was working there: I spent one afternoon in the lab and came up with a process to make potassium sulfate and that technology led to the creation of Big Quill Resources. My first effort worked so well it only took me one day to accomplish that. Sometimes that happens. You just get lucky and hit one.

8. After leaving Potash Corp., you continued to learn on the job, didn't you?

That's right, I went over to Colt Engineering, which was a good place to be. I was pretty lucky on technology there, too. One of my corporate clients was working on flue gas desulphurization, taking the sulphur and nitrogen out of coal-fired plants. I was able to come up with a process that would convert SO_2 and nitrous oxide into fertilizer. So you don't have any throwaways. Instead of making gypsum piles, you make ammonium sulfate and sell it off to the farmer. They were impressed by the technology so they asked me to join them.

9. You really have been around. After that, you became interested in developing improvements in concrete manufacturing processes, didn't you?

That was around 2003. I went after a mineral deposit I knew of in Saskatchewan. It was a deposit of kaolin. If you roast it at 700 degrees Celsius, it transforms into another mineral form called metakaolin. You can use that to replace up to 10 per cent of cement in concrete and you end up with concrete that's about 20 per cent stronger. That led to the founding of Whitemud Resources. I left them in 2007 because all the engineering was done. So, my job was finished.

10. Your newfound interest in concrete technology indirectly led you to your current interests, correct?

While I was doing research on cement, I realized that magnesium oxide could be a pretty attractive product. So, I remembered that brine well in Saskatchewan and thought maybe I'd go back and have a second look. Nobody had applied for the property, so I got it for $48,000. I had to wait four months until the government finally gave it to me. Then they invited me down to the property to inspect a couple of drill cores on the property that weren't recorded. They had never been assayed. As soon as I looked at them, I got excited by the high quality of the potash ore.

11. Can you elaborate on that?

It turned out to be all continuous, all good grade, no clays, no sulfate minerals, no bad stuff in it, it's all clean. I got my assays back and the news was good. But, I wanted to make sure that I wasn't dealing with a single-glory hole. So I paid $960,000 for 3D seismic on 12 square miles to see if there was more of it there. It turns out that 3D seismic is very specific to magnesium. So, I got a perfect snapshot and eventually found that I was sitting on more potash in one location than anybody else in the industry has in Saskatchewan.

12. So, that is the seed of the Karnalyte story. As you said, you're still a couple of years away from going into production. What's going on with Karnalyte at the moment?

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Heavy lifting: 'We've passed most of our major milestones'

Drilling at Karnalyte's property near Wynard, Sask.

We've chosen to work our way into the marketplace by taking small steps. We've just finished signing a strategic partnership with a company from India. They came in for 20 per cent of the company, paying $45 million, and they gave me a contract for 350,000 tonnes for the first 20 years at market prices. They liked our product line, those little fertilizer pellets we talked about before.

13. How did you manage to find financing to get Karnalyte off the ground?

After I got the 3D seismic, I went to the brokerage houses but I didn't like what they were telling me. So, I decided to approach friends and family. I took a small number of founder shares and set up a 10-million share company. I valued the shares at a buck a share and I took a million myself, since I paid for all this stuff. Then, I thought I'd see if friends and family would come in for $2 million, $4 million, whatever.

14. And how did that work for you?

Well, I started one Thursday at 11 a.m. By 3 p.m., I had $5 million. I couldn't believe it. I tell you what, that's the most exhilarating thing you can do.

15. Sounds exciting. But that was just the beginning, wasn't it?

At that point, I had to complete a project assessment on the property. I gave the bank a lot of heartburn on that. We produced one drill core, we had enough of a proven and probable reserve base for a 500,000-tonne plant for 20 years. That was actually a problem. The bank was having a hard time believing it.

16. So, how did the bank respond?

The bank helped me procure a private placement for $15 million at $5 a share. We got about $9 million from institutional investors and $6 million from friends and family.

17. When did you go public?

That was in 2010. We got listed on the Toronto Stock Exchange, on the big board, under the symbol KRN, at $8.60 a share.

18. So, a lot of the preliminary heavy lifting has been completed?

We've passed most of our major milestones. It's just a matter of putting financial arrangements in place to move the project forward. We're sitting in a pretty good position, with $60 million in working capital. It's a $600-million project, so we're just putting the debt side together right now and then we'll be looking for the equity to finish off the financing.

19. Have the banks decided to get involved at all?

There's another due diligence we've just completed for the debt side so we can qualify for project debt. We're through all of that, we're fine. We're just working with the banks now to see how much they want to lend us or how they're going to get involved. Then we'll find out what we need to raise in terms of equity.

20. Have you been able to interest key institutional investors in the project?

We're getting a lot of interest. Manulife out of Boston is a big player with us. Then there's Gujarat State Fertilizers & Chemicals Limited (GFFC) of India, the group I mentioned before. They're a big publicly traded fund, giving us a take-or-pay contract for 350,000 tonnes for 20 years at market price. That's instant credibility. That's a friend with a kiss on the cheek.

Commercial real estate leaders slightly more optimistic

Business Edge

In the face of strong fundamentals, Canada's commercial real estate leaders felt more positive about the health of the sector in the first quarter of 2013, but lingering uncertainties continued to temper their optimism, according to The First Quarter 2013 Canadian Real Estate Sentiment Survey released recently by The Real Property Association (REALpac) and FPL Advisory Group.

The quarterly survey measures the current and future outlook of Canada's top commercial real-estate executives on overall real-estate conditions, real-estate asset values and availability of capital. Top findings for 2013's first quarter include:

- Asset prices continued to see considerable gains.
- Some respondents expressed concern about future interest rate change, while others do not expect a reversal of this trend in the near- to mid-term.
- Debt is widely available despite heightened underwriting requirements; lenders remain eager to put capital to work.
- Equity capital is abundant as investors continue to search for yield, though many respondents cited deployment of capital as a challenge.

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Underscoring such findings were respondent comments such as:

"The market is fuelled by a lack of reasonable investment alternatives. No other option can offer the yields and relative safety of real estate. As long as investors have nowhere else to go and real-estate supply and demand fundamentals continue to remain strong, this rally still has legs. That said, any shift in fundamentals or change in credit conditions will cause an immediate adjustment and stall the cycle."

> "As long as investors have nowhere else to go and real-estate supply and demand fundamentals continue to remain strong, this rally still has legs."
>
> - survey respondent

"I think we're back to where we were in 2006 and 2007. Cap rates are even lower than they were. There is still a lot of capital chasing assets. The financial market is there and available. We're seeing more and more high-net-worth individuals investing in Canada for two reasons: one, returns are still very good in Canada for certain foreign investors (those from Europe, Africa, Asia) and two, the economy is doing well."

"There is so much money chasing property in Canada and the REITs, using a lot of leverage, have been dominating the buyer profile. Because of that, a lot of our institutional clients are focusing on the U.S. right now just to find places to deploy capital. The biggest challenge right now is helping people find a way to deploy the available capital."