

Dajarra Project

Superior Resources Limited

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QUARTERLY ACTIVITIES REPORT 31 DECEMBER 2010

HIGHLIGHTS

- An intersection of 10m of 10.3% P₂O₅ from 8m at the Wills Phosphate Prospect
- An application for an Exploration Permit in north Queensland and agreement to purchase a Mining Lease within this tenement
- Combined cash and liquid assets of \$4.8 million

EXPLORATION ACTIVITIES



The Dajarra Project is situated 150km south of Mount Isa (Figure 1). The main target in the Dajarra Project is a major copper or leadzinc-silver deposit of the Mount Isa type but potential for phosphate exists in the Wills Phosphate prospect in the eastern part of the project area.

Figure 1.Dajarra Project and Wills Phosphate Prospect – Location.

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Wills Phosphate Prospect

As reported on 10 December 2010, a total of 22 drill holes were drilled in two areas in a drilling program at the Wills Phosphate Prospect (Table 1).

Hole	Easting	Northing	Dip	Depth
	(MGA 54)	(MGA 54)	(°)	(metres)
WC001	355457	7581539	-90	18
WC002	355515	7581361	-90	12
WC003	355559	7581158	-90	15
WC004	355639	7581141	-90	21
WC005	355747	7581175	-90	25
WC006	355725	7581272	-90	25
WC007	355912	7581329	-90	26
WC008	355811	7581419	-90	19
WC009	356013	7581310	-90	27
WC010	356002	7581437	-90	18
WC011	356091	7581252	-90	21
WC012	356179	7581364	-90	27
WC013	356276	7581399	-90	18
WC014	356348	7581406	-90	21
WC015	356406	7581519	-90	28
WC016	356346	7581614	-90	20
WC017	356263	7581549	-90	21
WCS001	358080	7573048	-90	17
WCS002	358978	7572912	-90	22
WCS003	359565	7572226	-90	27
WCS004	360003	7572228	-90	14
WCS005	357753	7573010	-90	3

Table 1. Wills Phosphate Prospect drill hole details.

Seventeen of the drill holes targeted a Cambrian phosphorite horizon capping a mesa to the east of the Dajarra to Boulia Road which, from previous surface rock-chip sampling, had returned assays between 1.7% and 18.3% P_2O_5 . The exposed material which had been subjected to surface sampling was leached and brecciated and the drilling was designed to test for better grade material beneath the cap of the mesa.

The drilling in this area indicated that the leaching evident in outcrop extended beneath the mesa and, while phosphate occurred in most of the holes, no high grade phosphate was intersected. The best intersection from the drilling was in hole WC005 with an intersection of 7m @ $6.74\% P_2O_5$ from 3m. This area is now considered to be adequately tested.

The remaining five drill holes were scout holes which targeted a soil covered area of poorly outcropping Cambrian sediments some 9km south of the mesa to determine if this southern area contained a prospective Cambrian phosphorite horizon. Of the five holes drilled in this area, hole WCS003 intersected moderate-grade phosphorite averaging 8.8% P_2O_5 over 13 metres from a depth of 8m. This broad intersection contained a 10m section from 8m averaging 10.3% P_2O_5 .

Of the other four widely-spaced scout holes in the southern area, one intersected Proterozoic basement and three intersected Cambrian sediments. None of these latter three holes into Cambrian sediments intersected significant phosphate. However these holes were all shallow and phosphate may have been intersected if the holes had been drilled to greater depths.

Given that hole WCS003 was a scout hole in a soil covered area, the broad intersection of



moderate grade phosphate is an encouraging result. While higher phosphate grades would be required for a resource there is apparently scope for this in the larger interpreted fault block of prospective Cambrian sediments in this area.

The interpreted block of Cambrian sediments in this southern area lies both within a granted exploration permit and an application for an exploration permit held by Superior. It is uncertain when the exploration permit application will be granted and therefore it is unclear at this stage when a more comprehensive program of mapping and drilling can be completed on this prospective area. However, some mapping and sampling work is planned for the granted exploration permit during the next quarter.

Cockie Project

An application for an exploration permit (EPM 18987) was submitted over an area 210km northnorthwest of Townsville in north Queensland during the quarter (Figure 2).



Figure 2. Superior Resources Limited – Cockie Project and ML6750 location

The exploration permit application covers a belt of volcano-sedimentary rocks of Cambro-Ordovician age which has potential for copper-lead-zinc-silver-gold deposits of the volcanogenic massive sulphide (VMS) type (eg Balcooma, Thalanga and Reward deposits of north Queensland). The Balcooma deposit, which was discovered by Superior's Managing Director in the late 1970s, lies approximately 16km west of the area.

The exploration permit application is a competing application with another explorer.

Superior has also recently signed an agreement to purchase a granted mining lease (ML 6750 "One Mile") of 128ha (shown in Figure 2) which lies within the exploration permit application area and which covers a gossan outcrop (Photographs 1 and 2) with a strike length of about 400m.





Photograph 1. One Mile - main gossan outcrop



Photograph 2. One Mile - gossan exposed in a gully at the southern end of the area



The area is deeply weathered and has partial laterite cover. Records indicate that eight drill holes have been drilled into the mining lease area of which two intersect the disseminated to massive pyrite zone at depth below the gossan. Assay results from the historical drilling and surface rock-chip sampling of the gossan show only low-grade copper and gold values but the area is poorly drilled.

Purchase of the mining lease will allow exploration of the area to commence while the exploration permit application is processed through the Queensland government.

Superior proposes to conduct more modern geophysical work on the mining lease to prioritise targets for drilling.

Project Generation

During the quarter Superior continued investigations of new opportunities for additional projects in Queensland with a number of projects being evaluated. The purpose of this work is to reduce the level of greenfields exploration and to increase brownfields exploration. This work will continue until suitable projects are acquired.

Tenements

The current tenement situation in northwest Queensland is shown in Figure 3.

Considerable changes in the exploration permits in northwest Queensland, as indicated in Figure 3, are in progress and should be completed in the next quarter. These changes include:

Dajarra Project:

Total relinquishment of the Cottonbush 1, Upper Smoky and Sulieman South exploration permits and relinquishment the eastern part of the Smoky Creek exploration permit. The retained areas of the Dajarra Project will cover the two larger areas of Mount Isa Group rocks at Elizabeth and RFZ, the Wills Phosphate Prospect and an area with gold potential in the western part of the project area.

Inca Project:

Total relinquishment of the Inca Creek exploration permit. The retained area of the Inca Project will cover the area with phosphate potential and the VTEM anomalies in the Buckley River area.

Myally Project:

Total relinquishment of the Myally Creek exploration permit and abandonment of this project. The Queensland Government has failed to change its policy of not allowing uranium mining in Queensland.

Cockie Project:

An application for an exploration permit (EPM 18987) was submitted over an area 210km northnorthwest of Townsville in north Queensland during the quarter. An agreement was also signed to purchase a mining lease within this exploration permit application. Details are included under the Cockie Project (above).





Figure 3. Superior Resources Limited – Project and tenement locations



CORPORATE AND FINANCIAL

This quarter saw the resignation of Mr Lawrie Litzow as Chairman and Company Secretary and the appointment of Mr Peter Hwang as a non-executive Director and Mr Carlos Fernicola as Company Secretary.

Mr Litzow was the founding Chairman and Company secretary and his input into Superior during its early years is acknowledged and appreciated.

In addition to cash of \$2.4 million at the end of the September 2010 quarter, SPQ holds 7 million Deep Yellow Limited shares with a value of \$2.4 million at the ASX closing price of \$0.34 on Tuesday, 25 January 2011. This makes total cash and liquid assets available for exploration of approximately \$4.8 million (6.2 cents per share).

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Further Information:

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The information in this report that relates to Exploration Results is based on information compiled by Mr Ken Harvey, a full-time employee of the Company, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Harvey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Harvey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Definitions:

"gossan" – A red-brown to black ferruginous deposit remaining after the oxidation, weathering and decomposition of the original sulphide minerals in a vein or ore zone.

"laterite" – A surface formation in hot and wet tropical areas which is rich in iron and aluminium and develops by intensive and long lasting weathering of the underlying parent rock.